Appendix A - 2025-2030 Highlighted Initiatives and Investments Detail

Focus Area	Effort	Type	Line of Business				Rate Impact		
			Water	Drainage & Wastewater	Solid Waste	All	Continued Base Funding	Increased Funding	New Investment
Delivering Equitable Essential Services	1. North 'One Water' Operations Facility	Investment	✓	✓			✓	✓	
	2. In House Water Quality Treatment	Investment	✓				✓	✓	
	3. Field Engineering Improvements Program	Initiative				✓	✓		✓
	4. SPU Support Services for the Unsheltered	Investment		✓	✓		✓		
	5. Duwamish Valley Resilience	Investment		✓			✓	✓	
Stewarding Environment and Health	6. Shape Our Water – Citywide Focus Area Drainage and Wastewater Planning	Initiative		✓			✓		
	7. Water Supply Planning for the Next 50 Years	Initiative	✓				✓		
	8. Cedar and Tolt Watershed Resilience	Initiative	✓				✓		
	9. Upstream Legislative Strategies to Reduce Pollution and Waste	Initiative				✓	✓		
	10. 2030 Carbon Neutrality and Sustainable Operations	Initiative				✓	✓		✓
	11. Waste Prevention and Diversion	Investment			✓		✓	✓	
Empowering Customers, Community, and Employees	12. Customer Affordability Programs	Initiative				✓	✓		
	13. Side Sewer Assistance Program	Investment		✓			✓		✓
	14. Advanced Metering Infrastructure Planning	Investment	✓						✓
	15. Seeds of Resilience Impact Investment Fund	Initiative				✓	✓		
	16. Equity in Contracting	Initiative				✓	✓		
	17. Employee Life Cycle Initiatives	Initiative				✓	✓		✓
Strengthening Our Business Practices	18. Alternative Funding and Financing	Initiative				✓	✓		
	19. Drainage and Wastewater Asset Management Program	Investment		✓			✓		✓
	20. Water Asset Management and Seismic Program	Investment	✓				✓		✓
	21. Strategic Technology Plan	Investment				✓	✓		

About

'Highlighted Initiatives and Investments' are representative examples of how SPU will advance the strategies described in the Strategic Business Plan. Initiatives represent policy, planning, and program work and generally require less significant expenditures (under $5M). Investments result in tangible infrastructure, asset, asset repair, or service and require more significant investment (over $5M).

Initiatives and investments represent a mix of continued base rate funding as well as new funding or increased investments. All initiatives and investments are funded through SPU rates except for SPU's support services for the unsheltered investment which is primarily funded by City of Seattle general fund dollars as part of the Clean City program. SPU's drainage and wastewater asset management work, water asset management and seismic work reflect multipart investments that will be reported on individually within the context of a broader program.

SPU 2025-2030 Strategic Business Plan Investments and Initiatives Summary

(All budget estimates are for the six-year period 2025-2030)

Focus On: Delivering Equitable Essential Services		
North "One Water" Operations Facility	$73.1m	Replace the North Operations Center and Haller Lake facilities with a new "One Water" operations complex.
In-House Water Quality Treatment	$132.1m	SPU to take over operations of the Tolt and Cedar River drinking water treatment facilities.
Field Engineering Improvements Program	$3.4m	Hire three senior engineers to be embedded in field service teams.
SPU Support Services for the Unsheltered	$21.9m	Continue providing encampment trash-removal (with City general funds) and RV wastewater pump-out services.
Duwamish Valley Resilience	$197.8m	Comprehensive partnerships to improve flood mitigation, water quality and community resilience, and health in the Duwamish Valley.

Focus On: Stewarding Environment and Health		
Shape Our Water – Citywide and Focus Area Drainage and Wastewater Planning	$3.2m	Develop drainage and wastewater area plans for neighborhoods with inadequate infrastructure or a history of underinvestment.
Water Supply Planning for the Next 50 Years	(no additional budget need identified)	Assess and plan for water supply needs for the next 50 years.
Cedar and Tolt Watershed Resilience	(no additional budget need identified)	Protect Seattle's source supply watersheds through wildfire risk management, watershed protection measures, and forest management.
Upstream Legislative Strategies to Reduce Pollution and Waste	(no additional budget need identified)	Work with federal, state, and regional governments to reduce and prevent toxic/hazardous materials and excess waste from impacting human health.
2030 Carbon Neutrality and Sustainable Operations	$2.7m	Implement sustainability innovations and conservation improvements in SPU operations and facilities.
Waste Prevention and Diversion	$9.9m	Implement five waste prevention and reuse programs to progress toward our Zero Waste goal.

Focus On: Empowering Customers, Community, and Employees		
Customer Affordability Programs	(no additional budget need identified)	Continue Utility Discount, emergency financial assistance, payment flexibility, and shutoff prevention programs to keep SPU services affordable and available to lower-income customers.
Side Sewer Assistance Program	$10.4m	Continue providing 0% interest loans to low-income customers in need of urgent side-sewer repairs, adding incentives for maintenance and pipe lining.
Advanced Metering Infrastructure Planning	$750k	Plan for the replacement of aging mechanical water meters with electronic, automated meters that can be monitored remotely.
Seeds of Resilience Impact Investment Fund	$3.6m	Foster growth of small enterprises to meet business needs of SPU.
Equity in Contracting	(no additional budget need identified)	Engage WMBE firms to improve access to contracting opportunities.
Employee Life Cycle Initiatives	$2.4m	Promote equity and inclusion throughout all phases of the employee experience.

Focus On: Strengthening Our Business Practices		
Alternative Funding and Financing	(no additional budget need identified)	Improve SPU's ability to leverage external funding and partnerships.
Drainage and Wastewater Asset Management Program	$14.1m	Reline aging sewer pipes to extend life and improve resiliency of drainage and wastewater infrastructure.
Water Asset Management and Seismic Program	$395.1m	Replace aging water mains and water service lines and complete seismic upgrades of water storage and distribution facilities.
Strategic Technology Plan	$105m	Implement technology solutions to improve system operations efficiency, sustainability, cybersecurity, and customer responsiveness.

1. North 'One Water' Operations Facility

SBP Focus Area	Delivering Equitable Essential Services
SBP Goals	Invest in our employees
SBP Strategy	Foster a More Equitable Workplace, Work Culture, and Better Work Opportunities
Type	Investment
SPU Branch/LOB	DWW and Water
Executive Sponsor	Ellen Stewart and Alex Chen
Project Manager/Lead	TBD
Reporting Cadence	Quarterly
Funding	50/50 split between DWW and Water funds
Last Update	May 2023

Part 1. Summary of the Investment

The North Operations Center and Haller Lake facilities are emergency-critical SPU workforce facilities. Located outside of known seismic, flood, and landslide-hazard zones, these facilities have the potential to remain functional and support sustained, in-person operations within 24 hours of an earthquake emergency. Currently, these facilities are out-of-date and require significant updates to meet frontline workforce needs.

This investment replaces both facilities with a 'One Water' operations complex in North Seattle that supports the Drainage and Wastewater and Water lines of business. This multi-benefit investment addresses a significant need and positions the utility to better support our workforce and customers through more resilient facilities.

Part 2. Targeted Commitments and Performance Measures

It is expected that a new operations complex will take approximately 10 years to complete. In the 2025-30 business planning period, the project is expected to move through land acquisition, pre-design, design, and begin construction.

Part 3. Financial Summary

The costs summarized are based on a total desired cost of $120M for the 2024-2033 program. The preferred alternative has not been identified and costs may range from as low as $120M to as high as $170M. This scenario is a placeholder for phasing estimation with a breakdown of about $30M for land acquisition, $64M in hard/construction costs, and $26M in soft costs.

Program Title	**SPU Workforce Facilities Investments ($000's)**

Project Name	DWW and Water "One Water" North Ops Facility						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline O&M	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Baseline Capital	800	600	2,150	7,000	2,500	n/a	13,050
Additional Capital needed	11,800	9,800	8,250	12,850	8,675	8,675	60,050
Total	**12,600**	**10,400**	**10,400**	**19,850**	**11,175**	**8,675**	**73,100**

Part 4. Capacity Plan to Deliver (Existing/Capital Only)

SPU has a proposed position in the 2024 budget intended to lead the implementation of the Workforce Facilities Master Plan update. This position will move forward with land acquisition and assembling a project team in early 2024.

Part 5. Racial Equity Impact

SPU's workforce facilities investments reflect the Utility's commitment to support its workforce equitably, reduce its environmental impact, and enhance the communities SPU serves.

Part 6. Climate and Sustainability Impact

For facilities planning purposes, a frontline worker is defined as someone who must physically report to work at an SPU-operated facility. Climate change impacts are experienced acutely by frontline workers, such as more severe weather events, increasingly stressed infrastructure, and worsening summer heat and wildfire smoke. SPU is in the process of developing an updated workforce facilities master plan. The findings from this project include the need for buildings to have capacity for additional staff and the ability to accommodate shift work, as well as to remain fully functional during shocks or stresses to infrastructure. Investments in resilient workforce facilities are critical to SPU's climate resilience goals, workforce recruitment/retention, and worker health and safety.

Part 7. Affordability Impact

SPU is working to create an asset management program for its workforce facility (WFF) portfolio. The WFF portfolio has been operated utilizing a run-to-failure model. SPU is beginning work to standardize the onboarding, maintenance, management, and capital investment in its workforce facility portfolio. The switch to proactive asset management will help SPU thoughtfully phase investments to minimize impacts to rate payers rather than reacting to expensive failures.

Part 8. Alternatives and Options to Consider

The project is currently in the early alternatives development phase which will continue to progress through 2023. Options that are being considered are related to property selection and the program of the new complex, including which functions may remain on the existing NOC and Haller Lake properties.

2. In House Water Quality Treatment

SBP Focus Area	Delivering Equitable Essential Services
SBP Goals	Provide reliable, quality services that meet requirements and commitments
SBP Strategy	Provide resources, facilities and remove barriers to ensure frontline service delivery staff can be successful
Type	Investment
SPU Branch/LOB	Water
Executive Sponsor	Alex Chen
Project Manager/Lead	Winsome Robinson Williams
Reporting Cadence	Quarterly
Funding	Water Fund 43000
Last Update	September 2023

Part 1. Summary of the Investment

SPU's Tolt and Cedar River Treatment Facilities are vital to providing safe, clean drinking water for customers and meeting regulatory requirements. To ensure continuity of service, SPU will take over operations of both facilities when current Design-Build-Operate (DBO) contracts expire in 2025 (Tolt) and 2029 (Cedar River). Taking over operations, maintenance, and management of these facilities is a major undertaking that will expand our internal capabilities and increase resilience. The Design-Build-Operate (DBO) contract for the Cedar Treatment Facility, which began in 2001, will end no later than 2029. For the purposes of budget planning and as presented in this discussion, it is assumed that in 2029 SPU will take over operation and maintenance of the Cedar Treatment Facility as is already planned for the Tolt Treatment Facility in 2025.

Part 2. Targeted Commitments and Performance Measures

Major Milestones	Anticipated Outcomes	Timing
SPU takes over operation & maintenance of Tolt facility from American Water	Successful transition with no service impacts	2025
SPU takes over operation & maintenance from Jacobs	Successful transition with no service impacts	2029

Part 3. Financial Summary

Program Title	**Drinking Water Treatment ($000's)**						
Project Name	Tolt Treatment Facility						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline O&M	5,731	5,960	6,198	6,446	6,704	6,972	38,011
Baseline Capital	2,120	2,247	2,382	2,525	2,676	2,837	14,788
Total Baseline	**7,851**	**8,207**	**8,580**	**8,971**	**9,380**	**9,809**	**52,799**

Projected O&M	8,113	8,449	8,956	9,494	10,063	10,667	55,743
Proj. Capital	2,120	2,247	2,382	2,525	2,676	2,837	14,788
Total Projected	**10,233**	**10,697**	**11,338**	**12,019**	**12,740**	**13,504**	**70,531**

Program Title	**Drinking Water Treatment ($000's)**						
Project Name	Cedar Treatment Facility						
($000's)	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline O&M	4,881	5,076	5,280	5,491	5,710	5,939	32,377
Baseline Capital	2,120	2,247	2,382	2,525	2,676	2,837	14,788
Total Baseline	**7,001**	**7,324**	**7,662**	**8,016**	**8,387**	**8,776**	**47,165**
Projected O&M	5,787	6,192	6,951	7,438	9,911	10,505	46,783
Proj. Capital	2,120	2,247	2,382	2,525	2,676	2,837	14,788
Total Projected	**7,907**	**8,439**	**9,333**	**9,963**	**12,587**	**13,342**	**61,570**

Part 4. Capacity Plan to Deliver (Existing/Capital Only)

This transition will include hiring several new staff for the operation, maintenance, and management of the treatment facility, and this is shown in Part 6.

In addition, support will be needed from different groups:

CIP:

- SPU Security
- PDEB

O&M:

- Human Resources
- Seattle IT and Telephone Services
- SPU Security
- Maintenance Planning
- SPU Safety
- SPU Accounting
- SPU Facilities and Fleets
- SPU Grounds Maintenance

Part 5. Racial Equity Impact

In terms of service to our customers, the Tolt Treatment Facility is common to the SPU and its wholesale customers that receive water via the water transmission system. This transition will end the operation of this SPU facility by a private company. It presents the opportunity for SPU to implement RSJ policies at the facility. The hiring process will follow SPU Human Resources policies and procedures and the RSJ considerations and practices incorporated therein.

No final decision has been made about operation and maintenance of the Cedar Treatment Facility after the DBO contract expires; therefore, no projection as to racial equity or vulnerable and historically disadvantaged communities is made herein.

Part 6. Department Workforce Impacts

This will require hiring of several positions for operation, maintenance, and management of the facility. The positions included in this budget projection are:

Position	FTEs (Tolt)	FTEs (Cedar)
Water Treatment Manager	1	1
Water Treatment Supervisor	1	1
Water Treatment Operator	9	9
Water Treatment Plant Instrumentation Tech	1	1
Water Treatment Plant Maintenance Tech	2	2
Electrician	2	2
Admin Support Asst	1	1
Utility System Maintenance Tech	1	1
Water Treatment Equipment Tech	1	1
SCADA tech	1	1
SCADA programmer	1	1
WQ Engineer	1	1

Part 7. Alternatives and Options to Consider

For the Tolt Treatment Facility, alternatives were presented to the Asset Management Committee in 2022. The AMC approved SPU taking over the operation and maintenance of the Tolt Treatment Facility at that time.

For the Cedar Treatment Facility, alternatives have not yet been evaluated for this situation in 2029. Discussion here is for budget planning only.

3. Field Engineering Improvements Program

SBP Focus Area	Strengthening our Utilities Business Practices
SBP Goals	Provide reliable, quality services that meet requirements and commitments
SBP Strategy	Provide resources, facilities and remove barriers to ensure frontline service delivery staff can be successful
Type	Initiative
SPU Branch/LOB	DWW and Water LOB/Shared Services
Executive Sponsor	Ellen Stewart and Alex Chen
Project Manager/Lead	Tara Wong Esteban
Reporting Cadence	Annually
Funding	New O&M Add , 0.67 DWW, 0.33 Water
Last Update	September, 2023

Part 1. Summary of the Investment

To improve the delivery of operable Drainage and Wastewater projects, SPU will hire senior engineers to provide O&M expertise and support to project teams. These engineers will be embedded with frontline crews to better understand and represent their work, provide quick turnaround on design solutions and real-time help to resolve problems in the field, support crews as they respond to emergency or special projects, and represent O&M needs on capital projects.

