

SPU's ACCOUNTABILITY AND AFFORDABILITY STRATEGIC PLAN

FINAL REPORT – June 2019



**Seattle
Public
Utilities**

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Introduction

Seattle residents and businesses depend on essential utility services. Safe drinking water, effective sewer and drainage systems and reliable solid waste collection are critical to the health of the city and its people. Seattle Public Utilities (SPU) is responsible for providing these life-sustaining services and must do so affordably by being accountable, efficient and community-centered. This Accountability and Affordability plan (Plan) focuses on achieving these goals. Doing so aligns with SPU’s adopted strategy of “Operational Excellence” by providing “reliable, affordable, efficient, and high-quality services to all customers.”

Seattle is becoming increasingly unaffordable for many residents and businesses. Higher costs of services affect SPU’s customers directly, particularly customers with the least ability to pay. In addition, the value that SPU provides to customers is not always clear which makes it important for SPU to demonstrate results for the dollars spent. Enhancing accountability and affordability is critical to SPU’s long-term success and this Plan includes specific strategies and actions for improving both.

Affordability focuses on “ability to pay.” For SPU, this means providing essential services and providing pricing and assistance to customers that ensure everyone has the service they need. This pricing is often constrained by the need to maintain infrastructure, encourage conservation, protect the environment, and protect public health. Ensuring affordability includes strategies for reducing costs, increasing productivity and efficiency, investing in assets that have multiple benefits, removing barriers to service access, and fully using systems and organizational capacity, both in the short and long-term.

SPU’s commitment to affordability extends beyond rates and includes planning and implementation of utility policies, services, projects and programs. SPU explicitly plans and responds to the ways in which lower income customers might access and be impacted by all SPU business. This requires dialogue and understanding of how utility practices are neutral, help or hinder affordability. Understanding and taking actionable steps is critical in realizing SPU’s goals to be affordable and community centered.

Accountability focuses on how SPU demonstrates results. For a utility with many stakeholders and customers, this means people and organizations understand how resources are being spent, the value for investments is clearly demonstrated and transparent, and the utility takes action and makes progress on the long-range goals of the community. Ensuring accountability includes strategies for measuring and demonstrating results, engaging customers and stakeholders in identifying and implementing investments, being fair and equitable, and being responsive to the day to day essential needs of the community.

How we work matters. This Plan focuses on how SPU delivers capital projects, ensures access to services, partners with organizations, and conducts other business practices. The utility must continuously take a hard look at how it operates and assess ways to improve service, provide better value, and focus in a sustained and disciplined way on accountability and affordability. This Plan builds on strong practices within SPU and emphasizes work to be done through six practice areas of strategies and actions:

- 1. Capital Planning and Delivery.** Increase the speed and efficiency of planning and delivering of capital improvement projects while maximizing community value.

2. **Efficiency and Improvement.** Develop a culture of continuous improvement to enhance value to our customers and improve efficiency and performance.
3. **Customer Assistance.** Focus on the affordability of SPU's services, with a special (but not sole) focus on the needs of low-income customers, and the portfolio of assistance programs and tools that can be strategically deployed to meet the needs of diverse customers.
4. **Partnership Opportunities.** Improve SPU's ability to partner with organizations, institutions, and companies to leverage broader benefits, reduce costs, share risks, and improve outcomes for the communities that we serve.
5. **Regulatory Alignment.** Reduce the cost and risk of meeting regulatory demands while ensuring public health and safety, environmental protection, a vibrant local economy and social equity outcomes.
6. **Budgeting and Financial Management.** Streamline and integrate budget and financial planning practices and align investments with the long-range strategic goals of SPU and the community.

Responsive to Council's Direction. City Council initiated this Plan in 2017. Resolution 31760, which approved SPU's 2018-2023 Strategic Business Plan Update calls for SPU to prepare an accountability and affordability strategic plan focused on managing future rate increases and corporate performance for inclusion in the 2021-2026 Plan Update.

An Immediately Actionable Plan. The strategies and actions included in the Plan are based on the work of a cross functional SPU core team and more than 150 participants and subject matter experts. Work was conducted over an eight-month period through more than 20 work sessions and in concert with SPU Executive leadership. SPU's customer review panel provided review and feedback on the recommendations of the report. Building the plan collaboratively with people doing the work helps ensure buy-in, understanding, and commitment to move forward on the recommendations which improves SPU's chances of success.

The strategies and actions set forth are both ambitious and pragmatic. For example, SPU plans to substantially improve the speed and effectiveness of the capital planning and delivery program. This is a significant undertaking impacting a \$1.5 billion, six-year capital program and the work of hundreds of SPU team members. The gain for the community has greater significance – by engaging in this important work SPU will deliver more value more quickly and the impact will be tangible.

"Go First Actions" and moving forward. Each practice area and strategy identify one or more actions that will advance efforts over the next one to two years. Overall, the strategies and actions will be implemented over the next five years and the plan will be updated in conjunction with future Strategic Business Plan updates every three years.

The Plan includes 12 strategies and 47 tangible actions for moving forward. Work has already begun on eight of the actions and implementation of an additional 25 actions will occur in 2019 and 2020. In addition, SPU will report on the progress of the Plan every six months in conjunction with updates on the 2018-2023 Strategic Business Plan implementation progress.

AT A GLANCE: Accountability and Affordability Strategies and Actions

This “At a Glance” section provides all strategies and actions contained in the plan in this report. More detailed information on each strategy and action, along with background and purpose, can be found starting on page 9.



Go First Action: SPU identified these actions as the immediate next step that will be accomplished in the next 1-2 years.

Capital Planning and Delivery

Why is this practice area important? Capital projects and financial policies account for approximately 25% of the total 2018-2023 SPU utility rate. Improvement and changes to the planning, speed and delivery of this large capital program can have significant effects on the affordability of SPU’s rate to customers and the beneficial impact of SPU projects.

Strategy 1: Capital Planning. Coordinate capital planning across LOBs and across other City departments to maximize potential for community value.



Action 1A. Improve capital planning coordination by regularly convening SPU branches to identify planned capital improvements within common geographic locations.



Action 1B. Integrate planning across the Drainage and Wastewater LOB to identify future investments that provide the greatest community and environmental benefits.



Action 1C. Develop Drainage and Wastewater capital planning guidance to consistently value multiple community and environmental benefits in CIP options analysis.

Action 1D. Apply guidance and lessons learned from the drainage and wastewater LOB work in B and C to all lines of business.

Action 1E. Integrate standard portfolio project management practices into the development and monitoring of the CIP such as strategic prioritization across LOBs and portfolio performance and risk analysis.

Action 1F. Partner with SDOT to identify opportunities for improved coordination and delivery of capital projects.

Strategy 2: Capital Delivery. Improve capital project delivery by reducing project costs, accelerating project delivery, and providing multiple community benefits. Focus the stage gate process to provide customer value through streamlined and cost-effective decision making that requires the minimally optimal analysis to supports life cycle cost evaluation and strategic priorities.



Action 2A. Streamline the project approval process to reduce decision cycle times and better align delegation of approval authority (decisions made at the right level).



Action 2B. Incorporate reprioritization and elimination of stalled or lower priority projects into capital monitoring practices.



Action 2C. Improve the efficiency of capital project management by eliminating duplication of project management systems and activities.

-  Action 2D. Review and streamline capital project options analyses leading to stage gate 2 to reduce cycle times and project costs.
-  Action 2E. Revamp the Asset Management Committee (AMC) review process.
-  Action 2F. Transition to the use of portfolio reserves and/or pooled risk reserves to reduce the total dollar amount of management reserves.
-  Action 2G. Reduce total cycle time in the procurement full solicitation process.
- Action 2H. Better incorporate operational considerations into capital project development and review.

Strategy 3: Capital Reporting and Transparency. Improve the transparency and accountability of project delivery through improved financial data and reporting, and responsive customer service (LOBs as customers).

-  Action 3A. Make available and use actionable data on a quarterly basis to identify project risks and issues early on so that adjustments can be made in a timely fashion.
-  Action 3B. Improve PPM (SPU’s enterprise project management system) so that LOBs and management can easily find the information they need.

Efficiency & Improvement

Why is this practice area important? The strategies and actions of this practice area are intended to slow the growth in SPU’s rate path by identifying and taking action on hundreds of small and large opportunities for improving service to the customer and reducing non-value-added activities and cost in SPU’s work. Examples of non-value-added activities include “waste in process” such as having large inventories of parts, equipment downtime or being unavailable when teams are ready to work, and fixing the same problem twice. Focusing on work in this way not only improves efficiency and productivity; when done well, and in an engaged and respectful way with team members, it can improve employee engagement and job satisfaction.

Strategy 1: Improvement and Efficiencies. Develop a culture of continuous improvement to enhance value to our customers and improve efficiency and performance.

-  Action 1A. Practice and Learn Lean Problem Solving. Pilot lean problem solving within the Drainage and Wastewater (DWW) Branch.
-  Action 1B. Identify and resource stalled or incomplete improvements.
-  Action 1C. Plan for and sustain improvement across SPU. Integrate improvement planning and measurement into strategic and business planning.
- Action 1D. Systematically identify and take action on improvements across SPU.

Customer Assistance

Why is this practice area important? The Customer Assistance Practice Area is focused on the affordability of SPU’s services, with a special (but not sole) focus on the needs of low-income customers. This area targets

programs and tools SPU has or could develop to more effectively meet affordability needs of our diverse customers.

Strategy 1: Align Efforts to Community Need. Prioritize and align Customer Assistance efforts and resources towards meeting the needs of the community and improving impact.

-  Action 1A. Perform rigorous affordability analysis when affordability metrics are finalized.
-  Action 1B. Conduct Pilot Program to Prevent Service Shut-offs for UDP Customers.
-  Action 1C. Explore income eligibility alignment with other City of Seattle and King County assistance programs.
- Action 1D. Explore ways to support the affordability of side-sewer and other costly private infrastructure repair costs for homeowners.
-  Action 1E. Provide greater benefit to the customer in cases of unforeseen leaks.

Strategy 2: Increase access to and participation in existing affordability programs.

-  Action 2A. Identify legal and operational barriers and options for transferring SPU UDP credits at SCL to SPU to prevent a water shut-off action.
-  Action 2B. Launch Web-Based Application Form for UDP and EAP
-  Action 2C. Targeted enrollment and cross-enrollment efforts for UDP, including a self-certification pilot program.
-  Action 2D. Expand Access to Emergency Assistance

Partnership Opportunities

Why is this practice area important? Partnerships are a primary vehicle for centering SPU’s work on the needs of the communities the utility serves and for driving innovation, building capacity in the community and leveraging a broader set of benefits than what the Utility can provide on its own.