As part of the Affordability and Accountability (A&A) Initiative, Strategy 2 – Improve Capital Delivery; Item H - Incorporate Operational Considerations, SPU looked at how to improve delivery of operable DWW projects. Data gathering and problem definition began in 2020 and covered all operable facilities. In 2021, the focus was narrowed to collect information only around DWW Pump Station program because it contains the bulk of current and proposed operable facility projects.

We interviewed many groups from SPU to document challenges, lessons learned, and successes. These interviews included staff from operations, maintenance, design engineering, project managers, line of business representatives, asset managers, and construction management. We consistently heard that we needed dedicated staff whose primary role is to provide operations and maintenance (O&M) expertise and support on project teams. We heard that the O&M voice was missing on all capital projects (not just projects with operable components) and that O&M engineering support is needed in the field to support our crews.

Additionally, we heard directly from frontline staff across SPU who participated in the Empowering Frontline Staff initiative (thru Shaping the Future) that they wanted field engineering O&M positions to support key field operations units. The consensus was that the O&M engineer should be embedded with the frontline crews to build trusting relationships and to both understand and represent their work and their needs. The engineer could provide quick turnaround on design solutions, help crews problem solve issues in the field more quickly,

support crews as they respond to emergency projects or special projects, and represent O&M needs on capital projects.

This investment provides 3.0 FTE Senior Engineer positions:

- 1.0 FTE dedicated to Wastewater
- 1.0 FTE dedicated to Drainage
- 1.0 FTE dedicated to Electrical

Senior level positions are needed to provide experienced engineers who can make decisions and judgement calls independently when they are in the field. These three new positions could report to Shared Services but should be co-located with our frontline staff. This investment will supplement the work of the single mechanical engineer that currently supports our Water and DWW crews who is planning to retire in early 2025. Recently, a Senior Civil Engineer was hired to shadow the sole Mechanical Engineer and will be trained over the next 20 months to become his replacement. In turn, this newly hired Civil Engineer will be able to on-board and train the new O&M Engineers. The new O&M Engineers will 1) provide engineering support and direction in the field to frontline staff and 2) represent O&M needs on capital projects.

This initiative also includes two electric vehicles for these engineers to share so they can spend time in the field with crews and be readily able to respond to emergencies or calls for assistance.

Part 2. Targeted Commitments and Performance Measures

Major Milestones	Timing
Hire 3.0 new Sr Engineers	Q2 2025

Part 3. Financial Summary

Program Title	**Field Engineering Improvement Program ($000's)**						
Project Name	O&M Engineer						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline O&M	574	574	574	574	574	574	3,444
Baseline Capital	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Baseline	**574**	**574**	**574**	**574**	**574**	**574**	**3,444**

Annual costs for 3 Sr Engineers at $182,573 each, plus costs for leasing and maintenance of electric vehicles

Part 4. Capacity Plan to Deliver (Existing/Capital Only)

N/A – this is an O&M cost

Part 5. Racial Equity Impact

This investment ensures we are adequately supporting and representing the needs of our O&M staff. We invest millions of dollars in capital projects and need to improve identifying O&M issues before the projects are completed. Otherwise, our limited frontline workforce is asked to retrofit or correct new construction which pulls them away from completing routine maintenance or other high priority work.

We have lost institutional knowledge as experienced employees have left and at times our frontline staff are on their own trying to figure out solutions to problems. The O&M engineers will become integrated with frontline staff and will eventually build a relationship of trust and respect (as demonstrated by our single mechanical engineer).

Today's lack of support for O&M impacts a field workforce that has a higher percentage of people-of-color. They inherit issues and problems through capital projects that should not be their responsibility to resolve. These problems are far outside of their classifications, were not planned for or identified ahead of time, and frontline staff do not have any influence over the capital programs and processes.

Part 6. Climate and Sustainability Impact

O&M engineers will support installation of new and replaced assets that provide: improved water quality in creeks and lakes (green stormwater infrastructure (GSI), CSO control), heat island reduction (GSI), flood and landslide mitigation (drainage projects), drinking water resilience (water transmission and watersheds).

Part 7. Affordability Impact

O&M Engineers will support project teams resulting in less resources (money and labor) spent addressing issues with newly constructed or replaced assets. Providing timely support for our crews will lower labor and equipment costs for repairs and will improve the longevity of repaired assets.

Part 8. Alternatives and Options to Consider

For capital projects, SPU experimented with eliminating the O&M Engineer role and instead asked the Line of Business Representative to represent and identify O&M needs and requirements on capital projects. We've seen over the past several years that this model is not efficient or effective. Other project team members from DWW SOPA and Project Delivery and Engineering Branch (PDEB) engineering attempt to liaise with O&M staff to meet this need, but this isn't efficient or effective either. The current system often results in rework/fixes/retrofits on newly constructed capital projects costing additional funding and taking frontline staff away from their core work.

Frontline staff need engineering support when dealing with complicated issues in our facilities and systems. We should duplicate a model that works well – the way our single mechanical engineer interacts with and supports crews, capital projects, and emergency response. PDEB engineering can also provide occasional support and will continue to do so when a design requires a licensed engineer with specific expertise and the ability to seal designs. PDEB engineering does not have the capacity to respond to the frequency and urgency of many smaller issues that arise - this can be better met by embedded O&M Engineering staff.

To meet the unpredictable nature and urgency of emergency projects and to maintain continuous operation of our DWW and Water systems, frontline staff need their own dedicated O&M engineers whom they can call upon when needed. PDEB needs dedicated O&M engineers who are assigned to support capital projects and who are empowered to represent the needs of the end-user. Asset managers need dedicated O&M engineers so they can return their focus on strategic asset management work instead of trying to represent the needs of O&M on capital projects.

4. SPU Support Services for the Unsheltered

SBP Focus Area	Delivering Equitable Essential Services
SBP Goals	Make equitable investments to improve services for underserved and over- burdened communities.
SBP Strategy	Prioritize and support equitable access to essential services.
Type	Investment
SPU Branch/LOB	DWW, PCC
Executive Sponsors	Gary Christiansen, Lee Momon
Project Manager/Lead	Chris Wilkerson
Reporting Cadence	Quarterly
Funding	Baseline funding
Last Update	November, 2023

Part 1. Summary of the Investment

RV Remediation Program

The RV Remediation Program addresses the public health and safety impacts of trash and debris produced by recreational vehicles (RVs) and other vehicles occupying the public Right-of-Way. In 2022, these efforts were implemented by Seattle Public Utilities (SPU) and performed in collaboration with the Unified Care Team (UCT), an intradepartmental team formed under Mayor Harrell's administration. UCT is composed of Seattle Parks and Recreation (SPR), Seattle Department of Transportation (SDOT), Seattle Human Services Department (HSD), Seattle Police and Fire departments, and Seattle Finance and Administrative Services (FAS).

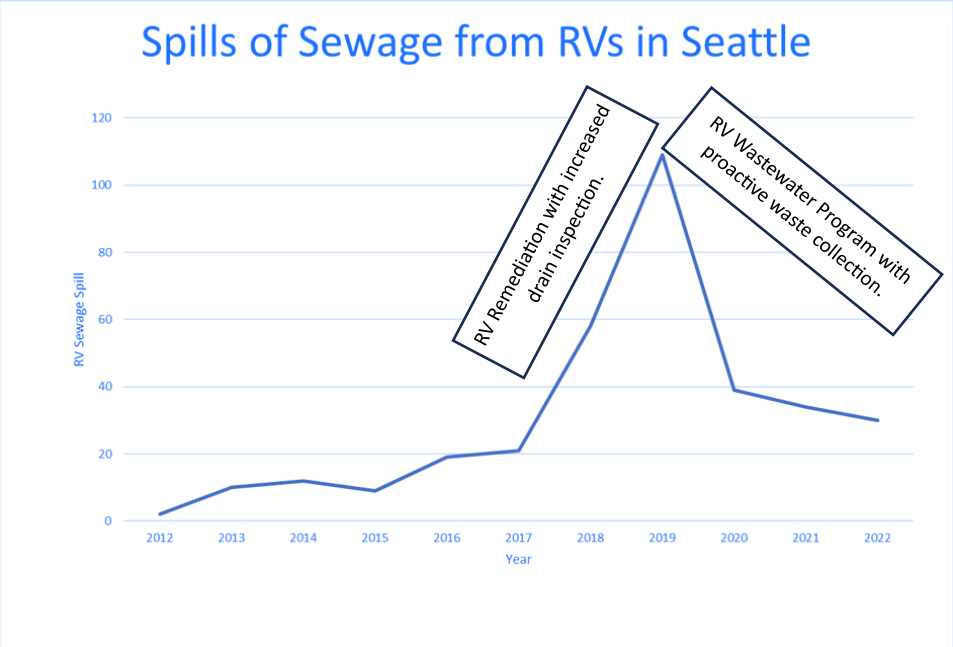
Some of the main objectives are to improve public access to the right-of-way, minimize public health and safety hazards associated with RV camping, and increase opportunities for those experiencing homelessness to find stability.

In addition to the RV Remediation Program, In 2022, SPU started a Pilot called Geo-Cleans to address growing community concerns associated with public health and safety risks involving clusters of RVs; SPU conducts Geo Cleans to provide a swift and consistent response to mitigate ongoing trash and debris from RVs located throughout City neighborhoods. The Geo Clean sites identified for routes are addressed weekly. The main objectives include improved access to the right-of-way and minimizing public health and safety hazards associated with RV camping without requiring the RV occupants to move their vehicles.

Another program addressing community and sanitation issues presented by RVs in the public Right-of-Way is the RV Wastewater Pump Out program operated by the DWW LOB, which prevents dumping of wastewater storage tanks onto the ground or into drainage basins.

RV Wastewater Pump Out Program

Nearly half of Seattle's unhoused population live in vehicles, many in recreational vehicles (RV's). These recreational vehicles are often concentrated in encampments with minimal access to sanitary sewer or pump out removal (the nearest pump out station is 25 miles outside of Seattle city limits). Many of these RV's have broken plumbing or are unable to be moved, compounding the challenge of removing wastewater with traditional methods. RV's occupying encampments often dump waste in drainage basins, streets, or adjacent properties. Spills attributed to RV wastewater spills showed an exponential increase until peaking in 2019, the year the RV Wastewater program was first piloted. Since the RV Wastewater Program's inception, we have realized a 72% drop in these incidents (see graph below).



As a result of the drop in incidents of illegal dumping because of the proactive pumping of wastewater, SPU's Spill Response Team members have been able to shift their focus to other areas of Environmental Compliance like line cleaning, business inspections and spill prevention.

Encampment Trash Program

The Encampment Trash Removal Program, also referred to as the Purple Bag Program, provides proactive weekly garbage service to nearly 30 selected homeless encampments. The goal is to improve encampment conditions and minimize public health and safety hazards by reducing community trash.

SPU works closely with city agencies such as SDOT and Parks, community stakeholders, and advocates to address encampment trash. SPU provides purple garbage bags issued to encampment residents by contracted outreach partners.

The program activities include collecting and disposing of authorized garbage, bulky items, and hazardous materials and distributing authorized purple garbage bags to encampment residents. On-call trash collection is available at least 20 feet away from encampments to avoid collecting personal property. Site assessments, data collection, and outcome

SPU serviced an average of 30 unsanctioned homeless encampments and collected over 782,000 pounds of trash and debris. The utility also engaged with over 2,900 encampment residents, distributing over 11,000 Purple Bags.

Part 2. Targeted Commitments and Performance Measures

Major Milestones	Anticipated Outcomes	Timing
Average 100 RV Pump-outs /Month	<40 Spill Responses/Year (72% reduction)	Annually
5,246 wastewater collections	~250,000 gallons of wastewater diverted from the environment	Annually
100+ Geo Cleans per year	>500,000 pounds of trash collected	Annually
30+ Encampment sites serviced per year	>750,000 pounds of trash collected	Annually

Part 3. Financial Summary

Program Title	SPU Clean City and Support Services for the Unsheltered ($000's)						
Project Name	RV Remediation and Encampment Trash Programs						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline O&M	3,100	3,100	3,100	3,100	3,100	3,100	18,600
Baseline Capital	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Baseline	**3,100**	**3,100**	**3,100**	**3,100**	**3,100**	**3,100**	**18,600**

As Clean City Division programs are funded by the **City General Fund** and dependent on budget decisions outside of SPU, we cannot predict our budget beyond the current year. Numbers provided assume current level of effort is funded.

Program Title	SPU Clean City and Support Services for the Unsheltered ($000's)						
Project Name	RV Wastewater Pump Out Program						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline O&M	550	550	550	550	550	550	3,300
Baseline Capital	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Baseline	**550**	**550**	**550**	**550**	**550**	**550**	**3,300**

As a part of SPU's proposed 2021-2022 budget, the RV Mobile Pump Out pilot was budgeted [DWW base budget] through 2022. In 2023 the program was fully evaluated and adopted as a

permanent program. This included FTE position allocation and funding for the required services. Funding for the program comes from rate revenue. This financial summary is based on the projected budget in 2023 dollars.

Part 4. Capacity Plan to Deliver

The RV Remediation and Encampment Trash Programs are staffed by 2.5 FTE pockets and supported by the General fund.

The RV Wastewater Pump Out program is staffed by 1.5 FTE pockets and supported by contract wastewater service provider and partnership MOAs with several non-profit community-based organizations, including St. Vincent De Paul.

Part 5. Racial Equity Impact

The Clean City programs are committed to establishing inclusive and equitable relationships with all communities and individuals inside and outside the utility. The Division will continue intentionally fostering SPU's workplace culture, public outreach, engagement work, and service equity initiatives throughout the City of Seattle.

The RV Wastewater Pump Out program focuses on pumping live-in RV wastewater tanks wherever they are parked throughout the City of Seattle. Individuals served by this program are very low income. However, because the community served has a general lack of trust and unwillingness to provide personal information, collection of income, race, or household data in order to avoid potential conflict and refusal to accept services.

Part 6. Climate and Sustainability Impact

In 2023, Seattle Public Utilities Clean City Division collected and disposed of 1.5 million pounds of garbage from GeoCleans, RV remediations, and encampments, contributing to environmental protection and public health preservation.

Since the RV Wastewater Pump Out program's inception in 2019 there have been approximately 250,000 gallons of wastewater diverted from the environment protecting public health and critical fish habitats.

Part 7. Affordability Impact

The Clean City programs are General Funds, and no Rate Payer dollars are used to fund the programs.

Depending on the complexity of the clean-up, proactive RV Wastewater pumping is 25-75% less costly than a reactive response to illegally dumped wastewater.

Part 8. Alternatives and Options to Consider

Starting in 2023, The Clean City Division initiated an RV Rescue Pilot program to help RVs and other motor vehicles avoid being towed due to not being able to move their vehicle every 72 hours. The program offers small amounts of gasoline, tire inflation, jump starts, and other minor maintenance repairs to enable the vehicle to move off the block face and comply with the City of Seattle's 72-hour On Street Parking Ordinance.

The results of 2023 will determine if this Pilot should become a full Clean City Division program.

A permanent RV Dump Station has been considered, however has not been moved forward due to staffing limitations.

5. Duwamish Valley Resilience

SBP Focus Area	Delivering Equitable Essential Services
SBP Goals	Make equitable investments to improve services for underserved and over- burdened communities.
SBP Strategy	Prioritize and support equitable access to essential services
Type	Investment
SPU Branch/LOB	Drainage & Wastewater
Executive Sponsor	Ellen Stewart
Project Manager/Lead	TBD
Reporting Cadence	Quarterly (for investments)
Funding	Continued Base Funding + Increased Funding
Last Update	NA

Part 1. Summary of the Investment

This investment is a holistic approach to fostering flood mitigation, water quality, salmon habitat improvement, and community resilience in Georgetown and South Park. The investment is focused on integrating, coordinating, and aligning three workstream funding sources described below to deliver better outcomes to community.

Existing SPU DWW CIP Funded

SPU has approximately $93M for DWW infrastructure, plus an additional $83M for Duwamish River sediment remediation work, allocated in the 2025-2030 budget. These investments include multiple near-term DWW infrastructure investments.

The South Park Roadway and Drainage Project, Phase 2 will install pipes to expand the footprint and the number of blocks served by the recently completed South Park pump station. The South Park Stormwater Quality Facility will remove pollutants from stormwater being pumped by the South Park Pump Station before it enters the Duwamish River. Additional flood reduction and water quality improvement investments are anticipated in collaboration with King County Wastewater Treatment Division's (WTD) Long-term Planning for sewer overflow reduction.

The Lower portion of the Duwamish Waterway is a CERCLA Superfund cleanup site located within the lowest five miles of the Duwamish River. The cleanup of the contaminated river sediments is managed by the US Environmental Protection Agency (EPA) with the Washington Department of Ecology (Ecology) overseeing the uplands source control work to prevent recontamination of the sediments once cleanup has begun. SPU and SCL partner with King County and Boeing to accomplish the cleanup work, including providing stakeholder input into procedures and approaches and financially contributing per allocation agreement. The Upper Reach portion of the site (River Mile 3.0-5.0) is scheduled for cleanup construction starting in Fall 2024. The next portion of the river slated for cleanup is the Middle Reach (River Mile 1.0-

3.0) with a determination of sufficiency scheduled for issuance in 2027. The Lower Duwamish Working Group website provides more information on the cleanup.

SPU funded via increased budget authority – South Myrtle Street Drainage & Water Quality

Prior to the cleanup of the river sediments, the EPA relies on Ecology to recommend a determination of "Sufficiency", stating that inputs of pollutants to the river are sufficiently controlled and cleanup may progress with low risks of recontamination. For Ecology to issue a sufficiency determination for the Middle Reach of the Lower Duwamish Waterway, the City will need to improve the right of way, add drainage conveyance as necessary, and design and construct one or more small treatment systems in the vicinity of the outfalls at S Myrtle St and S Garden St in the industrial area of Georgetown. Unless runoff from this small drainage area is treated, Ecology will inform the EPA that the Middle Reach is not sufficiently controlled, and the cleanup of the Lower Duwamish Waterway will be delayed. This delay will continue until this drainage system is found to be sufficiently controlled. For this reason, SPU is proposing to add the South Myrtle St Drainage Project, which is needed to secure sufficiency determination.

This O&M budget increase is needed for staffing the added water quality facilities (South Myrtle St Drainage and South Park Water Quality Facility).

Duwamish Valley Resilience Investments

On 12/27/2022, the Duwamish River overtopped its banks, impacting acres of industrial and residential land, 49 properties, and overwhelming existing sewer systems. This was the second of two impactful tidal river flooding events in 2022. Flooding will increase in severity and frequency with expected sea level rise (SLR). Duwamish Valley land comprises 80% of all Seattle lands prone to SLR-related flooding. Planned drainage and sewer system investments will help alleviate stormwater flooding and sewer backups in the area, but they will not address tidal flooding or SLR adaptation infrastructure. Unchecked, this will result in recurrent damage and expense to residents, businesses of regional importance, and the City, costing millions per year. It will also unduly burden Black, Indigenous, people of color (BIPOC); immigrants; and families with low wealth who comprise most of the adjacent neighborhoods. Duwamish Valley Resilience Investments pertain to long-term adaptation to SLR-related flood risk and community resilience. These investments are adjacent and complementary to the DWW CIP described above but are separate because they relate to flooding from river and estuarine processes in the highly channelized and developed river system.

Given SPU's expertise with water management, complex capital infrastructure and funding delivery, and regulatory compliance, as well as the tidal impact on SPU drainage and conveyance infrastructure systems in the area, SPU will act as a primary coordinator and facilitator for the Duwamish Valley Resilience Investments planning and project delivery in collaboration with other City departments. SPU's DWW funding will be focused on protecting our DWW infrastructure from flooding, to prevent sewer backups, and to address water quality source control and sediment remediation. The work of the proposed Duwamish Valley

Resilience Investments will leverage the significant DWW infrastructure investments and will support development of additional funding partnerships where external funding is required. This includes, for instance, the pursuit of King County Flood Control District, Washington Climate Commitment Act, Department of Ecology, and Floodplains by Design funding, salmon habitat funding, and support for SLR-related flood control planning and flood preparedness work that will be simultaneously beneficial to SPU DWW service delivery.

The City has a long history of involvement in the Duwamish Valley and Superfund site. In addition to the City's role in the Lower Duwamish Waterway Group (LDWG), we have committed to extensive investments in the area. 2016, the City launched an interdepartmental Duwamish Valley Program (DVP) to advance environmental justice and equitable development. The Duwamish Valley Action Plan, released in June 2018, is a shared City-community vision to promote collaboration, guide City investments, and build resilience for years to come. It commits the City to develop five long-term environmental justice strategies for: Anti-Displacement, Workforce Development, Climate Adaptation, Parks and Open Space, and Health. The Duwamish Valley Resilience team at SPU will collaborate closely with and help coordinate the Duwamish Valley Interdepartmental Team (IDT) together with the Office of Sustainability and Environment (OSE) and the Office of Planning and Community Development (OPCD). SPU also contributes to the salmon recovery work in the Green-Duwamish watershed and leads and coordinates city investments in salmon recovery in the Duwamish River basin. SPU funds a portion of the Duwamish Basin Steward who helps advance salmon recovery projects.

Since 2019, the related body of work has been funded almost completely by philanthropic support from the Lincoln Land Institute's Center for Community Investment (CCI), Robert Wood Johnson Foundation (RWJF), and the Seattle Foundation. Recent flooding events have amplified and accelerated the need for this nascent work. The next phase of work is being funded by the King County Flood Control District and a FEMA Building Resilient Infrastructure and Communities (BRIC) grant is pending. This early vision and concept development work in partnership with community will map out a path for future sea-level rise adaptation infrastructure, financing and funding for the infrastructure, and community capacity building.

Part 2. Targeted Commitments and Performance Measures

Major Milestones	Anticipated Outcomes	Timing
DWW CIP Base • Initiate construction of drainage/conveyance Ph 2 (• Initiate construction of the South Park Water Quality Facility (2030) • Develop approach for flood reduction and WQ improvement in Georgetown in alignment with King County led CSO efforts	• Flood mitigation • Water quality improvement	
DWW CIP Sediments		

• Initiate in-water Superfund cleanup of Duwamish River, beginning with the Upper Reach (Fall 2024)	Superfund sediment cleanup	2024-2032
DWW CIP – With supplemental budget request • S. Myrtle Street Drainage & Water Quality Project	Construction NTP	2028
Duwamish Valley Resilience *Note: milestones and outcomes rely on the securing external funding for 3 key positions to matrix from other departments* • Define and launch new interdepartmental structure • Develop shared vision with community for infrastructure and social resilience approaches • Preliminary design of SLR infrastructure • Pursue community wealth building strategies including workforce development, local procurement strategies • Draft a Duwamish Valley Master Plan, including land use/zoning, affordable housing, open space, shoreline master program and associated permitting. • Develop Funding and Partnership Strategy for Capital and Social Infrastructure • Support city-wide efforts to improve Chinook habitat through restoration projects including obtaining grant funding	• Cohesive community engagement • Emergency flood preparedness and response • Long-term sea-level rise resilience plan • Secured external funding	2030

Part 3. Financial Summary Note the "Totals" are just for the 6yr period shown

Baseline Budget

Program Title	**Duwamish Valley Resilience Investments ($000's)**						
Project Name	Various						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline O&M (non-labor – DV Resilience)	500	500	500	500	0	0	2,000
Baseline Capital – DWW Capacity & Water Quality	8,000	12,500	27,500	19,400	15,200	10,200	92,900
Baseline Capital – DV Superfund sediments work	14,800	9,800	9,800	16,700	17,400	14,400	83,000
Total Baseline	**23,300**	**22,800**	**37,800**	**36,600**	**32,600**	**24600**	**177,800**

Supplemental budget Request

	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
O&M -new FTE WQ facility O&M	100	100	100	100	300	300	1,000

Capital - South Myrtle Street Drainage & Water Quality	500	500	500	7,000	5,000	4,500	18,000
Total Supplemental Budget	600	600	5,100	7,100	5,300	300	**19,000**

Part 4. Capacity Plan to Deliver (Existing/Capital Only)

No proposed staffing adds are requested of SPU for the delivery of this work. However, the water quality infrastructure planned for delivery through this investment is beyond SPUs ability to maintain without additional staffing.

Part 5. Racial Equity Impact

The Duwamish Valley is ancestral home of the Duwamish Tribe and 5,600 people, of whom 42% are immigrants, 37% are Latinx, and 63% are people of color. Additionally, the lower reaches of the Duwamish River are prime sites for fishing relevant to Muckleshoot and Suquamish treaty rights, including the Endangered Species Listed, Chinook salmon. Most residents (72%) live in poverty. Residents disproportionately face social and environmental stressors; life expectancy is 13 years lower than Seattle's white, upper-income neighborhoods, and the Duwamish River Superfund site runs through the Duwamish Valley and its communities.

The work within this investment will advance environmental justice and equitable development in the area, reducing the recurrent damage and expense to this historically disinvested community.

Specifically with respect to the proposed addition of the South Myrtle Street Drainage & Water Quality Project, these investments will help keep the river clean-up project on schedule. Many of these residents rely on the river for recreation, economic opportunities, and as a source of food. Delays of the cleanup of the river would be unacceptable for the residents of Seattle, and more specifically, the residents of these adjacent neighborhoods.

Part 6. Alternatives and Options to Consider

SPU has previously explored options beyond building additional infrastructure with funding for the South Myrtle Street Drainage & Water Quality Project. SPU has been actively implementing a source control program within the Lower Duwamish Waterway since the early 2000s and has undertaken all feasible Best Management Practices within the S. Myrtle St and S. Garden storm drain areas to reduce contaminant loading to the river. However, samples indicate that contaminant loading remains elevated in the stormwater solids samples immediately adjacent to the outfalls and a physical intervention is recommended. Options analysis will identify roadway improvements and conveyance options to route stormwater to one or more small treatment systems in the study area.

Regarding the Duwamish Resilience Investments, the City has the alternative to do nothing, since responsibility for river flooding does not technically fall within SPU's domain. However, this path of action would result in complex and layered problems, including flood/system overwhelm risk for DWW infrastructure, increased risk of recontamination of the Duwamish River associated with flood events, and undue and inequitable burdening of residents and businesses in an EJ community with a history of public underinvestment.

6. Shape Our Water – Citywide and Focus Area Planning

SBP Focus Area	Stewarding Environment and Health
SBP Goals	Develop One Water Resilience from our watersheds to city to Sound.
SBP Strategy	Invest in strategic plans, projects, and programs that advance a holistic One Water approach.
Template Type	Initiative
SPU Branch/LOB	Drainage and Wastewater
Executive Sponsor	Ellen Stewart
Project Manager/Lead	Leslie Webster
Reporting Cadence	Annual
Funding	Current funding plus addition of 3 FTE .
Last Update	September 2023

Part 1. Summary of the Initiative

Over the past few years, SPU has been developing the Shape Our Water Plan – an integrated citywide plan for the next 50 years of drainage and wastewater investments in Seattle. Shape Our Water will include both long-term strategies and a near-term action plan that will guide SPU's future investments in policies, programs, and projects that improve the performance and resilience of our drainage and wastewater systems while optimizing social and environmental benefits, salmon habitat, for the City. Under this initiative, SPU will continue to track progress on completing the citywide Shape Our Water plan and the beginning of implementation. Funding for this has been - and will continue to be - included in the baseline budget.

Simultaneous to Shape Our Water development, SPU has been piloting and refining our approach to focus area planning. This initiative expands on the existing Shape Our Water initiative to address an immediate gap in resources to perform focus area planning in parallel with the Shape Our Water Plan to increase predictability in development and increase operational efficiency over time. This initiative will scale-up technical planning and community engagement in high priority focus areas, such as:

- Neighborhood drainage and sewer plans in OPCD's priority neighborhoods for community planning.
- System layout plans for areas that lack adequate sewer or drainage systems and that are expected to experience increased development over the next decade.
- Integrated stormwater and sewer plans in neighborhoods with a history of underinvestment and complex, present-day capacity and asset management challenges such as Georgetown and Rainier beach.
- Creek watershed planning to reduce tire dust pollutants (6PPD-Q).
- Creek culvert replacement strategy to sequence asset management investments and fish passage barriers removal in Seattle's urban creeks, including engagement with local Tribes and permitting agencies.

- Stormwater and sewer system improvement plans for SDOT's priority corridors for right-of-way investments.

Currently, three (3) full-time term-limited employees (TLEs) are supporting both citywide and focus area planning needs in the Drainage and Wastewater. This initiative will replace these temporary positions, providing stable and sustainable staff resources for this critical focus area planning work in the years ahead. This initiative will be resourced by three new staff with support from existing, repurposed Services budget. The costs to fund this initiative are shown in the table below:

Initiative Title	**Shape Our Water – Focus Area Planning ($000's)**	
	Per Year (2025-2030)	**TOTAL**
O&M Labor	538	3,227
Total Baseline	**538**	**3,227**

Part 2. 2025-2027 Commitments

Major Milestones	**Qtly Timing**
Document focus area planning approach and refine focus area planning tools	Q2, 2025
Complete first round of focus area plans (3-6 area plans) and transition to implementation	TBD, 2026-2027*
Initiate and complete second round for focus area plans	TBD, 2028-2030*

**Timing of plan completion will depend on scale and complexity of defined plan area. Plan schedules will be determined in Q4, 2025 when the charters for the selected plans are developed.*

Part 3. Racial Equity Impact

A racial equity framework was developed for the Shape Our Water Plan and is being used to inform focus area planning. Focus area plans will help SPU meet the goals of the Shape Our Water community vision. Community engagement associated with the development of focus area plans will center BIPoC voices and resource community members for their expertise and participation. Racial equity was incorporated into the citywide prioritization of sewer and stormwater challenges. Supporting this initiative will accelerate integrated, multi-benefit solutions to address high-priority stormwater and sewer challenges in neighborhoods with a greater share of disadvantaged communities.

Part 4. Climate and Sustainability Impact

Both Shape Our Water and focus area planning aim to increase the resilience and sustainability of Seattle's drainage and wastewater systems. Two of the goals of Shape Our Water are to 1) *invest in drainage and wastewater infrastructure that can adapt to future environmental*

challenges and build system resiliency - especially in areas most vulnerable to environmental hazards, and 2) *Treat all water as an essential resource and ensure it is managed in a sustainable and integrated way*.