Strategy 1: Develop an SPU culture that nurtures innovation, extending existing and developing new partnerships across all branches to expand the value and reach of SPU investments for the communities we serve.

-  Action 1A. Create a community of practice to share and learn from each other and build capacity within SPU.
- Action 1B. Identify, prioritize, and remove organizational barriers to partnering.
- Action 1C. Focus partnerships on demonstrating qualitative and/or quantitative impacts and provide routine opportunity to capture and communicate their stories, value and outcomes.
-  Action 1D. Build partnership capacity in the communities SPU serves and identify and expand opportunities for partnerships with private and community organizations to improve health and environmental outcomes.

Regulatory Alignment

Why is this practice area important? SPU’s regulatory costs are significant and are ultimately paid for by customers. For example, SPU’s 2018-2023 Capital Improvement Program (CIP) is \$1.5 billion and \$0.7 billion (45%) is dedicated to regulatory compliance projects such as the Ship Canal Water Quality project.

Strategy 1: Regulatory Alignment. Align to Community Need and Impact. Prioritize and align SPU regulatory resources towards meeting the needs of the community, improving impact and “least cost” regulatory action.



Action 1A. Develop a unified federal and state legislative agenda that focuses efforts on proactively improving the environment, public health, social equity, and the local economy.

Action 1B. Develop a utility agenda for external engagement and influence that benefits the entire enterprise.

Action 1C. Develop risk and cost reduction measures for select areas of regulatory influence.

Strategy 2: Regulatory Alignment Move from Prescriptive to Performance. Move from prescriptive to performance-based regulations to reduce or avoid costs, share or reduce risk, and/or enhance community outcomes.



Action 2A. Seek to build performance based regulatory practices that adjust to meet the intended outcome into the combined sewer overflow (CSO) consent decree.

Action 2B. Take action on promising areas where SPU is regulated or the regulator that might be influenced to move from a prescriptive to a performance-based approach.



Action 2C. Collaborate with other city and local agencies to develop a list of regulations where there are potential efficiencies.

Budget and Financial Management

Why is this practice area important? Seattle Public Utilities is financially and operationally complex, spending over \$1 billion annually to deliver drinking water, sewage transport, stormwater conveyance and treatment and garbage and recycling services across Seattle and parts of the region. The size and complexity of the organization requires strong financial management to maintain the lowest cost of service while providing value to customers.

Strategy 1: Review SPU financial policies; provide options focused on risk, affordability, and investment.



Action 1A. Perform a comprehensive update of SPU’s financial policies.



Action 1B. Assess and make recommendations on reserves/emergency reserves.

Strategy 2: Revamp the SPU budget process to be driven by strategy, priority, and customer needs.



Action 2A. Advocate with the City Budget Office to pilot biennial budgeting with Seattle Public Utilities.



Action 2B. Pilot the development of a flexible rate model that integrates affordability criteria into rate development.

Action 2C. Develop a standard integrated enterprise approach to prioritization, improvements and efficiencies.

Strategy 3: Enhance financial and performance monitoring to better inform budgeting and financial planning.



Action 3A. Pilot quarterly enhanced financial monitoring to increase transparency, integrate risk, and improve financial planning.



Action 3B. Provide core/simple financial information on capital and operations and maintenance more frequently and broadly, making the data useful, accessible and actionable for managers.

Action 3C. Pilot the use of organizational capacity analysis and staffing forecast tools.

Practice Area: Capital Planning and Delivery

Increase the speed and efficiency of planning and delivering of capital improvement projects while maximizing community value.

What is this practice area about and why is it important?

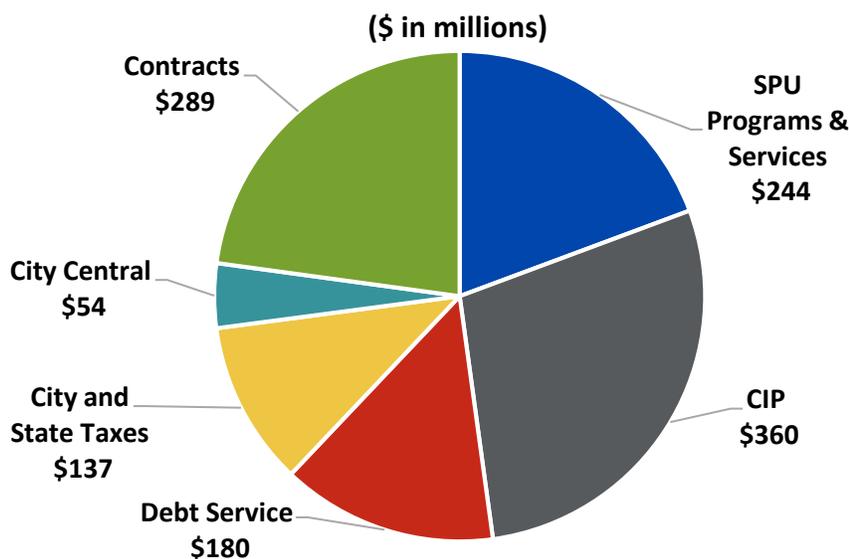
Seattle Public Utilities stewards a citywide and regional system of community capital assets which delivers essential drinking water, sewage transport, stormwater conveyance and treatment and garbage and recycling services. To support these services, SPU plans and delivers capital infrastructure projects to provide customers with reliable and enhanced delivery and protect human and environmental health.

Capital projects and financial policies account for approximately 25% of the total 2018-2023 SPU utility rate. Improvement and changes to the planning, speed and delivery of this large capital program can have significant effects on the affordability of SPU's rate to customers and the beneficial impact of SPU projects.

SPU engaged practitioners from across the utility to better understand how the utility might:

- improve the process of planning & delivering capital projects;
- better address capital project portfolio risk while minimizing costs;
- improve the transparency of capital project delivery for customers; and
- provide the most equitable benefits to communities and neighborhoods.

In 2019, 27% of annual spending for SPU was allocated to the CIP. Evaluating the area of capital delivery is an important part of finding ways to keep our services affordable to our ratepayers. Below is a chart showing SPU's adopted budget for 2019.



What is the current state of capital planning and delivery in SPU?

Improving upon a foundation of strong capital project management. SPU has a large capital portfolio and a structured system for planning, delivering, and managing capital assets. In general, each line of business (LOB) - Solid Waste, Drainage and Wastewater, and Water – manages its own capital assets and program. The Project Delivery and Engineering Branch (PDEB) is responsible for designing and constructing most new and replaced capital assets in collaboration with the LOBs. Each SPU LOB has a six-year capital improvement program informed by infrastructure assessment and analysis, regulatory requirements, and current and probable future needs, problems, risks and customer complaints.

Using strong management practices to deliver large capital projects. The Ship Canal Water Quality project will keep more than 75 million gallons of polluted stormwater and sewage out of the Lake Washington Ship Canal, Salmon Bay, and Lake Union on average each year. This \$570 million project is being completed in partnership with King County to decrease impacts on nearby communities and as part of a long-term comprehensive strategy to protect Seattle’s waterways and is responsive to the federal Clean Water Act and state regulations. The project is utilizing best management practices in program and project management including a schedule, cost, and risk management strategy that evaluates uncertainties and risks across the entire program. This results in a confidence-based schedule and cost estimate which is managed monthly. The management team emphasizes obtaining the best value in the project which has resulted in over \$77 million in scope and cost reductions by project staff.

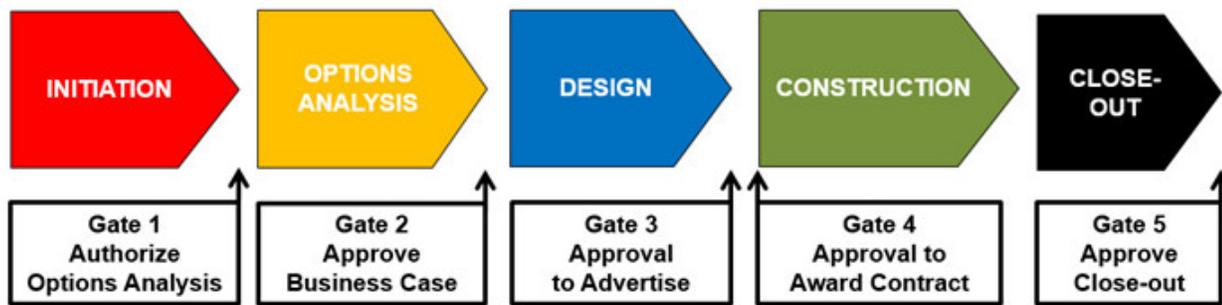
The approved 2018-2023 CIP for all LOBs totaled \$2 billion with the following breakout by year and LOB:

2018-2023 SBP CIP PROJECTIONS (\$ MILLIONS)

FUND	2018	2019	2020	2021	2022	2023	Grand Total
WATER	\$141.2	\$120.5	\$81.0	\$83.5	\$78.2	\$67.3	571.7
DWW	176.8	218.5	243.1	256.7	222.3	187.1	1,304.5
SW	9.0	20.2	24.7	7.7	4.0	3.8	69.4
TOTAL	\$327.0	\$359.2	\$348.8	\$347.9	\$304.5	\$258.2	\$1,945.6

Once the CIP is adopted, individual projects are then executed following the general workflow illustrated below, starting with the project Initiation Phase:

Stage Gate Process Flow for CIP Infrastructure Projects



The Stage Gate (SG) workflow shows a series of five distinct phases punctuated by five separate check points or gates. Each gate requires SPU executives to approve scope, schedule, and budget for capital projects with a life cycle cost over \$50,000. In 2009, SPU adopted the SG practice to ensure cost-effective, consistent, transparent, and customer orientation in executive decision-making through planning, selecting, and delivering capital projects.

During the initiation phase LOBs detail discrete problems to be solved and approximate schedule and budget. During the options analysis phase the LOBs develop and analyze options for solving those problems. The analysis includes triple bottom line economic analysis (social, environmental and financial considerations) as well as comparison of present value life cycle costs for each option. SPU began evaluating all projects using the triple bottom line in 2002. Selection and approval of the preferred project option is completed at Stage Gate 2.

After Stage Gate 2, projects are typically transitioned from the LOBs to PDEB. PDEB leads the design phase and develops formal plans and specifications necessary for public works contracting. PDEB also manages the construction and closeout phases of the project ending with final acceptance of the new or replaced asset by the LOB. PDEB is responsible for delivering between \$86 million to \$194 million in capital project spending annually or between what 40% to 54% of the overall capital budget (years 2016-2019).

There are several opportunities to enhance the efficiency of the capital planning and delivery process and focus on providing greater value to the customer. SPU's ultimate customer is always our rate payer. However, in the delivery of capital projects there are many intermediate customers. Adjusting our processes to provide value to these intermediate customers can help identify ways of eliminating waste (i.e. what those intermediate customers would not pay for) and streamline process.