Part 5. Affordability Impact

Affordability is a major driver of Shape Our Water and focus area planning. These integrated planning efforts identify investments that solve multiple drainage and wastewater challenges and align those investments with mobility, open space, and livability improvements. This means more value for SPU customers in the future. Furthermore, one of the stated goals of the Shape Our Water is for SPU to *provide accessible and affordable drainage and wastewater services to community members regardless of economic or housing status*.

Part 6. Alternatives and Options to Consider

If this initiative were not adopted, focus area planning resources would remain at their present level. Currently, the planning section has three (3) permanent positions focused on citywide planning and two (2) permanent positions focused on planning in priority geographic areas; one planning in uncontrolled CSO basins in compliance with NPDES permit requirements and the consent decree, and the other planning in urban villages. There are no resources for other area-based priorities for planning.

The lack of focus area planning would result in a less holistic approach to CIP projects. The CIP projects that move forward would take much longer to complete as they struggle to compensate for the lack of initial planning, and potentially cost more as well because partnering relationships are harder to develop in options analysis or design.

This initiative is scalable – in other words, more FTEs and associated professional services support could be added to accelerate the pace of stormwater and sewer plan development. Alternatively, fewer FTEs or professional services support could be added, resulting in a deceleration of plan development.

7. Water Supply Planning for the Next 50 Years

SBP Focus Area	Stewarding Environment and Health
SBP Goals	Develop one water resilience from our watersheds to city to Sound.
SBP Strategy	Invest in strategic plans, projects, and programs that advance a holistic One Water approach.
Template Type	Initiative
SPU Branch/LOB	Water
Executive Sponsor	Alex Chen
Project Manager/Lead	Julie Crittenden
Reporting Cadence	Annual
Funding	Baseline
Last Update	October 2023

Part 1. Summary of the Initiative

SPU assesses and plans for our customers and water supply needs frequently. We are in a period of particularly focused, long-term evaluation for 2023-2029 due to several projects. These projects include:

- Climate Change Hydrology Analysis
- South Fork Tolt Federal Energy Regulatory Commission (FERC) Re-licensing
- Cedar Falls Long-Range Plan
- Supply Alternatives Analysis

These projects are based on a framework of understanding 1) How much water we need; 2) How much water we have, especially in light of expected climate change impacts; and 3) How we will adjust. The results will provide important information for looking out 40-50 years and updating our Water System Plan, with the next plan due in 2029.

Part 2. 2025-2027 Commitments

Major Milestones	Qtly Timing
Updated climate change hydrology analysis	4Q 2024
Cedar Falls Long Range Plan recommendations	1Q 2026
Supply Alternatives Analysis	1Q 2026
South Fork Tolt Re-Licensing: Study Plan completed	1Q 2025
South Fork Tolt Re-Licensing: Final Study Report completed	4Q 2026
South Fork Tolt Re-Licensing: License application filed	2Q 2027

Part 3. Racial Equity Impact

- Proper planning will ensure our region and all customers have sufficient water supply.

- The planning work identified in this initiative includes tribal engagement, as our watersheds and water supply actions are in historical lands of several Salish Sea tribes.

Part 4. Climate and Sustainability Impact

Climate change, and expected changes in weather types and timing, are a major factor driving these long-term water supply and system plans. The intent of developing these plans is to adjust for climate change and to be prepared to continue providing water for people and fish (e.g., aquatic habitats) for decades into the future.

Part 5. Affordability Impact

Proper planning, especially focused on our existing supply and adequate water conservation actions, will help ensure our current water supplies will be adequate for decades and avoid the need to develop new supply. This keeps our rates more affordable.

8. Cedar and Tolt Watershed Resilience

SBP Focus Area	Stewarding Environment and Health
SBP Goals	Develop one water resilience from our watersheds to city to Sound.
SBP Strategy	Advance nature-based and community-centered climate adaptations and solutions.
Template Type	Initiative
SPU Branch/LOB	Water
Executive Sponsor	Alex Chen
Project Manager/Lead	Amy LaBarge
Reporting Cadence	Annual
Funding	O&M, CIP, grants
Last Update	9/29/2023

Part 1. Summary of the Initiative

This initiative protects the source supply watersheds of Seattle's drinking water system, which consist of 100,000 acres of forests that serve as the first filter for high quality drinking water provision and an array of other ecosystem goods and services. Climate change and associated threats of reduced snowpack, drought, extreme precipitation events, and wildfire have the potential to impact watershed ecosystem integrity, water supply, and drinking water quality.

Included in this initiative are ongoing programs and projects that are in place to continually develop resilience in source supply watersheds – the Cedar River and South Fork Tolt River Municipal Watersheds. These programs address watershed protection, wildfire risk management, forest ecosystem management, monitoring, and continuous improvement in all these areas. The **bolded elements** below indicate areas for continued investment.

Watershed Protection:

- Maintain watershed closure and security;
- Manage access and activities during high fire danger days to prevent human-caused wildfire ignitions;
- Maintain and improve watershed road networks to protect water quality and access in the face of extreme events;
- Maintain monitoring, inspection, and response programs to detect, prevent, and address multiple threats including sanitation, hazardous materials, and invasive species.

Wildfire Risk Management:

- Maintain preparedness to respond and suppress wildfires with qualified initial attack teams and **equipment**;

- Maintain partnerships and qualifications for suppression response – WA DNR, USFS, EOC;
- Prepare for **rapid post-fire response** and recovery to reduce erosion before first precipitation events and protect water quality, protect critical assets, monitor post-fire impacts, conduct ecosystem recovery to restore water quality and habitats;
- **Create defensible space** around critical assets and core roads to provide safe access and anchor points to aid fire suppression;
- Continue to assess changing risk and potential impacts to drinking water supply and mitigation efforts to ameliorate risk;
- Consider forest fuel treatments in the watershed landscape to reduce wildfire rate of spread and fire intensity to mitigate risk.

Forest Management:

- **Implement the Cedar River Watershed Forest Management Plan (2023)** to meet multiple objectives of water cycle regulation, old forest protection and development, climate resilience, tribal wildlife habitat objectives, and wildfire risk reduction;
- Implement the forest restoration programs in the South Fork Tolt Watershed Management Plan;
- **Monitor forest development and disturbance in municipal watersheds** and adapt management approaches to continuously incorporate climate change impacts.

Part 2. 2025-2027 Commitments

Major Milestones	Qtly Timing
Design and install Wildfire Risk Management **equipment**, including (1) water storage tanks in municipal watersheds to provide water sources for aerial suppression tactics while preventing aquatic invasive species introductions and (2) fire suppression equipment for the Tolt Watershed, depending on grant funding or available CIP/capital expense funds.	2025 Q4
Purchase and appropriately store materials for **rapid post-fire response**, including woodstraw™ and other products to immediately treat burned hillslopes to reduce erosion and protect water quality	2025 Q2
Create defensible space around critical assets in municipal watersheds including water supply infrastructure, workforce facilities, pipeline and penstock rights of way, depending on grant funding or available water funds.	2025 Q4 – 2027 Q4, depending on location
Implement the Cedar River Watershed Forest Management Plan (2023) to achieve multiple objectives as described in the plans (separate programmatic business case).	2025-2027 (though 2050)
Monitor forest development and disturbance in municipal watersheds and practice adaptive management.	2025-2027 (through 2050)

Part 3. Racial Equity Impact

These combined efforts reduce RSJ inequities in two ways:

1. Maintaining affordable essential services by preventing and/or reducing the risk of high consequence events that could present costly rehabilitation and restoration efforts;
2. Protecting and stewarding watershed ecosystems that provide resources of ecological and cultural significance to Tribes.

Part 4. Climate and Sustainability Impact

These efforts are central to maintaining and continually improving watershed resilience in the face of increasing threats posed by climate change. Protecting the source of drinking water for the Seattle region and maintaining preparedness in the face of increasing hazards is central to SPU's mission and holistically incorporates climate change mitigation and adaptation within nature-based systems. Maintaining vigilance, preparedness, response, and continued analysis and innovation in wildfire risk management is increasingly necessary with the longer, warmer, and drier seasons that are projected in the Pacific Northwest by climate models. Monitoring and managing the forests in the municipal watersheds as the first filters for high quality drinking water provision and habitat for an array of sensitive and threatened species are critical actions for maintaining sustainability and resilience in the face of climate change.

Part 5. Affordability Impact

Protecting and stewarding Seattle's mountain source watersheds carries forward a 130-year tradition for the Seattle Water System. It maintains affordability, especially with the Cedar system, by providing a pathway for filtration avoidance, thereby saving the ratepayers the cost of building filtration (potentially $1-2 billion avoided cost). The efforts included in this initiative represent proactive and reactive strategies that can reduce the likelihood and consequence of potentially catastrophic events, such as a large wildfire.

9. Upstream Legislative Strategies to Reduce Pollution and Waste

SBP Focus Area	Stewarding Environment and Health
SBP Goals	Develop one water resilience from our watersheds from city to sound. Advance zero waste circular economy.
SBP Strategy	Reduce water, materials, and carbon pollution.
Template Type	Initiative
SPU Branch/LOB	GM's Office
Executive Sponsor	Andrew Lee
Project Manager/Lead	Yuse, Morrigan, Sukhdev, Burrell
Reporting Cadence	Annual
Funding	Baseline
Last Update	October 2023

Part 1. Summary of the Initiative

SPU works with federal, state, and regional governments to advance legislation that reduces and ultimately prevents toxic chemicals, hazardous materials, and excessive waste from proliferating, ending up in the waste stream, and negatively impacting human health and the environment. SPU focuses on 'upstream' measures that prevent toxic chemicals, hazardous materials, and excessive waste from entering the economy in the first place, as opposed to later actions that simply react to the 'downstream' impacts.

In the context of our Drainage & Wastewater LoB, this means addressing emerging contaminants of concern, including PFAS, 6PPD-Q, PCBs, persistent bio-accumulative substances, and other chemicals found in stormwater and wastewater. These substances are harmful to human health and the environment.

- PFAS never break down (leading to their nickname as "forever chemicals") and bioaccumulate in humans and animals.
- 6PPD-Q is highly toxic to Coho salmon and other types of fish.
- PCBs are highly toxic and while they are prohibited from being commercially manufactured, a loophole for "inadvertently generated PCBs" means that these chemicals continue to be found in products like yellow paint.

Many chemicals are available and used in Seattle residents' day-to-day lives, perhaps without even knowing it. Scientists learn more about the health and safety risks of chemicals all the time, and many are found to be toxic over time. While these chemicals are ending up in our stormwater and wastewater, that is not where they originate. In Washington they are primarily found in building materials and consumer products. It is a top priority for SPU to hold companies that are distributing these chemicals responsible for their actions and prevent them from continuing to market harmful chemicals. Avoiding introducing these products into the waste stream in the first place is the most affordable way to address toxic pollution. As we build

a circular economy in Seattle, we must also make sure that the materials we are 'circulating' (recycling, reusing, repurposing) in our economy do not contain harmful chemicals. **We will work to pass federal, state, or local legislation that does any of the following:**

1. Bans harmful chemicals from production, inclusion, or sale in products;
2. Requires producers to find safer alternatives to toxic chemicals;
3. Holds producers financially accountable for producing toxic chemicals;
4. Anything else to reduce the amount of toxic chemicals from entering stormwater or wastewater.

We will work to secure federal, state, or local funding that does any of the following:

1. Funds projects and initiatives to remove toxic chemicals like PCBs from historic sources;
2. Raises public awareness about hazards of chemicals in consumer products;
3. Funds research into safer alternatives or mitigation of chemicals.

One excellent example is Washington's Producer Responsibility program for pharmaceuticals. Before the program was established, residents did not have a way to properly dispose of their unused medications, leading to commonly flushing them down the toilet. Drugs ending up in wastewater is hazardous to public health and the environment. In response, the legislature tasked pharmaceutical companies (the producers of drugs) with taking back their product and disposing of them safely. SPU supported this effort and continues to support legislation like this.

There are many opportunities to reduce waste and carbon pollution from a Solid Waste perspective. Washington State has several Extended Producer Responsibility (EPR) Programs which shift the burden of responsibility for disposing of hazardous materials like fluorescent lightbulbs and paint onto producers of those products. These programs help keep our wastewater stream cleaner while also increasing recycling and reducing waste. As part of our zero-waste, one water mission, SPU supports EPR programs, including but not limited to: light bulbs, sharps, appliances, and paper and packaging. **Government relations staff, policy staff, and leadership will work with state legislators and collaborate with other levels of government to extend, expand, and/or establish producer responsibility programs.** SPU supports other legislation that reduces waste including right to repair and product bans that extend the life of existing items or removes problematic materials from the waste stream.

Across each of these upstream legislative approaches, we will put pressure on producers and industry groups to move towards easier to recycle, less toxic materials.

Part 2. 2025-2027 Commitments

Major Milestones	Qtly Timing
Implement legislative strategy on 6PPD-Q	2030
Implement legislative strategy on PFAS	2030
Pass legislation to reduce and divert solid waste from landfills	2030

Part 3. Racial Equity Impact

Data shows that historically marginalized populations including Black, Indigenous, and People of Color as well as low-income families are frequently exposed to more toxins, making addressing contaminants of concern both a climate justice and environmental justice issue.

Producer Responsibility Programs include additional education and outreach to improve recycling services for underserved communities. Programs are also structured to provide better, more accessible service for all households.

Part 4. Climate and Sustainability Impact

Increasing recycling reduces reliance on virgin products which have a higher carbon footprint. For paper and packaging specifically, recycling avoids three tons of climate pollution for every ton recycled. EPR programs also aim to reduce the use of excessive packaging and other products through tiered fee structures. This further reduces reliance on virgin products.

Part 5. Affordability Impact

Upstream legislative solutions like producer responsibility shifts the costs of dealing with hazardous and difficult-to-manage materials onto producers. Right now, local governments and utilities are grappling with the expense and difficulty of managing these materials. Reducing costs of the system will keep SPU's rates more affordable. Similarly, bans or limits on toxic chemicals in products can reduce the cost of managing the negative impacts of these substances in our waste stream.

For example, 6PPD-Q is a byproduct of a chemical used in tires and is therefore found on roads. Right now, the City's tools for preventing 6PPD-Q from running into streams are limited, expensive, and have marginal benefits on the large scale (i.e. installing green stormwater infrastructure, road sweeping). With upstream solutions like a ban on 6PPD, this toxic chemical would be significantly less prevalent on our roads, and we could focus resources elsewhere.

10. 2030 Carbon Neutrality and Sustainable Operations

SBP Focus Area	Stewarding Environment and Health; Strengthening Our Utility's Business Practices
SBP Goals	Develop One Water resilience from our watersheds to city to Sound; Advance Zero Waste Circular Economy; Manage assets and risks optimally; Foster a culture of shared leadership, continuous improvement, and innovation.
SBP Strategy	Reduce materials and prevent water and carbon pollution; Support a continuous improvement and innovation culture
Template Type	Initiative
SPU Branch/LOB	General Manager's Office – Corporate Policy & Planning
Executive Sponsor	Andrew Lee
Project Manager/Lead	Danielle Purnell
Reporting Cadence	Annual
Funding	Requesting $100k/year in O&M and $350k/year in Capital
Last Update	September 2023

Part 1. Summary of the Initiative

The Utility is facing a challenging future as it responds to the impacts of climate change and works to reduce greenhouse gas emissions in operations. Driven by our own motivation to steward the environment and public health and strengthen our utility's business practices, as well as multiple Executive Orders focused on climate mitigation, SPU has laid out long-term climate mitigation, energy management, and resource conservation goals for our own operations, facilities, and activities. SPU aims to be carbon neutral by 2030 and resource efficient in our operations, while actively exploring opportunities to generate renewable energy and other innovations. SPU also has an obligation to approach procurement and purchasing in an environmentally sustainable way.

This work will be led and coordinated by the Corporate Policy & Planning team in partnership with SPU Logistics. The initiative will:

- Develop and implement SPU's Renewable Energy Strategy
  - In-Line Hydropower (producing renewable energy from excess pressure in our drinking water pump systems)
  - Solar power (installing solar panels on appropriate SPU facilities)
  - Sewer Heat Recovery (capturing heat energy from sewer pipes to heat or cool buildings)
- Enhance coordination and understanding of water-energy nexus opportunities with Seattle City Light including joint conservation opportunities for Seattle residents and businesses
- Lead and coordinate SPU's Green Purchasing, Procurement, Contracting implementation strategy

  - SPU purchases (from office supplies to flatware used for meetings/events to office furniture)
  - Capital projects (the materials going into our infrastructure, our construction processes)
  - End-of-life asset management (what happens to our equipment, infrastructure, and buildings when they reach end of life)
- Develop projects and programs that drive resource conservation in our operations
  - Energy efficiency / fuel efficiency assessments and implementation
  - Water conservation and reuse
  - Waste prevention
- Support the delivery of SPU's Fleet and Facility Electrification Strategy
  - Green New Deal Building Electrification
  - Green Fleet Electrification / Emissions reductions
  - Additional Electrification Projects (e.g. Leaf blowers)
- Report and track greenhouse gas emissions, energy usage, and SPU's *carbon neutral by 2030* target
  - Develop energy, fuel, water, waste dashboard + benchmark reports for operational/ frontline staff and leadership
  - 2024 to 2030 annual operational GHG inventory reports
  - SPU Climate Action Roadmap: Reporting on pathways to SPU's Carbon Neutral by 2030 target
- Research carbon offset market and identify SPU's needs for carbon offset purchases
- Pursuit of external funding and partnerships to support these activities (Climate Commitment Act, Clean Fuel Program, IRA, etc.)

Part 2. 2025-2027 Commitments

Major Milestones	Qtly Timing
2024 GHG Inventory Annual Reporting Complete	Q3 2025
2025 GHG Inventory Annual Reporting Complete	Q3 2026
2026 GHG Inventory Annual Reporting Complete	Q3 2027

Part 3. Racial Equity Impact

- **Equity is a strong motivating factor behind SPU's efforts around climate mitigation -** climate impacts in Seattle will disproportionately burden already marginalized communities, and SPU should fulfill its civic responsibility to lead by example in reducing emissions
- **The identification, prioritization & implementation of all energy efficiency, renewable energy, electrification, resource conservation, green purchasing & procurement, and other emissions reductions efforts should take an equity lens** in considering potential impacts to different groups, and ensuring stakeholders are engaged appropriately. Race and Social Justice (RSJ) assessments will be completed as part of the initiation phase of

programs/projects and if it is determined that the RSJ impact will be significant, we will apply the Racial Equity Toolkit to reduce the RSJ impacts. For example, this work will focus on SPU facilities located in areas that are already experiencing poor air quality.

- **Actions that can support marginalized voices and directly benefit target communities** should be prioritized (e.g., blue and green job programs, contracting with WMBE organizations). This position is expected to work closely with the SPU Economic Opportunities Advisor/WMBE Advisor position and SPU Contracts and Procurement Division to advance equity in green procurement opportunities.

Part 4. Climate and Sustainability Impact

The primary purpose of this initiative is to mitigate the climate and environmental impacts of our operations. By reducing the greenhouse gas emissions in our operations, effectively finding ways to conserve energy and water, and preventing waste, this initiative will make operations more sustainable. In addition, investments in renewable energy and efforts to 'green' our purchasing and procurement processes will both have positive environmental impacts for Seattle.

Part 5. Affordability Impact

Efforts that aim to manage our resource consumption (i.e. water, energy, materials) will result in financial savings for the utility (e.g. electricity, fuel and gas bills reduced due to energy efficient efforts, reduction in electricity bills due to renewable energy net metering). Managing the costs of our operations and the effective management of our assets contributes to ratepayer affordability. In some cases, projects and investments may result in increased costs initially or in a transition period (e.g. upfront investment in renewable energy installation, increased electricity bills due to fleet and facility electrification) but we expect these to be offset by reductions in other costs (e.g. fossil gas bills, fuel bills) and new sources of revenue (e.g. electricity generation).

11. Waste Prevention and Diversion

SBP Focus Area	Stewarding Environment and Public Health
SBP Goals	Advance Zero Waste
SBP Strategy	Reduce Materials and Carbon Pollution
Type	Investment
SPU Branch/LOB	Solid Waste/Solid Waste Planning & Program Management
Executive Sponsor	Jeff Fowler
Project Manager/Lead	Dependent on Project/Pilot (see below)
Reporting Cadence	Quarterly or Annually (Dependent on investments)
Funding	Dependent on Project/Pilot (see below)
Last Update	September, 2023

This investment category is comprised of multiple programs in three grouping defined by funding status:

Sub-Investments Include:

A. Food Waste Reduction & Equitable Compliance Enforcement
B. Reuse Seattle Investment – Reusable Foodservice Ware Initiative

Placeholder Funding Sub-Investment Include:

C. Waste Prevention Strategic Plan Support & Implementation

Grant-dependent Sub-Investments Include:

D. Construction & Demolition (C&D) Reuse Events at Transfer Stations
E. C&D Salvage Lumber Warehouse Support

Overall Summary: The five programs described below continue the City's investment in Diverting solid waste from disposal and increasing our investment in Waste Prevention, which is key to achieving our Zero Waste goal and reducing materials and carbon pollution. The first two are priority investments that focus on the 1) Food Waste Reduction & Equitable Compliance Enforcement and 2) Reuse Seattle's Reusable Foodservice Ware Initiative, the third highlights where we are going as we complete the Waste Prevention Strategic Plan over the next two years and in move into implementation in approximately 2026, which may require new investments, and the last two relate to C&D Reuse Events and C&D Salvage Lumber Warehouse Support, which are dependent on the receipt of grant funding, both state and federal.

SUB-INVESTMENT A: FOOD WASTE REDUCTION & EQUITABLE COMPLIANCE ENFORCEMENT

<u>Part 1. Summary of Sub-Investment A</u>
Project Leads – Solid Waste Planning & Program Management (SWPPM) Staff (Cross-divisional)

Preventing food from being wasted or landfilled is the single most impactful step that SPU can take to mitigate climate change.[1,2] In fact, food is the second largest contributor (23.7%) to consumption-based greenhouse gas (GHG) emissions in Seattle after transportation (30.9%).[3] In addition, SPU must meet food waste-related goals and commitments laid forth in the SPU SBP (2021-2026), the 2022 Solid Waste Plan, the City of Seattle Climate Action Plan (2013), and the City of Seattle Food Action Plan (2022), as well as comply with the new WA State Organics Management Law (HB 1799 2022). This state law aims to cut landfill-disposed organic material by 75% by 2030 compared to 2015 levels and includes phased requirements for services and programs to divert food waste from landfill disposal and increase food waste prevention and food rescue.

Although Seattle already has policies in place prohibiting food in the garbage and programs to support food waste prevention and diversion, food waste remains the single largest component in Seattle's residential and commercial garbage streams and the majority of it is edible food waste.[4,5] Seattle residents are currently only diverting about one-third of all food waste to the compost stream, while the other two-thirds are going to the garbage, which is in direct violation of City code. In addition, in SPU's 2022 Commercial Garbage Waste Composition Study, food waste accounts for nearly 20% of garbage generated by businesses, with 71% of that food waste being edible.

Therefore, SPU needs further investment to meet its established commitments, support the implementation of state law, and achieve meaningful food waste reduction in Seattle. This Investment supports SWPPM staff to deploy a coordinated and holistic approach to food waste prevention and diversion focused on compliance enforcement and behavior change. This investment will also be used in the following ways, creating a cross-divisional, coordinated team of staff and consultants to address the above needs:

- **Hire an FTE Solid Waste Planning & Development (SW P&D), Spec II** to:
  - Focus on the largest generators of food waste in the commercial and residential sectors, including customers with garbage compactors;[6] and,
  - Carry out compliance audits and enforcement of the City's ban on food waste disposal (SMC 21.36.082-083).

  The role of this SW P&D, Spec II is essential to make SPU's enforcement of solid waste requirements equitable, as SPU currently cannot evaluate garbage compactors with current staffing and resource levels; therefore, we aren't able to assess these customers'

[1] Project Drawdown, https://drawdown.org/solutions/table-of-solutions
[2] U.S. EPA, From Farm to Kitchen: The Environmental Impacts of Food Waste, November 2021.
[3] City of Seattle, Seattle Communitywide Consumption-based GHG Emissions Inventory, Prepared by EcoDataLab and Stockholm Environment Institute, February 2023.
[4] Seattle Public Utilities, 2020 Residential Waste Composition Study, Prepared by Cascadia Consulting Group.
[5] Seattle Public Utilities, 2022 Commercial Waste Composition Study, Prepared by Cascadia Consulting Group. (Unpublished Draft)
[6] Garbage compactors are used by some of the largest multifamily and businesses. While only 8% of multifamily buildings use them, they account for 40% of all apartment units.

compliance. Audits will be used to identify non-compliant customers, and enforcement-backed notifications will connect customers to existing SPU outreach programs.

- **Hire a TES SW P&D, Spec II** to:
  - Manage the consultant hiring;
  - Manage the consultant contract(s); and,
  - Assist in the work with both the residential and commercial sectors.

- **Hire Consultants** to:
  - Conduct research into the barriers and motivations for food waste prevention and diversion in the Seattle residential sector, with a special focus on the multifamily sector;
  - Assist in the design and implementation of multiple campaign tactics based on research to improve both food waste prevention and diversion;
  - Evaluate the success of those tactics;
  - Assist in the scaling up of commercial-sector engagement and action related to food waste prevention through partnerships, campaigns, and sector-specific technical assistance;
  - Help with the development of measurement and evaluation tools to track prevention progress across commercial sectors;
  - Assist with commercial sector compliance audit effort; and,
  - Support the coordination and management of associated datasets, process flows, and field activities.

Part 2. Targeted Commitments and Performance Measures for Sub-Investment A

Major Milestones	Anticipated Outcomes	Timing
Scoping & Staffing	• Hire SW P&D, Spec II to perform compliance audits and enforcement work. • Hire TES SW P&D, Spec II to manage behavior change research and campaign, including managing the consultant contract. • Hire consultants to support behavior change research and campaigns, commercial sector technical assistance, and compliance audits.	2025
Preliminary Compliance Activity	• Pilot compactor compliance audits and enforcement work. • Conduct follow-up with stakeholders and update approach based on feedback. • Determine how frequently each building needs to be re-audited.	2025

Major Milestones	Anticipated Outcomes	Timing
Broad Compliance Activity	• Conduct audits in all buildings with garbage compactors. • Track selected compactors from source of origin to transfer stations, conducting spot checks and waste composition reviews. • Conduct re-audits of sites on a cycle TBD.	2026 onward
Targeted Commercial Engagement	• Scale up sector-specific engagement and partnerships to reach large generators of food waste. • Provide technical assistance to support food waste prevention actions.	2025-2028
Behavior Change Campaign Research & Planning	• Research the primary barriers and motivations for residential food waste reduction. • Develop campaign tactics to increase food waste prevention and diversion.	2026
Campaign Implementation	• Implement recommended behavior change campaign tactics across the City or for targeted audiences per research recommendations.	2027-2028
Evaluation	• Conduct waste audits and other research to evaluate the success of the implemented tactics and programs and determine future actions.	2029-2030

Part 3. Financial Summary of Sub-Investment A

Program Title	**Food Waste Reduction & Equitable Compliance Enforcement ($000's)**						
Project Name	Various						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline – O&M – Solid Waste P&D Spec II	173	179	186	201	209	218	1,166
Baseline - O&M – TES P&D Spec II	161	167	174	181	188	195	1,066
Baseline – O&M – Consultant Services, etc.	300	320	340	360	380	400	2,100
Total Baseline	**634**	**666**	**700**	**742**	**777**	**813**	**4,332**

An investment that succeeds in reducing food waste through both prevention and diversion will ultimately help our customers save money and provide a significant return on investment. Global studies show for every $1 invested in prevention, businesses recover $7 in return. Consumers are currently estimated to waste 25% of the food they purchase, so can realize substantial monthly savings on food bills when they prevent food from going to waste.

Additionally, as SPU customers prevent or divert more food waste from the garbage, it is expected that their monthly solid waste bills can potentially decrease if they are able to downsize their garbage container size or pick-up frequency.[7] Finally, given that food waste makes up a significant portion of the garbage generated by both Seattle residential and business customers, reducing the amount of food waste being placed in the garbage may reduce SPU's long-term disposal costs.

One option for covering the cost of hiring a permanent Solid Waste P&D, Spe II position is to increase the garbage rates specifically for customers with garbage compactors. Currently, SPU's garbage collection rates offer a large financial incentive for customers to use garbage compactors, and even with a modest rate increase, compactor rates would likely remain significantly lower than dumpster rates. While compactors are a good solution for many buildings due to space and access constraints, SPU needs to be able to audit them to be equitable with respect to enforcement of solid waste compliance requirements and incorporating the cost of those audits into the compactor service rates would be a fair way to pay for that service need.

Part 4. Capacity Plan to Deliver (Existing/Capital Only) Sub-Investment A

While SPU currently has staff working on both residential (Single-family and Multifamily) and commercial customer outreach, educational, and technical assistant needs involving organics generally, along with staff that conduct inspections, we do not currently have resources dedicated specifically to this area of food waste reduction and equitable compliance enforcement. Some of the resources currently dedicated to the *Love Food, Stop Waste* program, as well as other current food reduction education efforts would be merged into this effort, supporting the holistic and cross-divisional approach to this issue.

Part 5. Racial Equity Impact of Sub-Investment A

The primary climate pollutant associated with food waste, methane, is a short-lived greenhouse gas whose impacts are associated with the most immediate impacts of climate change. To strategically reduce these most immediate impacts while longer-term strategies are taking place, states like CA and WA are requiring increased diversion of food waste from landfills and prevention of edible food waste. Communities of color and economically disadvantaged communities are recognized as those most affected by climate change, and we need to take action to protect these communities from the effects of climate pollution. Moreover, we know from our waste composition studies that multifamily residents are experiencing the most challenges in diverting food waste. We also know that economically challenged residents are more likely to live in multifamily housing. This project will center on environmental justice and helping those who need it most.

[7] SPU's collection rates are set up to incentivize diversion, hence customer's solid waste monthly charges are mainly due to garbage collection (recycling collection is embedded in the garbage collection rates and provided to customers at no additional charge and food/yard waste collection is affordable).

In addition, SPU needs to equitably enforce solid waste requirements. Currently, SPU does not have a mechanism to audit customers with garbage compactors, only customers with garbage dumpsters are audited. As a result, customers with garbage compactors receive preferential treatment on two fronts: 1) they pay much less for garbage collection than customers with dumpsters, and 2) they are not subjected to solid waste compliance evaluation audits and subsequent enforcement action.