As part of this initial assessment, the practice area work group identified a series of issues that create time delays in project delivery without adding significant value including:

- The consultant contracting and procurement process can be unnecessarily cumbersome. For example, signatures and contract review is required for small dollar limits.
- Decisions that should be made by the project team are often elevated to the highest levels of management, delaying project progress.
- Some projects proceed past initiation without appropriate definition or clarity in applicable policies often causing long pauses to obtain information and re-work based on new direction given.
- The project options analysis process that began in 2002 is time consuming, requires a lot of resources, and has not been re-evaluated since its inception.

Further, by reviewing current processes and identifying and better understanding what our internal customers value the work group also identified several overlapping opportunities for alignment and improvement including:

- Reducing the significant variation in the ways the LOBs plan for capital projects
- Spending and capital planning targets not being achieved which results in millions of dollars in idle capital each year
- Projects experiencing significant delays, sometimes for many years
- Substantive rework occurring in different phases and between stage gate checkpoints, resulting in delays and increased spending
- Data on project schedule and detailed cost performance not being readily available which limits the transparency and accountability of the capital planning and delivery process
- Uncertainty and risk aversion stalls movement or creates rework between gates
- Operation and maintenance needs are sometimes not well understood within capital planning and delivery which can create difficulty in managing assets once built
- Time and resources spent on options analysis is sometimes more than necessary to make the preferred option decision which is both costly and delays moving projects from planning to delivery.

STRATEGIES AND ACTIONS

Over the next five years, SPU plans to focus on improving the speed and efficiency of capital project planning and delivery while maximizing community value by:

- Improving and integrating capital planning across LOBs and other City departments.
- Reducing unnecessary project costs, accelerating project delivery, and providing multiple community benefits (such as improved water quality and passive recreation). Specifically, focus the stage gate process to provide customer value through streamlined and cost-effective decision making.
- Improving the transparency and accountability of project delivery through improved financial data and reporting, and responsive customer service.

Strategy 1: Capital Planning. Coordinate capital planning across LOBs and across other City departments to maximize potential for community value.

Strategy 1 Actions



Action 1A. Improve capital planning coordination by regularly convening SPU branches to identify planned capital improvements within common geographic locations.

Integrate project planning within those geographic areas to more efficiently meet multiple infrastructure and community needs. This action will allow the utility to be more strategic about finding opportunities to minimize construction disruption to the community, maximize the possibility of creating multiple community benefits (e.g.

improved drainage, stream quality, and passive recreation), and create efficiencies and cost savings by combining projects.



Action 1B. Integrate planning across the Drainage and Wastewater LOB to identify future investments that provide the greatest community and environmental benefits.

Finding the best investment solutions for Seattle’s drainage and wastewater systems begins by engaging with community. The Drainage and Wastewater integrated system plan will incorporate robust stakeholder engagement so that planning goals and objectives reflect community values and serve as a model and a guide to be incorporated into the capital planning of SPU’s other LOBs (see below).

Integrated planning for enhanced value. SPU is developing a 50-year plan for managing and improving Seattle’s drainage and wastewater systems while optimizing social and environmental benefits for the City. We are developing our plan through technical analysis, robust community engagement and an integrated approach to planning. By the end of 2022, SPU will have near- and long-term plans for drainage and wastewater programs, partnerships, and infrastructure investments that provide the greatest community value (e.g. improving environmental quality, public health, local economy, and social equity). This planning is part of building a better Seattle by providing drainage and wastewater services that are affordable, safe, green, and just in a climate uncertain future.



Action 1C. Develop Drainage and Wastewater capital planning guidance to consistently value multiple community and environmental benefits in CIP options analysis.

Once a set of problems have been identified in the integrated planning process, evaluation of solutions to solve that problem begins during the options analysis phase. This action will develop necessary guidance for how to maximize community benefits into the overall analysis of potential solutions. The Drainage and Wastewater LOB has begun this process and will lead the development of guidance to be used by the other SPU LOBs.

Action 1D. Apply guidance and lessons learned from the drainage and wastewater LOB work in B and C to all lines of business

Action 1E. Integrate standard portfolio project management practices into the development and monitoring of the CIP such as strategic prioritization across LOBs and portfolio performance and risk analysis.

While SPU has strong project management practices in place, the organization can further strengthen organizational alignment to business objectives, risk optimization, and resources allocation by treating the entire capital program as a series of capital project portfolios and adopting several industry-wide standards for portfolio management. This action will compare SPU practices at the utility against industry standards and recommend and implement changes to bring SPU into alignment with current best practices aimed at reducing overall portfolio risk, more efficient use of staffing capacity, and more timely delivery of capital projects.

Action 1F. Partner with SDOT to identify opportunities for improved coordination and delivery of capital projects.

SPU has the opportunity to better coordinate work with existing and upcoming SDOT capital projects. Currently, SPU does not consistently approach SDOT to plan for and integrate SDOT’s priorities and projects into SPU

projects that impact the right-of-way. This can provide efficiencies and minimize impacts to Seattle neighborhoods by finding joint opportunity projects.

Strategy 2: Capital Delivery. Improve capital project delivery by reducing project costs, accelerating project delivery, and providing multiple community benefits. Focus the stage gate process to provide customer value through streamlined and cost-effective decision making that requires the minimally optimal analysis to supports life cycle cost evaluation and strategic priorities.

Strategy 2 Actions



Action 2A. Streamline the project approval process to reduce decision cycle times and better align delegation of approval authority (decisions made at the right level).

Identifying the right level of approval authority will minimize time lost in moving projects forward. This action involves collaboratively working with executive management across SPU to evaluate current approval authority, eliminate and establish new rules, formalize new practices, and monitor and adjust for issues.



Action 2B. Incorporate reprioritization and elimination of stalled or lower priority projects into capital monitoring practices.

Projects can stall for many reasons, but these delays always result in higher costs and longer schedules. This action would set up check points and thresholds for projects to identify when stalls have occurred and a process for re-evaluating their place in the portfolio.



Action 2C. Improve the efficiency of capital project management by eliminating duplication of project management systems and activities.

SPU uses two formal enterprise project management software systems and a variety of informal solutions to meet project management needs. This results in process inefficiencies and the lack of consistent and readily available data for tracking and reporting on projects. This action is focused on consolidating existing information into one management system and expanding that system to add functionality currently being managed in an ad-hoc fashion.



Action 2D. Review and streamline capital project options analyses leading to stage gate 2 to reduce cycle times and project costs.

Reduce the number of projects using options analysis and focus analysis on the high risk, high complexity, politically/community sensitive, and high cost projects. The options analysis phase is used to identify and evaluate alternatives to solve the identified problem. SPU treats most projects the same during this process, which can lead to unnecessary cost and more time to complete analysis. This action will evaluate the current process to look for streamlining opportunities, recommend modifications to process and implement changes.



Action 2E. Revamp the Asset Management Committee (AMC) review process.

The AMC review process is intended to ensure that SPU has selected the right investment but often results in unnecessary delay, re-work, over-processing through redundant briefings, and over-analysis while not necessarily ensuring the right investment is being made. This action will evaluate the current process, look for streamlining opportunities, apply appropriate thresholds for which projects use this process, identify changes that will ensure that investment decisions are happening at the correct time and in an efficient manner and revisit dollar thresholds for what should constitute stage gate changes.



Action 2F. Transition to the use of portfolio reserves and/or pooled risk reserves to reduce the total dollar amount of management reserves.

Each capital project holds a percentage of the overall project budget in reserve to address contingencies for what is termed the “unknown-unknowns”. There is significant uncertainty in whether the money will be more than needed or not enough. Moving these reserve funds to a program portfolio level will lower the total dollars being held in reserve potentially resulting in lower budget needs. New processes to access the management reserve pool will provide greater oversight and accountability around reserve usage and align spending with the budget.



Action 2G. Reduce total cycle time in the procurement full solicitation process.

Consultant contracting is a significant and integrated part of the capital planning and delivery process and has multiple opportunities for reduction of cycle times which will help increase the speed of capital project delivery. Initial improvements will focus on development of scopes for solicitation and contract negotiations.

Action 2H. Better incorporate operational considerations into capital project development and review.

New and replaced infrastructure must meet the operational needs and maintainability requirements of our crews. Any additional funds and staffing resources associated with this infrastructure must also be identified and obtained. This action will identify gaps in the current practice and propose and implement solutions.

Strategy 3: Capital Reporting and Transparency. Improve the transparency and accountability of project delivery through improved financial data and reporting, and responsive customer service (LOBs as customers).

Strategy 3 Actions



Action 3A. Make available and use actionable data on a quarterly basis to identify project risks and issues early on so that adjustments can be made in a timely fashion.

Successful project management requires identification and active management of risks and mitigation strategies. This action will enhance SPU’s current enterprise portfolio project management system (PPM) to include modules that will house collected data and allow for proactive project management. The action also includes deployment of an earned value management system to improve project performance and forecasting and an integrated change control program to manage project scope changes.



Action 3B. Improve PPM (SPU's enterprise project management system) so that LOBs and management can easily find the information they need.

Currently, SPU holds project data in a variety of data management systems. There is no control process to gather and store this information in a single database nor is there a control process that compiles the data into reporting that leads to efficient and effective portfolio and project management. This action will enhance the current system of record (PPM) to allow for effective project management use, data storage, information control and project reporting.

Practice Area: Efficiency and Improvement

Develop a culture of continuous improvement to enhance value to our customers and improve efficiency and performance.

What is this practice area and why is it important?

The efficiency and improvement practice area focuses on how SPU, as an enterprise, identifies and sustains improvement to drive efficiency and provide increased value to rate payers. This practice area supports SPU's strategic business plan focus area of "Operational Excellence" by providing actionable steps for enhancing and building continuous improvement skills and practices across the utility.

Operational Excellence in SPU's 2018-2023 Strategic Business Plan. "We provide reliable, affordable, efficient, and high-quality services to all customers."

This practice area is essential to improving accountability and affordability. The strategies and actions of this practice area are intended to slow the growth in SPU's rate path by identifying and taking action on hundreds of small and large opportunities for improving service to the customer and reducing non-value-added activities and cost in SPU's work. Examples of non-value-added activities include "waste in process" such as having large inventories of parts, equipment downtime or being unavailable when teams are ready to work, and fixing the same problem twice. Focusing on work in this way not only improves efficiency and productivity; when done well, and in an engaged and respectful way with team members, it can improve employee engagement and job satisfaction.