Part 6. Climate and Sustainability Impact of Sub-Investment A

As noted in Sub-Investment 1 – Part 5, the primary climate pollutant associated with food waste, methane, is a short-lived greenhouse gas whose impacts are associated with the most immediate impacts of climate change. Methane has more than 80 times the warming power of carbon dioxide over the first 20 years after it reaches the atmosphere. The diversion of food waste from landfills and prevention of edible food waste is a critical element to managing our impacts on the climate and promoting sustainability.

Part 7. Affordability Impact of Sub-Investment A

As noted in Sub-Investment 1 – Part 5, SPU does not have a mechanism to audit customers with garbage compactors, only customers with garbage dumpsters are audited – creating an inequitable system for those with dumpsters. Customers with garbage compactors receive preferential treatment on two fronts: 1) they pay much less for garbage collection than customers with dumpsters, and 2) they are not subjected to solid waste compliance evaluation audits and subsequent enforcement action. We also know that economically challenged residents are more likely to live in multifamily housing with dumpsters.

Part 8. Alternatives and Options to Consider for Sub-Investment A

- **Proposed Investment above:** Implement a strategic and holistic approach to reduce food waste with the additional resources described above in detail, which is needed to scale and sustain activities City-wide using equitable and effective tactics.
- **Status quo:** Continue with our current programs, which are not resourced at a level to enable comprehensive and equitable engagements with Seattle residents and key commercial sector generators. This will jeopardize SPU's ability to comply with state law and to follow through on its goals and commitments related to reducing food waste and realizing climate change mitigation. Specifically, regarding food waste diversion, we believe that the status quo poses risk of failing to make meaningful progress, as the sector most challenged with food waste diversion is multifamily, where most of the expected 250,000 new residents arriving in the next 20 years will live.

SUB-INVESTMENT B: REUSE SEATTLE – REUSABLE FOODSERVICE WARE

Part 1. Summary of Sub-Investment B

Project Leads – SWPPM Staff, with support from Staff in Corporate Policy

In 2021, SPU launched Reuse Seattle (www.reuseseattle.org), a city-led initiative to help Seattle move from single-use to reusable foodservice ware. This initiative has multiple benefits for SPU customers: it significantly reduces the amount of waste and associated environmental impacts

generated from foodservice activities; better facilitates food waste diversion in foodservice settings; and, reduces the likelihood of contamination in both the recycling and organics streams. In certain applications, transitioning to reusable foodservice ware can result in significant cost savings for businesses over time. Reusable foodservice ware systems can also contribute to economic development, creating local jobs and supporting local businesses. SPU has already committed to working to support the transition from single-use to reusable foodservice ware in Seattle under the 2022 Solid Waste Plan and the City of Seattle Food Action Plan (2023). Reuse Seattle is a strategic initiative in SPU's work to help transition Seattle to a more circular economy and achieve Zero Waste.

Interest and funding for reusable foodservice ware systems is growing rapidly, and SPU is attracting substantial attention for our leadership and investment in this area. We anticipate that SPU, through the Reuse Seattle initiative, will be able to secure outside funding in the coming years to support a range of activities under this initiative. For example, we have already secured $225,000 in funding from the Seattle Office of Economic Development (OED) for the 2023-2024 period to support the implementation of a reuse rebate program to help Seattle foodservice businesses cover the upfront costs of replacing single-use items with reusable alternatives. Additionally, we are aware of multiple federal, state, and private sector funding opportunities that will become available to support initiatives like Reuse Seattle in the next few years.

However, to take advantage of this enormous potential, SWPPM needs dedicated staff support to secure and oversee these funds, carry out and manage funded activities, and serve as a liaison to and nurturing the relationships with our Reuse Seattle partners. To date, the Reuse Seattle initiative has been supported using a portion of the time of the Commercial Recycling & Composting Program Manager, two Strategic Advisors (Circular Economy and Waste Prevention), and an additional temporary staff support of a 0.5 TES, which sunsets in mid-2024. In addition, Reuse Seattle received temporary supplemental funding added to the Green Business Program budget for the 2021-2022 and 2023-24 budget cycles that have supported consultant services to help carry out activities.

This Investment will provide a dedicated full-time TES SW P&D, Spec II to support Reuse Seattle for the 2025-2027 timeframe.

Part 2. Targeted Commitments and Performance Measures for Sub-Investment B

Major Milestones	Anticipated Outcomes	Timing
Staffing & Funding	• Hire a TES SW P&D Spec II to support Reuse Seattle Initiative • Pursue and secure external funding to provide additional support for Reuse Seattle activities	2025
Implementation	• Carry out and manage Reuse Seattle activities, such as: ▫ Extension and expansion of Reuse Rebate Program (currently funded by OED) ▫ Development and support of public place collection network ▫ Targeted engagement and support for reuse at special events	2025-2027
Evaluation	• Assess and quantify impact of Reuse Seattle initiative • Develop a need/value proposition for staff support. • Make recommendations for staffing and/or investments levels in future years	2026-2027

Part 3. Financial Summary of Sub-Investment B

Program Title	**Reuse Seattle – Reusable Foodservice Ware Initiative ($000's)**						
Project Name	Various						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline O&M - TES, P&D Spec II	161	167	174				502
Baseline – Capital	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Baseline	**161**	**167**	**174**				**502**

Part 4. Capacity Plan to Deliver (Existing/Capital Only) Sub-Investment B

The Reuse Seattle TES employee will have access to limited funding to deliver the program under the Green Business Program non-labor budget. Additional funding for program delivery is anticipated to come from multiple federal, state, and private sector funding opportunities. Funding for the TES is anticipated to come from half from the current base budget (i.e., ending of the current 0.5 TES working on WP Strategic Plan) and the other half from new investment.

Part 5. Racial Equity Impact of Sub-Investment B

Through Reuse Seattle, SPU is committed to advancing a vision that brings reusable foodservice ware to residents and businesses in all parts of our community and we are committed to ensuring that our approach prioritizes reuse systems that are equitable in access and affordability. Without SPU leadership in this area, reusable foodservice ware systems may

emerge that are available only to those who can afford to pay a premium, and as a result may not equitably serve Seattle's minority-owned businesses or may exclude certain neighborhoods or communities.

Part 6. Climate and Sustainability Impact of Sub-Investment B

Reusable foodservice ware is designed to be used multiple times, for its original intended purpose, as part of a dedicated system for reuse. When scaled effectively, reusable systems offer smaller material and emissions footprints compared to traditional single-use foodservice ware. Through Reuse Seattle, SPU is committed to advancing a vision that brings reusable foodservice ware to residents and businesses in all parts of our community and we are committed to ensuring that our approach prioritizes reuse systems that are equitable in access and affordability. Without SPU leadership in this area, reusable foodservice ware systems may emerge that are available only to those who can afford to pay a premium, and as a result may not equitably serve Seattle's minority-owned businesses or may exclude certain neighborhoods or communities.

Part 7. Affordability Impact of Sub-Investment B

As noted in Sub-Investment 2 – Part 5 above, Reuse Seattle, SPU is committed to advancing a vision that brings reusable foodservice ware to residents and businesses in all parts of our community in an equitable and affordable manner. SPU's leadership in this area, is critical to ensure that reusable foodservice ware systems emerge that are available and affordable to all, and that Seattle's minority-owned businesses or residents from certain neighborhoods or communities are not excluded.

Part 8. Alternatives and Options to Consider for Sub-Investment B

- **Proposed Investment above**: Add functional equivalent of 0.5 TES SW P&D, Spec II to expand SPU's capacity to advance and grow the Reuse Seattle Initiative.

- **Status quo**: Lose 0.5 TES mid-2024, who currently provides support to Reuse Seattle. As a result, remaining staff will have diminished capacity to support transition from single-use to reusable foodservice ware and SPU will risk missing the opportunity to take advantage of the multiple federal, state, and private sector funding opportunities that will become available to support initiatives like Reuse Seattle in the next few years. In addition, the reduction in waste generation that a reuse economy promises will be take significantly longer.

SUB-INVESTMENT C: WASTE PREVENTION STRATEGIC PLAN SUPPORT & IMPLEMENTATION (PLACEHOLDER FUNDING)

Part 1. Summary of Sub-Investment C

Project Lead – SWPPM Staff

SPU is an internationally recognized leader in recycling and composting, having worked for decades to build a strong diversion ethic for recyclables and organics in Seattle. As work

continues to maintain and grow that ethic and associated behaviors, SPU is looking to a similar leadership role with significant benefits by building a comparable ethic of waste prevention in Seattle. Waste prevention (WP) is widely recognized as the cornerstone to addressing waste and its impacts, yet there have been relatively few resources invested in cohesive planning and programs by Seattle or other governments. There is an urgent need for Seattle to lead on WP. WP as a key strategy for SPU is particularly important as we face challenges with changing recycling markets and issues around the proliferation of single-use plastics. It's also the most effective way for us to combat climate change within the materials management field.

In Seattle's 2022 Solid Waste Plan Update: Moving Upstream to Zero Waste, SPU has highlighted WP as a key priority. By end of 2025, our objective is to have a well-formulated WP Strategic Plan and Implementation Plan in place that clearly defines:

- WP goals, prioritization criteria, and metrics that reflect community interests;
- WP program and policy priorities that will allow SPU to most effectively leverage its unique role to amplify existing WP resources, support new community-led solutions, incentivize WP, and reduce or eliminate barriers to preventing waste; and,
- Strategies and tools to measure success.

Beginning in 2026, SPU aims to conduct ongoing WP Strategic Plan implementation, oversight, and measurement to monitor progress towards achieving our established goals.

The current SPU Waste-free Community Grants are an example of a program that is tied into the outcomes of the WP Strategic Plan recommendations. Based on the results of the WP Strategic Plan, the grant program may then be canceled with funds and staffing reallocated to other priorities or potentially expanded or modified to better reflect community needs.

To make progress on WP in Seattle and become a national leader, SPU will need additional FTE and non-labor resources allocated to the implementation of the WP Strategic Plan recommendations. While we are not able to know specific budget and staffing needs until the WP Strategic Plan is complete, we can use knowledge from our current WP programs and what other jurisdictions are doing to provide an estimate.

For example, much of the opportunity for expanding WP in Seattle will likely involve investing in community-led solutions through a grant program similar to the Waste-free Community Grant Program we are currently running or other types of investments. SPU's current Waste-free Community Grants Program funds $200,000 in awards spread over 2-years, averaging $100,000 annually with $40,000 maximum per award. We received 44 applications for the 2023-2025 grant cycle for a total request of $1.5 million. Examples of investment opportunities from this grant cycle include:

- Test reusable packaging options for product shipping and delivery
- Establish a community hub to provide a suite of complementary WP services, such as a tool library, repair space, and second use building supplies store
- Identify solutions and infrastructure for the repair and reuse of uniforms

- Provide culturally relevant WP education and resources for immigrant and refugee communities
- Install water refill stations to reduce single-use water bottles
- Collect, repair, and refurbish damaged furniture for donation to recent immigrant and low-income families
- Expand apps that help people and organizations share outdoor gear and other materials
- Grow small businesses that upcycle textile waste into new quality products

This grant program not only supports WP efforts and innovations but invests in our community in ways that support innovation and job creation – going directly to SPU's vision of Community-Centered. $100,000 annually is not adequate to meet community needs and we must decline many promising WP investment opportunities. Other jurisdictions offer larger funding amounts for similar grant efforts, such as $300,000 annually for King County grants, $800,000 annually for Alameda County (CA) grants, and $2 million annually for Portland Metro grants.

In addition to direct investment, we anticipate there will be other roles SPU is well positioned to take on to support community-led solutions to WP. For example, promoting WP resources available in the community, convening stakeholders to solve challenges and leverage resources, and developing new policies.

Based on the above, we anticipate implementation of the WP Strategic Plan will require an additional 1.0 FTE P&D, Spec II and additional funding for grants and services from 2025-2030.

Part 2. Targeted Commitments and Performance Measures for Sub-Investment C

Major Milestones	Anticipated Outcomes	Timing
WP Strategic Plan	• WP goals, prioritization criteria, metrics, and measurement and evaluation approaches that guide how we prioritize resources for WP moving forward	2024
WP Implementation Plan	• Specific short-term and long-term WP program and policy priorities to help SPU achieve the goals and metrics identified in the WP Plan	2025
Measurement tools	• Tools, such as models, surveys, etc. that will help SPU measure progress towards the WP Strategic Plan goals and metrics	2025
WP Strategic Plan collateral and outreach	• Videos, graphics, and other communication tools developed and shared with the community describing the WP Strategic Plan	2025
2025-2027 SPU waste-free community grants	• Funding awarded to support community-led WP solutions	2025
P&D, Spec II hired	• Staff hired to support the implementation of the WP Strategic Plan implementation starting in 2026	2025 - 2026

Major Milestones	Anticipated Outcomes	Timing
Baseline measurement	• Baseline established to measure against for assessing progress towards the WP Strategic Plan goals and metrics	2026
Priority WP program and policy Implementation	• Development and implementation of the program and policy priorities identified in the Implementation Plan	2026-2030
Ongoing measurement	• Measure annual progress towards the WP Strategic Plan goals and metrics	2027-2030

Part 3. Financial Summary of Sub-Investment C

Program Title	**Waste Prevention Strategic Plan Support & Implementation ($000's)**						
Project Name	Various						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline – O&M – FTE SW P&D, Spec II		179	186	201	209	218	993
Baseline – O&M – Services	150	300	350	400	450	500	2,150
Baseline –Capital	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Baseline	**150**	**479**	**536**	**601**	**659**	**718**	**3,143**

Assumptions:
- 4% annual inflation
- 1.0 FTE SW P&D, Spec II (expenses starting in 2026)
- $150,000 in 2025 to support the development of the Implementation Plan and measurement and communication tools
- $300,000 in 2026 ($100K to supplement baseline measurement + $200K for priority program/policy development)
- 2027 reflects ramping up the implementation of priority programs and policies; 2028-2030 reflect full implementation

Most of the requested funds will be reinvested in the community through grant funding, promoting, or otherwise supporting community-led solutions to WP. As evidenced in SPU's Waste-free Community Grants Program, reinvesting in the community creates jobs, helps small businesses grow, and helps customers save money through activities such as buying less, reuse, repair, repurpose, and sharing resources in the community. SPU currently allocates a 1.0 FTE P&D, Spec Sr. to manage the WP Strategic Plan development effort and the Waste-free Community Grants Program. Starting in 2026, this FTE will be reallocated to WP Strategic Plan implementation and measurement. We are requesting an additional 1.0 FTE P&D, Spec II starting in 2026 to support WP Strategic Plan implementation based on the anticipated larger scale of community investments.

Part 4. Capacity Plan to Deliver (Existing/Capital Only) Sub-Investment C

SPU currently allocates $110,000 annually (O&M) for the Waste-free Community Grants Program ($100,000 for awards and $10,000 for outreach and translation). These funds will be reallocated to the WP Strategic Plan implementation starting in 2026.

SPU's current budget for the WP Strategic Plan research, development, and measurement is $288,000 annually (O&M). Our intention is to reserve these funds for ongoing WP measurement and plan updates. Allocating funds towards good measurement has been a key component of SPU's success as a leader in the diversion of recyclables and organic materials from landfill. We anticipate measurement will also be key to our success as a leader in WP.

Part 5. Racial Equity Impact of Sub-Investment C

WP has many community benefits, such as providing free and low-cost resources (e.g., food, clothing, furniture, outdoor gear, etc.) to low-income communities and people experiencing homelessness. There are also some potentially negative equity considerations when it comes to cost, such as spending more upfront on higher quality clothing that will last longer, or repairing something that can be purchased inexpensively new. These are the types of issues we are considering as we develop our WP Strategic Plan.

The WP Strategic Plan will become the guiding document on how SPU prioritizes resources for WP moving forward. As such, we are conducting an extensive community involvement process to guide the development of the WP Strategic Plan. Our RSJ consultant for the project has led us in developing an RSJ Framework for the planning effort. The framework prioritizes meaningfully involvement of Black and Indigenous communities, immigrant and refugee populations, elders, people with disabilities, low-income communities, and people experiencing homelessness. It emphasizes not only looking for barriers and gaps, but also for opportunities to share the WP wisdom and behaviors already practiced in communities. They will analyze the data and recommendations that come from the planning effort with an equity lens, and guide SPU in making decisions on goals, prioritization criteria, metrics, priority programs and policies, and measurement and evaluation tools and strategies. SPU's effort to develop an equitable WP Strategic Plan is the foundation that will help drive equity in our WP implementation efforts as well.

Part 6. Climate and Sustainability Impact of Sub-Investment C

WP is the foundation to supporting a circular economy and addressing the negative climate impacts of a linear waste economy. The development and implementation of WP strategies will help Seattle's residents and businesses face the challenges of the changing recycling markets and issues around the proliferation of single-use plastics. It's also the most effective way for us to combat climate change within the materials management field.

Part 7. Affordability Impact of Sub-Investment C

As noted in Sub-Investment 3 – Part 3 above, most of the requested funds will be reinvested in Seattle's local communities through grant funding, promoting, or otherwise supporting

community-led solutions to WP. This will result in the creation of jobs, the growth of small businesses, and helping customers save money through activities such as buying less, reuse, repair, repurpose, and sharing resources in the community.

Part 8. Alternatives and Options to Consider for Sub-Investment C

- **Proposed Investment above:** Support the continued investment in the WP Strategic Plan and Implementation Plan efforts as described above in detail, including hiring an FTE P&D, Spec II to support the WP Strategic Plan implementation beginning in 2026.

- **Alternative 1:** Hire a consultant rather than P&D, Spec II to help manage the WP implementation. This may be more expensive since we anticipate the P&D cost of $179K in 2026 would be the equivalent of $225K in consultant costs.

- **Status Quo:** Continuing the current path without investing in the WP Strategic Plan implementation would significantly impede SPU's ability to achieve the commitments in the Seattle Solid Waste Plan 2022 Update and devalue the community's input into the WP Strategic Plan. It could also hinder SPU's ability to move its WP goals forward; thus, generating more waste that needs to be managed downstream, all with a cost weather disposed of or diverted to recycling/composting.

SUB-INVESTMENT D: CONSTRUCTION & DEMOLITION (C&D) REUSE EVENTS AT TRANSFER STATIONS (GRANT DEPENDENT)

Part 1. Summary of Sub-Investment D

Project Lead – SWPPM Staff

Increasing reuse supports the City's Zero Waste vision, which entails moving upstream and looking at the whole life cycle of materials to eliminate waste and toxins, prevent pollution, reduce carbon emissions, and conserve natural resources. Seattle gets closer to zero waste by producing and using less. More details are provided in the City's 2022 Solid Waste Plan Update, Chapter 4: Waste Prevention & Reuse, which includes a recommendation to explore and expand market opportunities for reused material and repair services as this may help achieve a measurable drop in per-capita consumption and waste generation.

This investment focuses on operating reuse events for C&D waste at Seattle's transfer stations or other locations within Seattle. Between construction debris (62%) and furniture, appliances, and electronics (12%), approximately three quarters of the self-haul waste stream is likely recoverable if we provide consistent and reliable options for diverting reusable building material materials, reusable furniture, and quality broken furniture that can be repaired. SPU would work in collaboration with local partners to target the diversion of some of these materials/items.

Part 2. Targeted Commitments and Performance Measures for Sub-Investment D

Major Milestones	Anticipated Outcomes	Timing
Restart or Expand Reuse Events at Transfer Stations or other sites in Seattle	• Hire consultant(s). • Hold regular events (e.g., 2 events per month) at both transfer stations or other locations • Anticipated events would result in ~500 lbs per event, or 2,000 lbs per month being diverted	2025
Document and report on tons of materials diverted, broken out by category of material	• Annual Report documenting diverted materials	2026-2030

Part 3. Financial Summary of Sub-Investment D

Program Title	C&D Reuse Events at Transfer Stations (Grant-dependent) ($000's)						
Project Name	Various						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline - O&M	120	120	120	120	120	120	720
Baseline -Capital	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Baseline	**120**	**120**	**120**	**120**	**120**	**120**	**720**

The plan for the C&D Reuse Events at Transfer Stations is to start prior to 2025 on a pilot basis using state grant funding. After proof of concept is established, the reuse events would be conducted on an on-going basis going forward from 2025, continuing to use grant funding as we are able to obtain it. The grant funding will pay for a contractor to host the events, remove reusable furniture as well as broken furniture, repair that broken furniture, and for another vendor to collect reusable building materials. These events will also likely provide additional salvaged lumber that can be redistributed through the Salvaged Lumber Warehouse (Investment described below).

Part 4. Capacity Plan to Deliver (Existing/Capital Only) Sub-Investment D

An existing C&D P&D, Spec Sr., would take on the responsibility to hire the consultant(s), manage the consultant contract(s), and oversee the delivery of the C&D Reuse Events, working with existing transfer station staff is held at transfer stations.

Part 5. Racial Equity Impact of Sub-Investment D

Collecting reusable building materials and broken/unbroken furniture for reuse at the Transfer Stations or other site in Seattle provides easy access for Seattle residents to drop-off of items at low cost, a reduction in potential illegal dumping of items and the impacts and costs associated with cleaning that up, and low cost and potentially free building products and furniture to Seattle residents. The manufacture of these materials and items targeted results in the harvest of raw materials, manufacture, transport, and distribution of these new products, each aspect

having an impact on climate. Captured usable wood and furniture can be repurposed or repaired, creating low-cost options for used furniture and other items for Seattle residents.

Part 6. Climate and Sustainability Impact of Sub-Investment D

As noted in Sub-Investment 4 – Part 5 above, the manufacture of products targeted by the C&D Reuse Events result in the harvest of raw materials, manufacture, transport, and distribution of these new products and materials, each aspect having an impact on climate. Captured usable wood and furniture can be repurposed or repaired, prolonging their life, keeping the materials in circulation, and decreasing their overall life cycle impacts on the climate.

Part 7. Affordability Impact of Sub-Investment D

As noted in Sub-Investment 4 – Part 5 above, collecting reusable building materials and broken/unbroken furniture for reuse at the Transfer Stations or other site in Seattle provides easy access for Seattle residents to drop-off of items at low cost, a reduction in potential illegal dumping of items and the impacts and costs associated with cleaning that up, and low cost and potentially free building products and furniture to Seattle residents.

Part 8. Alternatives and Options to Consider for Sub-Investment D

- **Proposed Investment above:** Provide ongoing funding for a contractor(s) to operate reuse events within the Seattle area. Benefits include the diversion of items, especially large format items, that could be repurposed for use that would otherwise end up in the landfill.

- **Status quo:** Reuse Events will not occur, resulting in items that could be targeted for reuse through this investment not being collected and diverted from disposal. This will result in the continued harvest of raw materials, manufacture, transport, and distribution of new products to take the place of the still usable wood and furniture that are being disposed of. It could also result in continued illegal dumping of items that otherwise might be captured for reuse, and a failure to create low-cost options for used furniture and other items for Seattle residents.

SUB-INVESTMENT E: C&D SALVAGE LUMBER WAREHOUSE SUPPORT (GRANT-DEPENDENT)

Part 1. Summary of Sub-Investment E

Project Lead – SWPPM Staff

Increasing salvage and reuse supports the City's zero-waste vision, which entails moving upstream and looking at the whole life cycle of materials to eliminate waste and toxins, prevent pollution, reduce carbon emissions, and conserve natural resources. This Investment focuses on supporting the establishment and sustainable operation of a C&D Salvaged Lumber Warehouse in Seattle and hiring an associated long-term temporary staff person to support deconstruction projects. SPU would provide funding to local businesses to set up infrastructure to fill a key gap identified in the local circular economy for salvaged wood. The infrastructure we are aiming to establish is a secure, covered urban warehouse space large enough to initially accommodate at a minimum the wood recovered from 5% of Seattle’s homes removed annually or about six tons per month. SPU would also hire a one long-term temporary SW P&D, Spec II to support the

monitoring of deconstruction projects for the 2025-2027 period, which are anticipated to increase over time with State and City incentives and/or mandates, to ensure the system is working as intended and projects are maximizing recovery of reusable materials. Once data is gathered and need is established, SPU may request to convert the temporary position to a permanent one.

SPU successfully applied for and was awarded $4 Million in Federal grant funding. It is anticipated that other grant funding will become available that could also be tapped into for this project, especially if proof of concept and diversion data is established. Ultimately, the goal would be to spin off the Salvaged Lumber Warehouse to the private sector.

Part 2. Targeted Commitments and Performance Measures for Sub-Investment E

Major Milestones	Anticipated Outcomes	Timing
Staffing and Funding	• Hire a TES SW P&D Spec II to support the Salvage Lumber Warehouse project • Pursue and secure grant funding	2025
Implement or continue to support Salvaged Lumber Warehouse	• Establish the Salvaged Lumber Warehouse project • Process and reclaim 6 tons per month of salvaged lumber • Develop Annual Report documenting results	2025-2027

Part 3. Financial Summary of Sub-Investment E

Program Title	C&D Salvage Lumber Warehouse Support (Grant-dependent) ($000's)						
Project Name	Various						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline O&M – Salvaged Lumber Warehouse	120	120	120	120	120	120	720
Baseline O&M – TES P&D, Spec II	161	167	174				502
Baseline – Capital	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Baseline	**281**	**287**	**294**	**120**	**120**	**120**	**1,222**

The Investment for C&D Salvaged Lumber Warehouse Support, includes:

- **Salvaged Lumber Warehouse.** SPU is supporting the establishment of this warehouse in 2024 through the use of state grant funding. The support is estimated at $10,000 per month following the first 1-1.5 years of more robust financial support. We will continue to seek grant support for this project out past any initial grant funding to continue its viability.

- **TES SW P&D, Spec II.** The Salvaged Lumber Warehouse will receive wood primarily from deconstruction projects. The TES SW P&D, Spec II will monitor and support increasing

deconstruction projects as well as track progress towards weight-based and climate emissions reduction goals associated with reclaiming lumber. At this time, we are only looking for funding from 2025-2027; however, once data is gathered and need is established, SPU may seek to convert the TES position to permanent one for 2028-on.

Part 4. Capacity Plan to Deliver (Existing/Capital Only) Sub-Investment E

The Deconstruction TES will have access to approximately $50,000 annually of the C&D waste non-labor budget, which could be used for activities such as providing incentives, contracting for workforce training, or conducting outreach. Additional funding is anticipated to come from federal, state, and private sector funding opportunities.

Part 5. Racial Equity Impact of Sub-Investment E

Ensuring the successful operation of a Salvaged Lumber Warehouse locally, a pillar of the local wood circularity loop, goes together with increasing deconstruction and diverting C&D from the waste stream. Deconstruction has multiple benefits to communities across Seattle, including those that have experienced a lack of resources. By increasing deconstruction and salvaged lumber reuse in Seattle, we will have a positive impact on climate through greenhouse gas emission reductions, and on health and equity outcomes for vulnerable populations by improving air quality and creating training opportunities.

Construction workers are a vulnerable population in the workforce and are at risk of exposure to environmental and health hazards on the job. By increasing deconstruction over demolition, safer, healthier work sites for this workforce are created, as well as for residents and other community members near these projects.

In addition, deconstruction is more labor-intensive than demolition, and so not only is it safer for construction workers, but it also creates more jobs with relatively low barriers to entry. Furthermore, lower-income and marginalized communities and neighborhoods are often disproportionately impacted by the negative impacts of demolition because they do not always have the time or information necessary to advocate for themselves on this issue. By working to better incentivize deconstruction, SPU seeks to address this inequity by increasing healthy building removal practices in neighborhoods most impacted by poor air quality.

Part 6. Climate and Sustainability Impact of Sub-Investment E

As noted in Sub-Investment 5 – Part 5 above, increasing deconstruction and salvaged lumber reuse in Seattle will have a positive impact on climate through greenhouse gas emission reductions, and on health and equity outcomes for vulnerable populations by improving air quality and creating training opportunities. Incentivizing the deconstruction in Seattle of approximately 200 houses normally demolished annually will divert six tons of wood to reuse, achieving a potential net carbon benefit of approximately 7.6 metric tons of CO2eq per house compared to demolition. Every item salvaged and reused, prevents the harvesting of the equivalent raw materials, and impacts from manufacture, transportation, and distribution of the new product.

Part 7. Affordability Impact of Sub-Investment E

As noted in Sub-Investment 5 – Part 5 above, deconstruction is more labor-intensive than demolition, and therefore, creates more jobs with relatively low barriers to entry. Also, SPU seeks to use incentives to make deconstruction less expensive and a more available alternative to demolition.

Part 8. Alternatives and Options to Consider for Sub-Investment E

- **Proposed Investment above:** Support ongoing leasing costs for a Salvaged Lumber Warehouse and add 1.0 TES SW P&D, Spec II for deconstruction project monitoring and tracking for 2025-2027. Benefits include items described above in detail.

- **Status quo:** If this Investment is not funded, deconstruction and reuse businesses will continue to struggle to establish in Seattle due to high property values. SPU does not expect the private sector to establish this infrastructure without public support and seed funding. Deconstruction will continue to be hampered by the lack of a dedicated and sustainable Salvaged Lumber Warehouse located in or near Seattle. Without that processing and storage capacity, deconstruction will likely remain at current levels or decrease. Without incentivizing or requiring many more deconstruction projects, Seattle will continue to throw away or burn for energy approximately 6 tons of wood for each of the roughly 200 houses demolished annually and not achieve the potential net carbon benefit of approximately 7.6 metric tons of CO2eq per house compared to demolition. For all the materials targeted for reuse through this investment, we will continue to harvest raw materials, manufacture, transport, and distribute new products to take the place of the still usable lumber that we are disposing.

12. Customer Affordability Programs

SBP Focus Area	Empowering Our Customers, Community, and Employees
SBP Goals	Build trusted relationships, partnerships, and allyships with our customers and communities.
SBP Strategy	Provide utility assistance that makes a difference.
Template Type	Initiative
SPU Branch/LOB	PCC Branch/Customer Care Division
Executive Sponsor	Debra (Dee) Reed
Project Manager/Lead	Maryam Mason/Leslie Brinson
Reporting Cadence	Annual
Funding	
Last Update	September, 2023

Part 1. Summary of the Initiative

SPU will continue to improve programs, procedures, and policies that help keep our services affordable for lower-income customers, help customers pay their bills on time, and prevent water shutoffs related to nonpayment.