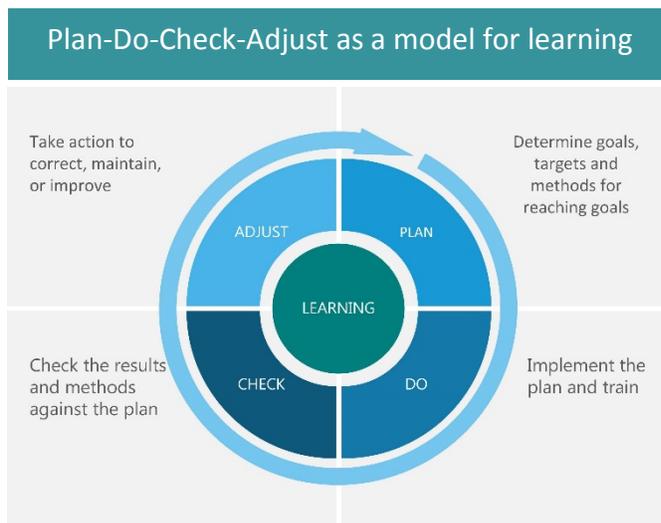
What is meant by continuous improvement?

Continuous improvement and lean involve simple systematic methods for focusing on what the customer values and eliminating from process what the customer does not value (and would not pay for). The core of the method, a plan-do-check-adjust (PDCA) improvement cycle, is based on the scientific method of proposing a change in a process, implementing the change, measuring the results, and taking appropriate action (see plan-do-check-adjust illustration).

The PDCA cycle is the foundation for continuous improvement. Continuous improvement can be focused on many small, medium, and large improvements ranging from reducing the number of steps it takes to fill out a report to streamlining an organization's process for capital planning and delivery.

Continuous improvement includes:

- Involving employees and external stakeholders in problem identification and problem-solving activities;



- Reducing the complexity of processes;
- Using performance metrics and simple visual controls to provide rapid feedback to improve real-time decision-making and problem-solving; and
- Approaching improvement activities using systems thinking.

What is the current state of continuous improvement in SPU?

SPU has engaged in a variety of continuous improvement efforts over the past decade. These process improvement efforts use varying methods including process mapping, special consultant studies, rapid improvement events, staffing analysis, and other techniques. The methods and skill in using these tools vary heavily by manager and line of business.

Workshop discussions and interviews on this topic revealed four themes:

1. process improvement is occurring in some lines of business;
2. while there is often initial improvement, improvement is sometimes not sustained due to turn over or conflicting priorities;

Reducing unnecessary inspections and costs through data analysis and lean methods. As part of the City’s Stormwater Permit, SPU’s Drainage and Wastewater (DWW) Branch was directed to perform inspections of privately-owned stormwater facilities every two years, which would have substantively increased program costs. Through process improvement and data review, DWW demonstrated that less frequent inspections would provide the intended environmental benefits and were able to avoid adding 2 FTE staff and reduced process time by 17%.

Improving service delivery through process improvement. SPU’s Water division received complaints from developers that the installation of water taps to new facilities was taking 3 months or more. By conducting a lean workshop and consistently checking and acting on process data, Water was able to reduce the time per inspection by 30%. While this shaved days and weeks off the process, additional work is needed to meet customer expectations.

3. data on process and costs is often difficult to gather or does not exist; and
4. there is a strong interest in process improvement, but the skills and support are not always available.

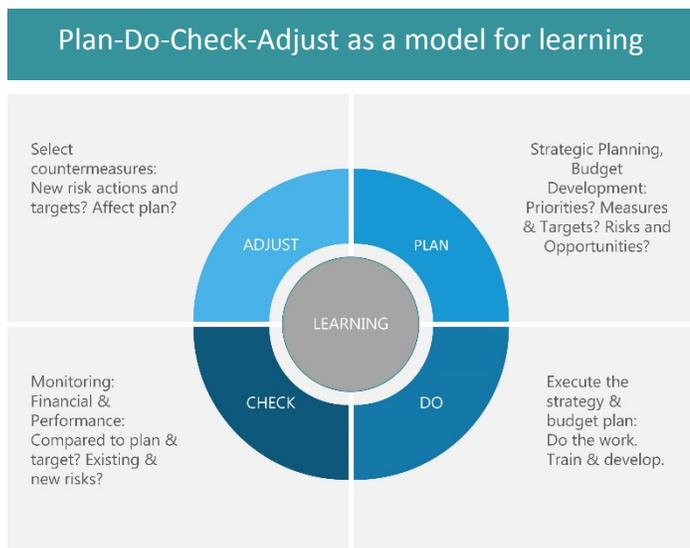
STRATEGIES AND ACTIONS

Strategy 1: Develop a culture of continuous improvement to enhance value to our customers and improve efficiency and performance.

Moving from “pockets of excellence” and improvement to “sustained operational excellence.”

SPU will build capability across the organization through applied problem solving and improvement, learn from that experience, and then, over time, apply the learning to more of the organization. At the same time, the utility will integrate the “plan-do-check-adjust” model into key management practices at SPU (see illustration). This

dual focus on both applied learning and integration with key management practices of the organization can provide a greater probability that progress and results from improvements are sustained over time through cycles of checking and adjusting and engaging greater numbers of employees in identifying and solving problems upstream at the source in more systemic ways. The essence of continuous improvement is to engage staff members responsible for the work in redesigning it, keeping in mind the need to provide the best possible product or service to the customer (external or internal).



Plan-do-check-adjust as a management system.

SPU has several key organization processes (e.g. budget development and financial & performance monitoring) which can be better woven together into an integrated system for learning. For example, during the development of the strategic business plan and budget, opportunities for improvement might be identified (plan) and executed (do). During monitoring, progress might be checked on (check) to see if the action is in progress and having the intended impact and if not, an alternative method might be put in place (adjust). The cycle would then start again and the strategy (plan) is adjusted to reflect what was learned.

Continuous improvement strategies and actions are embedded into multiple Accountability and Affordability practice areas, strategies and actions.

For example, the capital planning and delivery practice area (page 9) includes several actions to improve capital planning. Actions include streamlining the process and improving data to reduce project costs and delays and to provide multiple community benefits. Similarly, the budget and financial management practice area includes several strategies and actions (page 37) which will help improve SPU’s budget management by better integrating budget development, business planning, and financial monitoring. Actions include streamlining the budget process and improving financial monitoring transparency.

Strategy 1 Actions



Action 1A. Practice and Learn Lean Problem Solving. Pilot lean problem solving within the Drainage and Wastewater (DWW) Branch.

SPU has experience using improvement methods such as lean problem solving to address single issues or programs. Many of these improvements are typically not sustained for several reasons: they rely on an individual manager’s effort without the reinforcing management support, checking, and necessary coaching; efforts face many competing priorities; improvements focus on one portion of a process versus focus on root cause;

improvements are overly ambitious or don't start small and gain momentum; or staff are not ready or energized to do improvement work.

During the next two years, DWW will pilot lean problem-solving methods across the LOB. Learning from this pilot will be applied to other areas.



Action 1B. Identify and resource stalled or incomplete improvements.

Several improvement efforts have begun but some are currently stalled or not sustained due to resource, data or other constraints. SPU will give priority and focus to diagnosing, resuming, completing and learning from efforts underway. This might include efforts with water taps, stormwater inspections, and other work.



Action 1C. Plan for and sustain improvement across SPU. Integrate improvement planning and measurement into strategic and business planning.

Improvement and efficiency identification are ad hoc exercises typically performed within the budget process and in response to reduction or cost cutting targets. These budget process reductions are often not strategic and sometimes focus on cutting service or deferring maintenance which may not be sustainable or are symptoms not causes of the issue needing improvement.

During the development of the strategic business plan, SPU will develop a portfolio of potential areas for improvement focus such as areas with customer dissatisfaction (internal and external), long wait times, higher than anticipated cost, or other opportunities.

Action 1D. Systematically identify and take action on improvements across SPU.

A number of issues have been identified by work groups in several areas of SPU (e.g. poor customer experience, high cost, time delays) that will be prioritized, resourced, and acted on. SPU expects this work to reveal valuable and essential process/practice fixes and some areas where anticipated results are not sufficient to warrant investment in overhaul or other changes. Two examples of potential areas for improvement include:

- Performing effective utility system maintenance and upgrade work in the downtown core. SPU would address how best to plan and align crew work so that it is as efficient and effective as possible in a critical system area to limit failures and service calls.
- Organizing and scheduling infrastructure inspections touched by multiple city departments. SPU would identify overlap and skill crossover in those departments that could reduce duplicate work. SPU could also evaluate whether the inspection process could be streamlined to save valuable field time.

Practice Area: Customer Assistance

Focus on the affordability of SPU’s services, with a special (but not sole) focus on the needs of low-income customers, and the portfolio of assistance programs and tools that can be strategically deployed to meet the needs of diverse customers.

What is this practice area about and why is it important?

The Customer Assistance Practice Area is focused on the affordability of SPU’s services, with a special (but not sole) focus on the needs of low-income customers. This area targets programs and tools SPU has or could develop to more effectively meet affordability needs of our diverse customers.

Given that SPU utility rates are a financial burden for many households and that Seattle is becoming increasingly unaffordable for other reasons, the key policy question that drives the work in this practice area is: *What can SPU do to help customers struggling with affordability, without placing undue burden on all rate-payers?*

Seattle is not alone in examining and facing the challenges of utility affordability. At a national level, industry organizations such as the American Water Works Association (AWWA), the National Association of Clean Water Agencies (NACWA), and the Federal Environmental Protection Agency are engaged with utilities and other stakeholders to revamp how utility affordability is measured. Previous Federal guidance looked only at utility bills as a percent of median household income comparisons and did not take into account the ability of the poorest households to pay, nor did it account for local costs of living and growing income disparities.

While SPU is engaged in the national effort to revamp utility affordability metrics, there is no agreement on a precise way to measure whether a utility service is affordable.

The Customer Assistance Practice Area work group members came together to identify all existing or potential programs, policies, and tools that intersect with customers and have affordability implications, displayed in the “Customer Assistance Tool Kit” in Table 1:

Customer Assistance Toolkit (Table 1)

Financial	Informational	Technical/Operational
<ul style="list-style-type: none"> • Bill adjustments • Bill credits • Bill discount programs (UDP) • Bill waivers • Billing cycles • Conservation programs • Customer help network • Customer support donations 	<ul style="list-style-type: none"> • Access • Availability • Classes • Contact Centers • How To’s • Language Translations • Notifications • Response Programs 	<ul style="list-style-type: none"> • Claims • Dispute Resolution • Forms • Installation Assistance • Program Enrollments • Service Portals • Service Signups • Service Turn On/Turn Off

- Emergency assistance (EAP)
- Infrastructure insurance programs
- Loans
- Payment arrearage programs
- Payment plans
- Percentage of income payment plans (PIPPs)
- Rate design/structures
- Rate size
- Rebates
- Service level choices
- Severance policy
- Shut off policy
- Tiered assistance

Although the Utility Discount Program (UDP) is SPU’s largest customer assistance program, both in terms of cost (\$16 million cost to SPU in 2018) and in terms of customers served (24,000 SPU customers), it is one part of a much larger tool kit that provides different kinds of assistance for different customers with different needs.

For example, the UDP provides long-term assistance in the form of a 50% discount on all bills, while the Emergency Assistance Program (EAP) provides a one-time (or two-time, if there are children in the household) 50% discount to avoid a water shut-off action. The EAP served 884 customers last year, at a cost of \$225,500 to SPU. SPU policies and practices related to how water shut-offs are managed are also important tools in the larger affordability portfolio.

Select Affordability Tools: Impact and Cost for 2018 (Table 2)

Tool	Number of Customers Impacted	Cost to SPU
Utility Discount Program (UDP)	24,000	\$16 million
Emergency Assistance Program (EAP)	884	\$225,500
Leak adjustment policies	916	\$1,330,269
Water shut-off policies and practices for UDP customers	237 UDP customers experienced a water shut-off	N/A

Some of the other customer assistance related affordability efforts that SPU has completed in the last year or has underway include:

- Excluding Medicare Part B from the gross income eligibility requirements to help fixed-income seniors qualify for the UDP and EAP.
- Offered extended payment plans to customers experiencing financial hardship due to the partial federal government shut down that took place in late 2018.

- Improving the bill complaint/dispute process.
- Re-examining and updating customer account management and billing policies.

The Customer Assistance Practice Area work group also developed the following six principles to guide affordability efforts:

Six guiding principles:

1. Empower customers (and employees) by providing effective tools.
2. Proactively solve problems as early as possible.
3. Help particularly vulnerable households with long-term need.
4. Help people in short-term financial crisis.
5. Help customers avoid catastrophic bills.
6. Hold ourselves accountable through measurement and reporting.

SPU aims to look comprehensively across the different tools in its affordability toolbox, take a strategic approach, and make targeted improvements for better results.

STRATEGIES AND ACTIONS

Strategy 1: Align Efforts to Community Need. Prioritize and align Customer Assistance efforts and resources towards meeting the needs of the community and improving impact.

As Seattle and SPU’s customer base evolve and change, so do the needs relating to affordability. Rather than guesswork or reactionary piece-meal responses, SPU proposes to develop an organization-wide approach that is data-driven, comprehensive, and strategic, to provide the best possible outcomes with the least burden on ratepayers.

Strategy 1 Actions



Action 1A. Perform rigorous affordability analysis when affordability metrics are finalized.

SPU has contracted with consultants to develop affordability measures that make sense for the utility and the local community. The federal Environmental Protection Agency is revising its measures soon as well. When these measures are ready in the next year, SPU will apply them to inform longer-term objectives to strengthen customer assistance efforts.



Action 1B. Conduct Pilot Program to Prevent Service Shut-offs for UDP Customers.

SPU proposes to conduct a water shut-off prevention pilot program to proactively identify and reach out to low income UDP customers experiencing financial distress, using new modes of communication, messaging, and assistance. The goal is to reduce the UDP shut-off rate from the approximately 1% shut-off rate today, and to gather data on who is struggling to pay their utility bill even with the UDP discount.

SPU will use this pilot data to inform longer-term programmatic changes targeting income level(s) at which an additional, more deeply discounted tier might make sense for UDP assistance, as well as how to proactively identify customers experiencing financial difficulty, do effective outreach, and provide improved assistance to all customers.



Action 1C. Explore income eligibility alignment with other City of Seattle and King County assistance programs.

To align as much as possible with other city and county benefit and assistance programs, SPU will work with Seattle City Light (SCL) to analyze alternative income eligibility requirements and what income metric and/or thresholds might make sense for alignment of the UDP.

Action 1D. Explore ways to support the affordability of side-sewer and other costly private infrastructure repair costs for homeowners.

Side-sewer and water service leak repair costs can range from \$5,000 - \$50,000 and financing can be difficult to obtain for some homeowners. An estimated 30,000 Seattle homeowners could at some point be faced with these repair costs and may not have resources to finance such an expense.

SPU will explore low or zero-interest financing options and subsidized insurance for homeowners in need, to address high-cost infrastructure repair needs, potentially through the Office of Housing's Home Repair Program.



Action 1E. Provide greater benefit to the customer in cases of unforeseen leaks.

SPU is amending internal policies with respect to billing adjustments in cases where a leak occurs, to provide greater benefit to the customer.

Strategy 2: Increase access to and participation in existing affordability programs.

While looking to comprehensively assess affordability and the effectiveness of SPU’s portfolio to address those needs (Strategy 1), there is a need in the near term to increase access to those in need to the programs and resources already in place (Strategy 2).

Strategy 1 Actions



Action 2A. Identify legal and operational barriers and options for transferring SPU UDP credits at SCL to SPU to prevent a water shut-off action.

For a small subset of customers enrolled in the UDP who are renters in single-family homes, their UDP credit for SPU goes onto their Seattle City Light account because they do not have customer accounts with SPU directly. The UDP credits that accrue on the Seattle City Light account are not available to the customer for their SPU payments, even in the case of imminent water shut-off action.

SPU will work with SCL to obtain conclusive analysis of the legal barriers and options available for addressing this issue and pursue a fix with Seattle City Light if legally possible.

Case Study: Access to UDP Credits

“Chris” is a disabled UDP customer renting a house near University Village. In September 2017, Chris owed SPU \$533.69 for his total SPU bill and faced the threat of water shut-off.

Although he had \$870 in UDP credit with Seattle City Light, he struggled to get this transferred to cover his SPU balance because: 1) as a tenant, the account was not in his name so he could not have the SCL credit transferred to an SPU account, and 2) he could not obtain a refund check from SCL before the scheduled shut-off.

He had already used EAP earlier in the year, and so wasn’t eligible for it now. His water was shut-off on October 25, 2017.



Action 2B. Launch Web-based Application Form for UDP and EAP.

Customers who wish to apply to the UDP or EAP (SPU and SCL made recent improvements to allow the same application to qualify a household for both programs), the customer can obtain an application online, but cannot complete or submit the application online. It is a PDF document that must be printed and either scanned or sent as an attachment via email.

To increase access to these affordability programs, SCL and SPU are launching an online self-service portal for utility customers, which will include a web-based UDP and emergency assistance application form. This is anticipated to go live in the third quarter of 2020.



Action 2C. Targeted enrollment and cross-enrollment efforts for UDP.

The steering committee that oversees UDP administration will pursue cross-enrollment opportunities with the following means-tested programs. This action may provide enrollment increases and administrative efficiencies similar to those gained through the successful Seattle Housing Authority (SHA) cross-enrollment partnership:

- National School Lunch Program
- Women, Infants and Children (WIC)
- Medicaid
- Tribal TANF
- Supplemental Security Income (SSI)
- Bureau of Indian Affairs General Assistance

The steering committee is also developing a multi-year, strategic outreach and marketing plan for the UDP to increase enrollment. The plan will be completed this summer.

In addition, SCL and SPU will conduct a UDP Self-Certification Pilot Program to boost enrollment in low-income areas of the city, as well as test the effectiveness of new marketing strategies, a new fast-track application form, and new auditing techniques.

Case Study: UDP Cross-Enrollment

In 2015, SPU worked with Seattle City Light to remove a longstanding barrier in the Seattle Municipal Code that prevented customers living in facilities operated by Seattle Housing Authority from participating in the UDP. By removing that barrier and establishing cross-enrollment with SHA, the UDP enrolled 7000 new households in 2016.



Action 2D. Expanding Access to Emergency Assistance.

SPU will expand access to emergency assistance in three important ways, by:

1. increasing the income eligibility ceiling from 70% to 80% of State Median Income to help households experiencing short-term financial crisis.
2. proactively reaching out to UDP customers facing a potential water-shut off with information about the Emergency Assistance Program;
3. pursuing changes to the Seattle Municipal Code to allow application of emergency assistance up to 100% of the customer's bill (up from the 50% limit in place today); and
4. exploring the creation of a donation-based emergency assistance fund, akin to Seattle City Light's "Project Share."

Practice Area: Partnership Opportunities

Improve SPU's ability to partner with organizations, institutions, and companies to leverage broader benefits, reduce costs, share risks, and improve outcomes for the communities that we serve.

What is this practice area about and why is it important?

Partnerships are the network of suppliers, vendors, firms, funders, collaborators, advocates, service providers, and peer organizations that make a business model work and provide value to the customer. SPU engages in three types of partnerships:

1. traditional buyer and supplier relationships;
2. strategic alliances where organizations bring different capabilities together to deliver a product or serve a customer; and
3. joint ventures where organizations enter a new business to provide a different service or asset for a new customer segment.

SPU engages in hundreds of partnerships worth hundreds of millions of dollars (see examples below).

Partnership Examples Across Lines of Business

- Water treatment plant contracts
- Relationships with ethnically based community organizations to meet service goals
- Solid waste contracts
- Wholesale water sales to other utilities
- Shared customer call center with City Light
- Ship Canal project with King County
- Agreements with sewer districts for sewage treatment
- Recycling and conservation partnerships with our customers
- Relationships with business coalitions and City departments to build WMBE capacity and usage
- Co-implementation of water conservation projects at the Ballard Locks with U.S. Army Corps of Engineers
- Foundation and philanthropy relationships to amplify, align and supplement health equity, environmental justice, and climate adaptation
- Joint property purchase and land swaps with other agencies such as Seattle Parks and Recreation and the Army Corp of Engineers to conserve and protect parcels

The Utility enters into partnerships to reduce costs, share risks, and to gain a resource or the ability to engage in an activity that is outside of existing capabilities. Most SPU partnerships provide multiple benefits to SPU and to the partner organizations and communities. Often benefits are quantifiable in financial and performance output

terms such as reduced cost. Many benefits are also qualitative, such as better relationships with stakeholders or increased community organization capacity to engage.

Partnerships are a primary vehicle for centering SPU's work on the needs of the communities the utility serves and for driving innovation, building capacity in the community and leveraging a broader set of benefits than what the Utility can provide on its own.

Partnerships are also critical to delivering SPU's core services. SPU is not able to meet operational goals and regulatory requirements alone, especially in the face of growing environmental threats and affordability concerns. During the development of the "Building Partnership Opportunities" strategies and actions, SPU identified a set of principles to guide its continued work (see "Five Partnership Principles").

The following are specific highlights of SPU's partnership principles in action along with the value and variation of partnership efforts in SPU:

SPU's Five Partnership Principles:

1. To have a good partner, be a good partner and help create mutual purpose.
2. Get out of transactional mindset, move into a transformational mindset.
3. Balance risk with the potential for new or expanded opportunities.
4. Focus on long-term relationships and building trust.
5. Build capacity in the community and with the organization.

Leveraging supplier/provider partnerships to improve service and customer value. SPU's Solid Waste division negotiated new contracts worth approximately \$1 billion over 10 years for solid waste services. The new contracts were negotiated to cost the utility \$25 million less than what was assumed in adopted rates while continuing to deliver reliable services, positive environmental outcomes, and enhanced services. These lower than anticipated costs were carefully negotiated with the vendor to also ensure the long-term viability of the contractor and risk sharing. This example illustrates principle 1 and 5.

Engaging in a strategic alliance with a private developer for clean water. A private developer approached SPU with a proposal to voluntarily divert dirty stormwater runoff from WSDOT's Aurora bridge into a park like green space constructed by the developer in the City right-of-way to improve water quality in Lake Union. SPU entered into an agreement with the developer and the project will effectively divert and clean 160,000 gallons of stormwater per year. This agreement enabled improved water quality in the region beyond what can be done by Agencies and created a community green space asset for the future. Partnerships to add bioretention at the time of redevelopment is far less costly than if the entities did the work on their own. It also spurred SPU to develop a better internal system to establish similar partnerships in the future. This example illustrates all five principles.

Entering into a joint venture to bring more partners to the table. In 2018, SPU partnered with Mary's Place, a nonprofit organization serving families experiencing homelessness, to explore new opportunities around food rescue and improving community health. Approximately 95,000 tons of food are wasted each year locally at a cost to SPU customers to compost or landfill. At the same time, more than 250,000 King County residents are experiencing food insecurity. Working together, the Food Rescue Innovation Lab was convened, which brought together stakeholders from a range of agencies, departments, and sectors to better understand the issue, surface new opportunities for collaboration, and create buy-in for long term engagement and solutions. By engaging with a community connected and passionate partner, SPU is now partnering with many private, community, and philanthropic organizations to meet the dual objective of reducing the amount of high-quality food going into the waste stream and feeding residents in need. This example illustrates principles 1, 3, 4, and 5.

Creating strategic alliances and community trust with local non-profits. Community Connections is an SPU program which fosters long-term contracted partnerships with non-profit community-based agencies, with a goal to improve the quality of life for people of color, immigrant, and low-income communities through transformative

engagement and education on utility functions and services. The partnership explicitly focuses on overcoming a lack of trust through relationship building and is an example of using targeted approaches to reach the universal goal of engaging all SPU customers. This example illustrates all five principles.

STRATEGIES AND ACTIONS

Strategy 1: Develop an SPU culture that nurtures innovation, extending existing and developing new partnerships across all branches to expand the value and reach of SPU investments for the communities we serve.

This strategy builds on the collective experience of SPU to better leverage internal resources, grow a community of practice and organizational learning, and sustain and expand the number of partnerships. SPU's partnership efforts typically benefit individual programs or business areas, but staff expertise, data, and lessons learned from past efforts are not widely leveraged across the utility. As SPU's innovation culture continues to mature, the partnership strategy will evolve into an enterprise-wide, cross-functional approach where the Utility collaborates across the organization and with the community to improve affordable and accountable outcomes.

In addition, partnerships serve business purposes to reduce costs, spread risk, and improve service. Consistent with the accountability and affordability framework, partnerships should strive to develop and use evidence, and demonstrate results to ensure that both SPU and the communities served are benefiting from them.

SPU Employee Perspectives on the Culture of Partnership

"The opportunity to leverage what we do and what others do to create a greater collective whole is inspiring."

"We work together but we don't always view our relationships as partnerships. If you look at it as a partnership, it may create more value because you approach it differently."

Strategy 1 Actions



Action 1A. Create a community of practice to share and learn from each other and build capacity within SPU.

People come to work in the public sector with fresh ideas and energy to improve upon what's already been delivered. We are living through rapid technological advances and unprecedented connectivity, challenging us to take advantage of all there is to offer in a reasonable and affordable manner.

SPU can learn to better adapt to shifting demands and can provide innovative approaches. Creating a community of practice is one approach for strengthening and encouraging a culture of innovation within the utility by creating a sponsored forum for sharing knowledge and learning led by experts and practitioners in SPU.

Action 1B. Identify, prioritize, and remove organizational barriers to partnering.

Partnerships can create value but sometimes City and SPU processes are barriers to moving forward. For example, our contracting processes are not nimble and designed for transactional partnerships (supplier/provider) and less focused on strategic alliances or joint ventures which can provide broad benefits to the community. This can result in lost time and missed opportunities to build trust and better serve our

customers and community, and help meet utility goals while sharing the costs, risks, and rewards of sustaining a healthy environment.

Action 1C. Focus partnerships on demonstrating qualitative and/or quantitative impacts and provide routine opportunity to capture and communicate their stories, value and outcomes.

SPU's work requires an ability to engage and inform officials and the public about how rate payer dollars are spent, the benefits, and what was achieved. For SPU, there exists commonplace reporting on the performance of utility assets and achievement of broad utility goals. The stories of success reached through partnerships is often under-reported and may be lacking metrics in similar fashion to how performance is measured in other areas of the utility.



Action 1D. Build partnership capacity in the communities SPU serves and identify and expand opportunities for partnerships with private and community organizations to improve health and environmental outcomes.

SPU would like to build a reputation as “open for innovation” by the broader community, with clear private sector and community organization partnership opportunities. While SPU has organizational experience and capability in building partnerships, it does not have an enterprise-wide approach to marketing the potential for broader partnerships. SPU will build from successful experience through efforts such as WMBE, Green Stormwater Infrastructure and other the examples illustrated in this document to build an outreach and marketing plan based on strategic priorities and targeted outcomes.

For example, planning is currently underway to expand and build partnerships for Green Stormwater through co-location opportunities with other City Departments and potential community based organizations or developer partnerships to encourage greater private investment in water quality and other community goals.

Practice Area: Regulatory Alignment

Reduce the cost and risk of meeting regulatory demands while ensuring public health and safety, environmental protection, a vibrant local economy and social equity outcomes. Focusing on regulation in this way is expected to improve affordability for our customers by eliminating unnecessary process, selecting viable lower cost alternatives for the same or greater benefit, and moving from prescriptive requirements to performance-based approaches.

What is this practice area about and why is it important?

Seattle Public Utilities is both *regulated* by other governmental agencies and is a *regulator* of local governments, companies and individuals. Regulation of water, wastewater, drainage, and solid waste is essential to SPU's core mission of protecting public health and the natural environment. At the same time, regulatory activities must be done through an equity lens to protect the communities served while being careful to minimize negative economic impact that regulations might have.

SPU has a long record of regulatory compliance as well as innovative practices influencing regulation for more locally, sustainable health and environmental outcomes and reduced costs. Far from avoiding regulation, SPU has advocated for practices that move upstream to protect and restore ecosystem functions and proactively reduce regulatory response through voluntary compliance across many areas including increasing recycling rates, conserving water, and natural systems approaches to stormwater runoff in neighborhoods.

This regulatory alignment strategy builds on the experience and practices within SPU to better leverage resources, institutionalize enterprise learning, and improve the use of evidence to influence regulation and improve outcomes. By emphasizing a more adaptive approach, this strategy also better prepares SPU for the future impacts of climate change which will require greater regulatory flexibility to respond to a shifting and increasingly uncertain future. During the development of the Accountability and Affordability strategy, SPU identified a set of principles to guide continued work (see "Seven Regulatory Principles").

SPU's Seven Regulatory Principles:

1. Be Adaptive and shift from "regulate and forget" to a responsive, data driven, iterative approach.
2. Pilot and test new approaches on limited scale and learn from them
3. Move upstream and influence the issue early
4. Constantly reassess for the intended impact
5. Focus on outcomes over process
6. Engage allies to improve outcomes
7. Prioritize and focus on a few key areas

Laws and regulations impact SPU’s lines of business to different degrees. For example, the federal Clean Water Act primarily impacts the Drainage and Wastewater line of business (LOB) but to a lesser degree the Water LOB and Solid Waste LOB. Some laws and regulations impact only one LOB, such as the state Water Code regarding water rights. Others impact all SPU lines of business, such as the federal Fair Labor Standards Act. Attachment B provides examples of laws and regulations that impact SPU.

SPU’s regulatory costs are significant and are ultimately paid for by customers. For example, SPU’s 2018-2023 Capital Improvement Program (CIP) is \$1.5 billion and \$0.7 billion (45%) is dedicated to regulatory compliance projects such as the Ship Canal Water Quality project. SPU’s regulatory strategy seeks to improve outcomes in ways that also improve affordability and accountability for the customer.

STRATEGIES AND ACTIONS

Strategy 1: Align to Community Need and Impact. Prioritize and align SPU regulatory resources towards meeting the needs of the community, improving impact and “least cost” regulatory action.

As SPU continues to mature, its regulatory strategy will evolve into an enterprise wide, cross functional approach with collaboration across SPU, other City departments, jurisdictions, and regulators to improve outcomes for the community. Instead of just responding to emergent opportunities, SPU will work to develop an organization-wide approach that is coordinated and proactive, and intentional about providing the best possible outcomes with the least burden on ratepayers.

Strategy 1 Actions

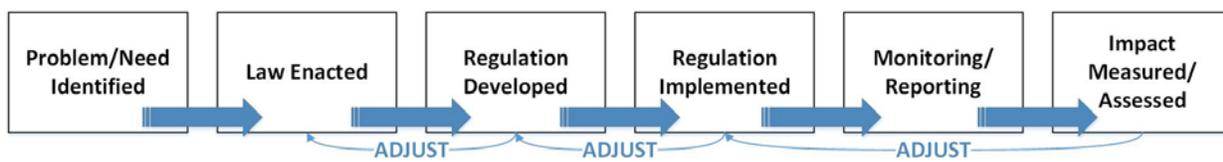


Action 1A. Develop a unified federal and state legislative agenda that focuses efforts on proactively improving the environment, public health, social equity, and the local economy.

Historically, SPU has used an ad hoc approach to state and federal legislative agendas, focusing on issues that arise out of LOB-identified legislative priorities or are responsive to external factors. This has sometimes resulted in focusing on issues that may not have the highest priority need for SPU, nor have they been fully grounded in improving the environment, public health, social equity and the local economy (“the four community outcomes”). Finally, it also means we miss proactive opportunities to make big operational improvements.

SPU will develop an agenda that focuses on legislation and existing regulation. It is essential to be proactive in supporting lawmakers and regulators in making decisions informed by good risk- and cost-data and a sound business case. This includes regulatory solutions that are more holistic and connected as opposed to siloed in approach.

The opportunity to improve regulation may arise anywhere in the regulatory lifecycle shown below, from the development of the original legislation to the measurement and assessment stage.



The objective for creating a common legislative agenda is seek out cross-LOB and enterprise-wide opportunities that have the greatest impact on SPU's costs and multiple benefits to the community. For example, laws and regulations that affect water quantity and quality have implications for all lines of business and can benefit the environment, public health and safety. Similarly, laws and regulations for public works contracting also impact the enterprise overall while helping the local economy and social equity. In some instances, the scope of proposed legislation can be expanded to create multiple benefits. By being strategic about its legislative priorities, SPU can focus its resources on proposals that would best serve the community.

Action 1B. Develop a utility agenda for external engagement and influence that benefits the entire enterprise.

SPU successfully responds to emergent opportunities to work with regulators, industries and the community to improve regulation. SPU is involved with national and local organizations that advocate for changes to regulations, such as the American Water Works Association, National Association of Clean Water Agencies, and the Solid Waste Association of North America.

However, these successes are often reactive rather than proactive, which limits the spread of ideas to individuals working on that problem. Other people in SPU, along with regulatory agencies and partner organizations, do not benefit from the improvement and learning. This can be a missed opportunity, because concerns in one LOB are often shared across other LOBs with potential multiple benefits for the community.

For example, PCB toxins are industrial chemicals which can show up in the solid waste stream, and then from there to wastewater and surface water. Although those are different LOBs, by coordinating people and resources systematically, SPU can jointly identify the problem and put resources where they will be most effective: eliminating PCBs from solid waste before they lead to harder and more costly work of removing them from streams and waterways.

Addressing waste and contamination at the source.

SPU's Solid Waste Division collaborates extensively with partners to extend manufacturer's responsibility for disposal of their products. This work has resulted in legislation and actions over the past 20 years that have diverted hundreds of thousands of tons of materials from the landfill. By working in partnership with the Northwest Product Stewardship Council, hazardous chemicals found in electronics, light bulbs, and pharmaceuticals have been repurposed for a second life or disposed of in ways that won't harm the environment.

Action 1C. Develop risk and cost reduction measures for select areas of regulatory influence.

While SPU works to affect and better manage regulation, we often do not have a baseline for measuring the effectiveness of those activities or for reducing or avoiding costs and impacting the intended outcome. Having credible baseline information as well as information demonstrating the impacts of emerging issues such as climate change increases the probability that we can advocate for more adaptive and effective interventions with regulators. In addition, targeted risk and cost reductions are not typically formally considered when assessing the potential benefits of changing or influencing regulations.

SPU has some success in influencing regulation when we provide regulators analysis of the efficacy of the regulation and, in some cases, modifications of process that can make the regulation more effective.

An example of this is SPU’s handling of the Stormwater NPDES Permit (see Case Study: Reducing the administrative burden of managing the stormwater permit).

Strategy 2: Move from Prescriptive to Performance. Move from prescriptive to performance-based regulations to reduce or avoid costs, share or reduce risk, and/or enhance community outcomes.

The landscape of regulation is large and complex, and because important community outcomes such as public health and safety, environmental protection, economic vitality, and social justice are at stake, it is important to be

Reducing the administrative burden of managing the stormwater permit.

SPU gives the National Pollutant Discharge Elimination System (NPDES) permit to people with private stormwater drains. As part of the permit, SPU does a manual inspection every year. Based on actual inspection and maintenance data, SPU has been able to demonstrate that the permit requirement of inspecting privately owned stormwater facilities every year is unnecessarily prescriptive and does not result in increased maintenance or environmental benefit, but instead uses inspector resources that could be used for greater benefit in other programs.

thoughtful and purposeful about this work. By changing both our mindset and our internal approaches, we can more easily identify and advocate for regulations that provide a better value with improved outcomes to residents.

Strategy 2 Actions



Action 2A. Seek to build performance based regulatory practices that adjust to meet the intended outcome into the combined sewer overflow (CSO) consent decree.

In July 2013, Seattle entered into a Consent Decree with the Environmental Protection Agency, Department of Justice, and the Washington State Department of Ecology to reduce sewer overflows (SSOs) and combined sewer overflows (CSOs). The cost of addressing the consent decree was estimated at \$600M in 2013. In the last five years, the capital costs of meeting Consent Decree requirements have increased significantly due to changing rainfall patterns, increasing costs of capital projects and overall growth in the City market conditions. However, the existing prescriptive requirements for CSOs limit how SPU can respond to these changes in an effective, cost-effective manner. Shifting to a more adaptive approach for CSOs through a Consent Decree modification would direct future capital investment towards the greatest public health and environmental outcomes, while providing the flexibility needed to partner with King County on more cost-effective projects and manage climate and affordability challenges.

Action 2B. Take action on promising areas where SPU is regulated or the regulator that might be influenced to move from a prescriptive to a performance-based approach.

Sometimes a prescriptive process or alternative is expensive and not as effective as enforcing performance standards. In other cases, the prescriptive measure might be more appropriate.

Prescriptive approaches to regulation describe how or what must be done such as “take water samples” or “report quarterly” but may not measure the intended impact or outcome or may have little evidence that they

impact the outcome they are trying to achieve such as no toxins in streams. Compliance has a cost but may not have an offsetting benefit. In contrast, a performance-based approach starts with the desired outcome and measures either the outcome (e.g. healthy salmon habitats) or conditions related to the outcomes (e.g. increasing salmon populations). Opportunities exist to shift more regulations to a performance-based approach.

The table below contrasts the difference between prescriptive approaches compared to regulation that uses a performance-based approach.

Cost effective ways to ensure “mountain fresh” drinking water.

SPU’s water division worked creatively with the Environmental Protection Agency, local environmental organizations, and local tribes to keep drinking water safe, avoid unnecessary costs, and protect the environment. By focusing on data and intended impact, SPU developed an acceptable alternative to the EPA’s prescribed approach to filter drinking water. This option helped avoid building a costly large capital facility and instead put resources into protecting natural areas.

Prescriptive vs. Performance-based Approaches to Regulation

Prescriptive	Performance
<ul style="list-style-type: none"> • Prescriptive-based regulation • Mandated technology, equipment, action/tasks • Specified behaviors or methods to comply • Demand specific solutions be implemented • Focus on inputs and activity 	<ul style="list-style-type: none"> • Impact-based regulation • Set results-oriented goals • Establish objectives or standards • Encourage flexibility and innovation • Focus on outputs and outcomes

SPU will be looking at all regulation through this lens: both its own proposed regulation of others and those proposed that would apply to SPU. An important part of this process is ensuring there is good data to inform these choices.



Action 2C. Collaborate with other city and local agencies to develop a list of regulations where there are potential efficiencies.

SPU directly regulates in a variety of areas, sometimes in concert with other City departments. Some of these regulations and processes have never been reviewed for process or outcome effectiveness and efficiency. In addition, layering separate regulations creates unnecessary complexity for City departments and parties that need to comply.

In recent years, SPU and other City and partner agencies have worked for better coordination but these early efforts might benefit from clearer understanding of the outcome-based needs for each entity and then a more focused effort on improving affordability and outcome.

For example, when a developer is building a new building, a permit and installation is required to access utility services from utility mainlines to the building. Permitting activity is done in conjunction with Seattle Department of Construction and Inspection (SDCI) and Seattle Department of Transportation (SDOT) and consists of permitting and installation of utility service lines and SDOT permits to work in the right of way and patch the pavement. This process takes many months and involves multiple inspections. While some amount of time is necessary for

permitting, the total permitting time can be reduced which would benefit developers without impacting utility integrity and the street.

More coordination within SPU and with other partners, especially City departments, will help add value to projects, reduce duplication of effort or at cross purposes, while improving outcomes and avoiding unnecessary costs.

Modify Midway Landfill Consent Decree. This modification would allow waste removal for I-5 expansion and Sound Transit south Link and allow development of the site as a Sound Transit maintenance facility.

The freeway expansion is to meet obligations under a Franchise Permit and the development of the site for rail and potential maintenance facility is a great opportunity for the region and may save SPU, WSDOT and Sound Transit significant capital cost.

Develop policy updates for Stormwater Code. These modifications would allow for public private partnerships to treat stormwater from City Right of Way on private property and vice versa.

Current policy and code restrict this type of arrangement, leading to inefficiencies and lost opportunities to leverage multiple funding sources to meet regulatory requirements and provide facilities that meet a community centered approach.

Practice Area: Budgeting and Financial Management

Streamline and integrate budget and financial planning practices and align investments with the long-range strategic goals of SPU and the community.

What is this practice area about and why is it important?

Seattle Public Utilities is financially and operationally complex, spending over \$1 billion annually to deliver drinking water, sewage transport, stormwater conveyance and treatment and garbage and recycling services across Seattle and parts of the region. The size and complexity of the organization requires strong financial management to maintain the lowest cost of service while providing value to customers.

SPU's six-year rate path, adopted in the 2018-2023 Strategic Business Plan, forecasts continually increasing rates for our customers. The rate path is expected to grow higher than the rate of inflation during the Plan's six-year window, putting pressure on customers' ability to pay for critical services. This trend mimics a trend over the past 30 years where SPU rates have an average growth at double the rate of inflation. Increases in costs are driven by a variety of factors including aging infrastructure, growing complexity in the regulatory environment, and increases in service demand. The current rate path trajectory and affordability challenges in the local economy create an opportunity to examine financial practices throughout the organization to ensure SPU is maximizing opportunities to lower costs to customers.

Through this effort, SPU engaged practitioners from across the utility to better understand how the utility might better:

- balance short and long-term financial health,
- prioritize and make financial decisions,
- control costs and manage risks, and
- align the budget with strategic objectives.

What is the current state of financial management and budgeting in SPU?

SPU is financially healthy. SPU's current and projected financial health across the Water, Drainage and Wastewater and Solid Waste funds is evidenced by high bond ratings across all funds. SPU has a history of maintaining high bond ratings that allow SPU access to lower the cost of capital project financing which, in turn, lowers long-term costs for rate payers. Additionally, SPU is on the higher end of bond ratings compared to cities with similar systems. *Attachment A* includes a comparison of SPU's bond ratings with similar systems.

There are also several opportunities to enhance the efficiency and effectiveness of financial management within SPU including:

SPU's financial policies need revision to align with current risks and needs. SPU's financial policies, adopted by Council, guide rate setting, financial decision making, and are designed to ensure the long-term and short-term health of each utility fund. Financial policies are also metrics that bond rating agencies use to compare SPU to peer agencies and validate that the Utility is consistently achieving the required reserve levels. Over the past few

years, rating agency criteria and the financial needs of the organization have changed; however, all three funds' financial policies have not undergone a formal review since 2012.

Streamlining and realigning the budget process. SPU's budget development, rate setting, and long-term strategic planning has become much more complex and time consuming over the past five years and not always providing the intended value.

- SPU is spending a great deal of time and resources in the various expenditure updates needed to create an annual budget, rate studies and the Strategic Business Plan updates. The drivers of the various efforts are not well understood across and between levels of leadership.
- Short and long-term risks at the fund level are sometimes not well understood or transparent to managers.
- SPU's approach to prioritization and efficiencies is not consistently applied across the enterprise or only in response to external requests for budget reductions.

Financial monitoring is challenging and not well understood across the organization. SPU has struggled over the past year to conduct financial monitoring consistently, simply, and in a timely manner due, in part, to implementation of the new PeopleSoft system. In addition, spending is consistently under budget, sometimes significantly.

- Financial information has become more complex with the new PeopleSoft implementation.
- Monthly monitoring needs to be simplified for greater understanding as well as potentially enhanced by adding or removing information.
- The tools and process for financial monitoring are not consistently available across the utility.
- Quarterly fund reporting is currently at the Executive leadership level, but not broader leadership levels. In addition, the reporting and monitoring is missing important information on fund risks and emerging issues.

STRATEGIES AND ACTIONS

Over the next five years, SPU will streamline and integrate budget planning, monitoring, and financial policies by focusing on:

- Reassessing and modernizing SPU financial policies and reserves;
- Streamlining and aligning the budget process; and
- Improving accountability through enhanced financial monitoring.

Strategy 1: Review SPU financial policies; provide options focused on risk, affordability, and investment.

Strategy 1 Actions



Action 1A. Perform a comprehensive update of SPU's financial policies.

SPU's financial management policies were last reviewed in 2012. Over the past seven years a variety of issues have been identified that are not explicitly considered in these policies including managing rate and reserve levels for economic downturns or during significant natural disasters such as earthquakes. In addition, rating agencies have adjusted criteria that are explicitly considered in SPU's bond ratings, but the utility's adopted financial policies may not reflect the changes. These changes, coupled with an interest in managing risk at an enterprise level and a focus on creating long-term affordability, provide an opportunity for SPU to assess current financial policies with long-term planning, policy objectives, and rating agency criteria. This analysis will include a review of reserve classifications, categories, and cash balances compared to industry standards and best practices.



Action 1B. Assess and make recommendations on reserves/emergency reserves.

Based on Action A, SPU will conduct a financial and alternative analysis for implementing financial policy and reserve changes. This alternative analysis will assess the financial impact of implementing changes on rate payers in both the short and long-term.

Strategy 2: Revamp the SPU budget process to be driven by strategy, priority, and customer needs.

Strategy 2 Actions



Action 2A. Advocate with the City Budget Office to pilot biennial budgeting with Seattle Public Utilities.

The City's biennial budget process remains largely an annual exercise. The annual budget process is very resource intense and does not currently allow for enough time for strategic prioritization and planning. Moving to a biennial process can allow for improvements that enhance accountability, efficiency and create space for deeper long-term planning, analysis, and prioritization in the off years.

Whether SPU formally moves to a biennial budget process or not, there are actionable opportunities to reduce time spent on the technical aspects of budget production including reducing the frequency of spending plan updates or limiting updates to only large projects or areas of major change. SPU also has the flexibility to internally design the process of mid-biennial updates where changes to the budget are severely limited and done on an exception basis. Changes in process should be done in tandem with improvements to financial monitoring which are expected to increase accountability and accuracy of projections. As a part of this action, SPU will reassess the process and timing of the three-year cycle of providing rate study updates.



Action 2B. Pilot the development of a flexible rate model that integrates affordability criteria into rate development.

The Drainage and Wastewater division (DWW) is developing a flexible rate model incorporating new methods for assessing affordability for both the utility and customers. The tool and methods are expected to help SPU quickly

assess alternative long-term rate and investment scenarios. The model will provide a 30-year rate projection incorporating SPU financial policies, sensitivity analysis, and multiple program and capital funding scenarios. Organizational learning from the pilot will be incorporated into rate models for the Water and Solid Waste rate models.

Action 2C. Develop a standard integrated enterprise approach to prioritization, improvements and efficiencies. SPU will develop explicit guidance for efficiencies and improvements and incorporate that guidance into the strategic business planning and budget development process. This action is intended to move SPU away from a reactionary budget cutting approach to a more long-term systemic and measured approach aligned with recommendations on continuous improvement in the Efficiencies and Improvement practice area.

Strategy 3: Enhance financial and performance monitoring to better inform budgeting and financial planning.

Strategy 3 Actions



Action 3A. Pilot quarterly enhanced financial monitoring to increase transparency, integrate risk, and improve financial planning.

Opportunities exist to incorporate risk, alternative analysis around topical issues, more accessible financial data and deeper understanding of spending and projections across the enterprise. Conceptually, frequent, active monitoring, integrated with clear accountability for control and action can help narrow variance in financial performance and increase affordability. There are additional opportunities to improve both accountability and the efficiency of the process including potentially moving to a rolling 24-month projection standard.



Action 3B. Provide core/simple financial information on capital and operations and maintenance more frequently and broadly, making the data useful, accessible and actionable for managers.

Over the past year, the instability of the City's financial system has exacerbated reporting issues. Financial data is more complex, including several overheads, paid time off, allocated costs and interdepartmental billing. This complexity has become a challenge in providing useful and timely reporting to budget managers. There is a need to report complex calculations in a meaningful and timely manner and allow for more self-service reporting. Additional opportunities exist to include new report formats that work for both Budget and Department clients, including a set of expectations on timing, review, and actions.

Action 3C. Pilot the use of organizational capacity analysis and staffing forecast tools.

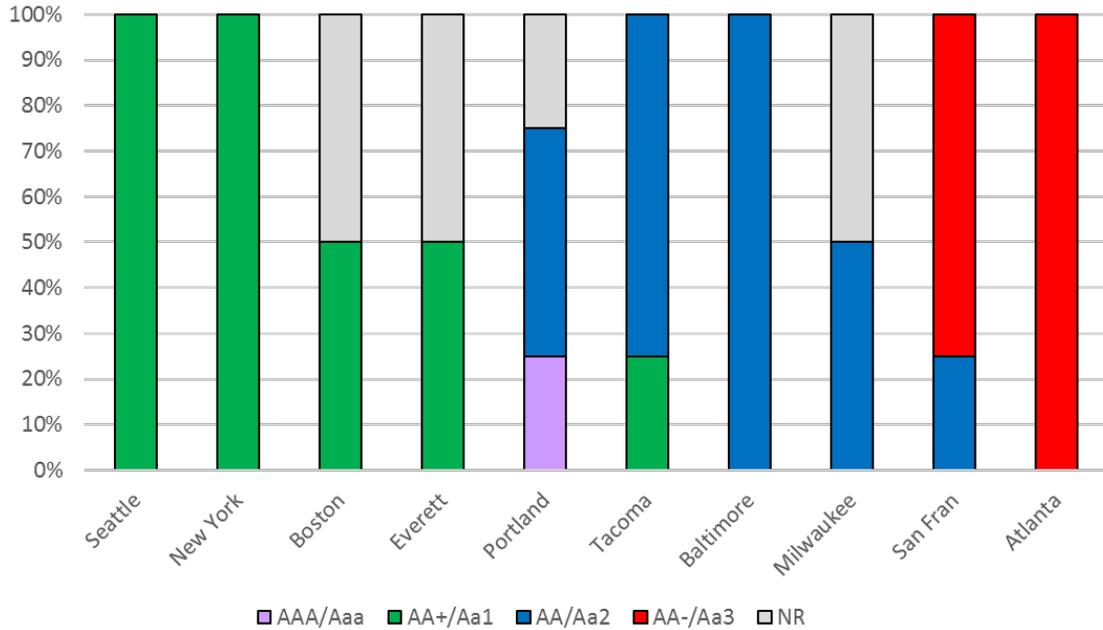
Capacity analysis, which includes forecasting demand and analyzing whether an organization has sufficient resources to meet the demand under different scenarios, is not widely used in SPU. This type of analysis can allow an organization to identify resource gaps or excesses, explore alternatives, and identify opportunities for either using excess capacity or filling projected gaps in capacity. SPU has some capability and tools for doing this work in some areas but the current work on capacity analysis and active use of staffing forecast tools focuses on the short-term monthly or annual planning. This pilot will focus on the development of both tools and skills to enhance long-term planning and manage operational risks.

Attachment A: SPU's Bond Ratings and Comparisons

SPU Bond Ratings

Tool	Standard and Poor's	Moody's
Prime maximum safety	AAA	Aaa
High grade high quality	AA+ Water, Drainage & Wastewater and Solid Waste	Aa1 Water and Drainage & Wastewater
	AA	Aa2
	AA-	Aa3 Solid Waste
Upper medium grade	A+	A1
	A	A2
	A-	A3
Lower medium grade	BBB+	Bbb1
	BBB	Bbb2
	BBB-	Bbb3
Non-investment grade	BB+	Bb1

Water & Sewer/Stormwater Bond Ratings (% in each category by Jurisdiction)



Attachment B: Examples of Laws and Regulations Affecting SPU

Primary Goal of Law/Regulation

-Protect Human Health and Safety

-Protect or Enhance Environmental Quality

-Ensure Social Equity

-Support Local Economy

Level	Law/Regulation	Water LOB	DWW LOB	Solid Waste LOB
Federal	Safe Drinking Water Act	●	○	○
	National Environmental Policy Act	●	●	●
	Clean Water Act	○	●	○
	Clean Air Act	○	○	●
	Endangered Species Act	●	●	
	Resource Conservation and Recovery Act	○	○	●
	Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA/Superfund)		●	●
	Federal Water Power Act (FERC)	●		
	Homeland Security Act	●	●	●
	Flood Disaster Protection Act	●	●	
	Fair Labor Standards Act	●	●	●
	Americans with Disabilities Act (ADA)	●	●	●
	The Occupational Safety and Health Act (OSHA)	●	●	●
State	NPDES General Permits	○	●	○
	State Environmental Policy Act	●	●	●
	Water Code	●		
	State Accountancy Act	●	●	●
	Business and Occupation Tax	●	●	●
	Group A Public Water Supplies (WAC 246-290)	●		
	The Washington Industrial Safety and Health Act (WISHA)	●	●	●
Local (City/County)	Procurement of consultant services (SMC 20.50)	●	●	●
	Business Tax—Utilities (SMC 5.48)	●	●	●
	*Cross-connections (SMC 21.04.070)	●	○	
	*Solid Waste Handling (SMC 21.44)			●
	*Stormwater Code	○	●	○

*SPU is the regulator