Our utility bill assistance initiative focuses on providing:

- Discounted billing through the Utility Discount Program to help lower-income customers afford essential services in an ongoing way.
- Emergency financial assistance through SPU and Federal programs to help lower-income customer navigate episodic financial hardship.
- Customer focused payment flexibility through alternative bill payment options to help all customers who might need assistance to prevent service disruption.
- Reconnections to water service and a pause on shutoffs for nonpayment during extreme heat events

Our work to improve customer assistance includes implementing programs rooted in customer voice to improve customer experience and participation, and efforts to reach customers who may fall through cracks created by our traditional outreach. As such, SPU is partnering with Seattle City Light on a holistic evaluation of our utility bill assistance programs to inform future program improvements.

Part 2. 2025-2027 Commitments

Major Milestones	Qtly Timing
Evaluation of utility bill assistance programs	Q2 2024
Implement utility bill assistance evaluation recommendations	2024-2026
Promise Pay payment plan implementation	2024

Preventing shutoffs during extreme heat	ongoing

Part 3. Racial Equity Impact

SPU's customer affordability programs are rooted in the fact that our region's BIPOC community is disproportionately impacted by severe housing cost burden, and utility costs are a portion of that burden. While increasing the affordability of SPU services only addresses a fraction of housing costs, SPU affordability programs help thousands of customers prevent water service disruptions through discounts, financial assistance and payment flexibility.

Part 4. Climate and Sustainability Impact

This initiative does not have a climate or sustainability impact.

Part 5. Affordability Impact

This initiative is rooted in increasing the affordability of SPU's services for our lower-income customers specifically, and more broadly, to help increase the ability of all customers to stay current on their bills and avoid shutoffs.

13. Side Sewer Assistance Program

SBP Focus Area	Empowering Our Customers, Community, and Employees
SBP Goals	Build trusted relationships, partnerships, and allyships with our customers and communities.
SBP Strategy	Provide utility assistance that makes a difference
Type	Investment
SPU Branch/LOB	DWW, Code Policy & Regulatory
Executive Sponsor	Ellen Stewart
Project Manager/Lead	Kevin Burrell
Reporting Cadence	Quarterly
Funding	Expanded on existing investment
Last Update	September, 2023

Part 1. Summary of the Investment

DWW Side Sewer Assistance Long-Range Planning								
2022	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Phase I: Loans								
		Phase II: Maintenance Incentives						
					Phase III: Private Pipe Repair			

SPU's pilot Side Sewer Assistance Program launched in 2022. Phase I provides 0% interest loans with no monthly payments due to low-income homeowners in need of urgent side sewer repairs. Phase II is in development and will offer incentives for side sewer preventative maintenance services such as inspection and cleaning. Poorly maintained side sewers increase costs and risks to both customers and SPU. SPU uses staff time and resources responding to hundreds of emergency calls from customers each year only to find that nearly nine out of 10 times the issue stems from a private side sewer.

This initiative will scale up the Side Sewer Assistance Program by adding one (1) to two (2) new program delivery models through Phase III (*see table below for a comparison of Phases I – III).* The new phase will focus on working towards improving system capacity issues through investment in lining or repairing leaky side sewers. By improving side sewers in targeted areas, SPU can greatly diminish the unwanted portion of inflow and infiltration from customer side sewers to its system. Potential areas of geographic focus for large-scale repair projects could include:

- Historically underserved and under-invested areas of the city.
- Sewer basins with wastewater capacity issues and limitations.
- Areas where private side sewers are proximal to sensitive receiving waters such as creeks and wetlands.
- Root hot spot areas.

- Right of way corridor projects with open road cuts where other projects are removing and replacing right of way surfaces.

Possible program delivery methods could include one or more of the following:

- Side sewer lining incentive/rebate/voucher (e.g., up to 50% of cost).
- Targeted basin or neighborhood scale repair or lining projects via on call contractors (performance-based contract).
- Combination of the above two, where capital investments are paired with on call contractors to coordinate repair of private side sewers at the lowest cost moment.

The expansion of the program into Phase III will require the addition of $10.35M funds including three (3) FTEs to oversee the program's research, development, and implementation: 1 FTE for Phase I and II, and 2 FTEs for Phase III. Currently, there is no FTE assigned to any of the phases. The currently funded TLE position will be replaced by the Phase I FTE. The contractor oversight required for Phases II and III would necessitate increases in SPU program and project management with a higher number of projects per year compared to Phase I.

	Side Sewer Assistance Phases		
	I	**II**	**III**
Delivery Model	Loan	Maintenance Incentives	*Private Pipe Repair*
Assistance Provided	0% interest loans 10-year term	CCTV inspection Jetting / rodding	*CIPP, slip lining, or other*
Phase's Goal	Reduce financial burden of costly emergency side sewer repairs	Incentivize proactive side sewer care and maintenance	*Improve system capacity through I/I reduction*
Assistance	$3,000 - $45,000 per loan	$500 - $2000 per customer	*$8000 per customer*
Eligibility	Households under 80% area median income	Households under 80% area median income	*Households within SPU-identified target areas* • *CSO basins* • *Root hot spots* • *Existing capacity issues*
Annual Goals	10-20 loans per year	100s incentives provided per year	*Est. 150-300 lining projects per year*
Phase Administration	Office of Housing Home Repair Program	Vendor to provide service w/SPU contract oversight	*Vendor to provide service w/SPU contract oversight*

Timeline	Implementation 2022	Development 2023 Implementation 2024	*Development 2025 Implementation 2027*
SPU Staff	Currently 1 TLE	1 FTE*	*2 FTE**
**This public-private partnership delivery model will require more SPU staff resources to oversee the service contracts*			

Part 2. Targeted Commitments and Performance Measures

Major Milestones	Anticipated Outcomes	Qtly Timing
Hire and onboard program team- 2 FTEs	Establish program team	Q2 2025
Draft program options analysis	Executive review of options	Q4 2025
Community engagement and feedback on program proposals (CBOs, CLs)	Preferred alternative(s) identified	Q1 2026
Engage consultant for program material development	Marketing and branding for program material	Q3 2026
Contractor/vendor selected	Program delivery method	Q4 2026
Full scale program implementation		Q1 2027

Part 3. Financial Summary

Program Title	**Side Sewer Assistance Phase III ($000's)**						
Project Name	Private Pipe Lining						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline O&M (3 FTEs)	525	525	525	525	525	525	3,150
Baseline Capital			1,800	1,800	1,800	1,800	7,200
Total Baseline	**525**	**525**	**2,325**	**2,325**	**2,325**	**2,325**	**10,350**

Part 4. Capacity Plan to Deliver (Existing/Capital Only)

To implement the work at scale, SPU envisions utilizing consultant resources (with oversight and management from SPU staff). One or more 3rd party vendors would perform project tasks such as: customer outreach/coordination, project management, pipe lining/repair services, etc.

Part 5. Racial Equity Impact

Low and fixed-income customers pay a disproportional amount of their income on their utility bills. The same is true when a broken side sewer needs to be repaired or wholly replaced, where costs can easily reach tens of thousands of dollars. As a result, few customers proactively clean or maintain their side sewers which compounds the overall financial burden for low- and fixed-income homeowners of owning and maintaining a side sewer in the long-term. Deferring maintenance leads to unnecessary backups into homes and expensive emergency repairs.

Part 6. Climate and Sustainability Impact

Poorly maintained or broken side sewers are contributors to sewage backups and overflows, which result in sewage on streets, lawns, in homes, public places, or water bodies. These overflows present both a public health and environmental risk. With climate change, SPU also expects higher volumes and frequencies of storm events which can further strain system capacity.

This investment would work to reduce the number of leaky side sewers that can cause these environmental issues.

Part 7. Affordability Impact

Poorly maintained or broken side sewers allow groundwater and stormwater to enter pipes. With an increase in the amount of wastewater flows to treatment plants there are increased costs, which gets passed along to ratepayers and customers. Private side sewers contribute a sizable percentage of SPU's systems' flows. SPU crews must respond to customer-reported side sewer backups and overflows, Wet weather conditions further strain system capacity. To expand that capacity, SPU undertakes costly capital projects such as the Ship Canal Project.

This investment would be a part of SPU's overall strategy to preserve the wastewater system's capacity for the future, and the reduction in costs.

Part 8. Alternatives and Options to Consider

Phase I of the current program is focused on emergency issues that have already occurred and will be working to create incentives for side sewer maintenance with Phase II. This next wave of investments for Phase III will get out ahead of both issues being solved with Phase I and II for low-income customers. This program expansion will make side sewer assistance available to more customers. If no action occurs, customers will continue to not inspect, clean, or repair their side sewers which only continues the status quo.

This initiative is scalable, where more staff or funding could accelerate the scope of the assistance provided. Currently, Phase I is supported by a TLE. Through this expanded initiative, we propose to add three (3) FTEs to support all three phases of work.

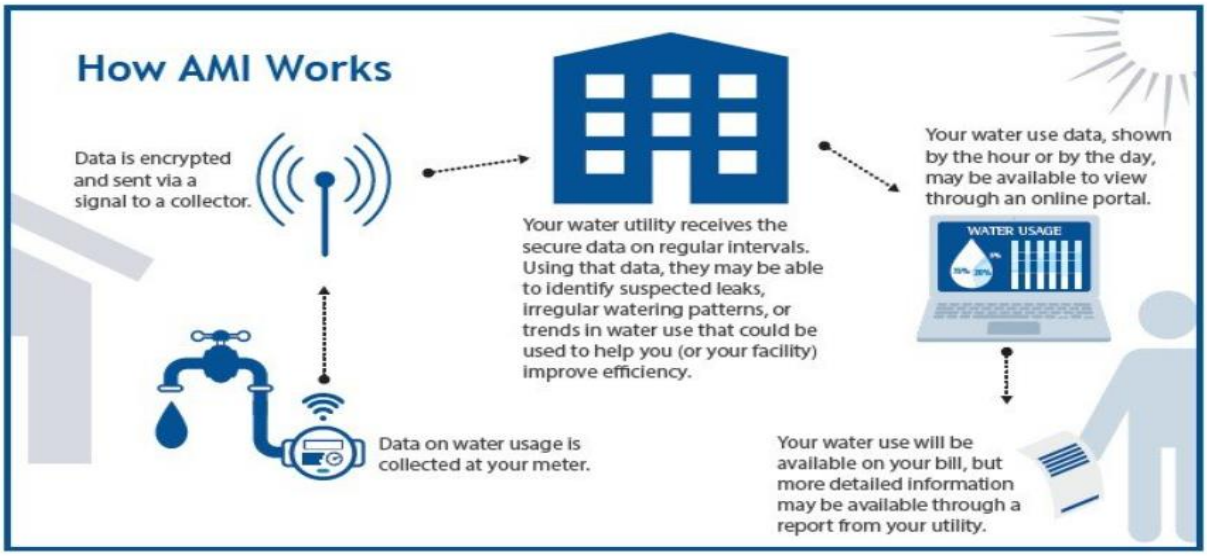
14. Advanced Metering Infrastructure Planning

SBP Focus Area	Empowering Customers, Community, and Employees
SBP Goals	Build trusted relationships, partnerships, and allyships with our customers and communities.
SBP Strategy	Empower and support customers to make sustainable behavioral changes.
Type	Investment
SPU Branch/LOB	PCC and Water LOB
Executive Sponsor	Idris Beauregard, Alex Chen
Project Manager/Lead	Natasha Papsoueva
Reporting Cadence	Quarterly (for investments)
Funding	Add
Last Update	December, 2023

Part 1. Summary of the Investment

SPU is currently in pre-planning evaluation stage of an Advanced Metering Infrastructure (AMI) project that would replace the majority of SPU's mechanical metering assets with electronic meters, equipped to transmit real time water consumption data, establish a backhaul network to transmit consumption data into a cloud base meter data management solution, enable automated remote meter reading and monthly billing, and provide accurate water consumption information to customers through SPU's Utility Services Customer Portal (Figure 1).

Figure 1. Water AMI.



Environmental Protection Agency. (n.d.). EPA. https://www.epa.gov/watersense/avanced-metering-infrastructure

This investment proposal covers the planning stages of AMI Project. The project represents a transformational opportunity for SPU to modernize its metering operations and management of meter assets. Currently, over 76% of SPU's meters are at or over 20 years old (Figure 2). SPU does not have a regular meter testing and replacement schedule. Rather, meters are replaced upon failure.

Figure 2. SPU Meters by size and age as of May 2023.

	Age (years)						
Meter Size (in)	**0-4**	**5-9**	**10-15**	**15-20**	**20-25**	**>25**	**TOTAL**
3/4	7,539	7,965	7,434	12,458	12,430	116,591	164,417
1	1,658	1,240	1,015	2,054	2,523	15,263	23,753
1.5	424	387	321	496	684	3,090	5,402
2	546	553	442	554	727	3,027	5,849
3	27	95	80	91	77	123	493
4	317	305	187	108	149	362	1,428
6	115	90	30	52	95	250	632
8	41	41	8	14	43	153	300
10	14	11	1	4	19	13	62
12	6	3	-	3	13	3	28
16	-	-	1	1	-	-	2
20	-	2	-	-	1	-	3
24	-	-	-	-	1	-	1
TOTAL:	10,687	10,692	9,519	15,835	16,762	138,875	**202,370**

Replacement of ageing mechanical meters with AMI enabled electronic meters would improve accuracy of registered water consumption, water leak detection, reduce consumption estimates, improve billing timeliness and accuracy, reduce claims, and enhance overall customer experience. Other benefits of implementing AMI for SPU include:

- Improved meter asset management based on actual meter performance data.
- Direct customer engagement in water consumption, conservation, and customer benefit programs.
- Improved system planning and capital investments delivery.
- Staff safety and reduction in work-related injuries.
- Environmental sustainability with reduction of field visits.
- Climate change resiliency, as AMI allows real time consumption monitoring and management.
- Building capacity for future innovation with Smart Water devices and IoT integration.

Part 2. Targeted Commitments and Performance Measures

AMI implementation would require a significant amount of planning and preparation and would involve collaboration with multiple stakeholders and city departments.

Major Milestones	Anticipated Outcomes	Timing
AMI Business Case	Full scale business case for AMI implementation with accompanying options evaluation, financial analysis, and recommendations	Q1 through Q4 2025 – Business Case development and completion
AMI resource planning, RFP development	Development of RFP with functional requirements and evaluation criteria for AMI solutions and implementation, IT integration, implementation schedule and network design. Development of preliminary AMI implementation plan defining preferred procurement and installation approaches and recourse estimates.	Q1 2026 through Q1 2027 Q1 2027
Customer and Stakeholder engagement effort	Develop customer and stakeholder engagement effort around AMI implementation, initiate customer and stakeholder outreach before AMI project kick off.	Q1 2027
RFP Solicitation and Contract Award	RFP for AMI implementation published before summer 2028 SBP rate path adoption. Vendor contract awarded.	Q3 2027 Q2 2028
Project Initiation	AMI Project initiated	Q2/Q3 2028 Project kick off. Project conclusion would depend on implementation schedule chosen.

Part 3. Financial Summary

Financial investment needed for AMI implementation directly depends on the type of AMI system SPU chooses to implement. SPU reviewed multiple factors that impact an AMI implementation program. A list of key variables and the options within each are described below:

Technology type: Several options are available, including standard and high-powered fixed network radio frequency systems with infrastructure owned by the City, cellular-based systems that utilize existing cellular network infrastructure, and managed Network-as-a-Service (NaaS) systems under which the AMI vendor maintains ownership of network infrastructure.

Meter replacement: The proportion of meters in the system that are replaced during AMI deployment. A typical AMI installation, particularly for older utilities, involves full replacement of all water meters. However, in some instances, meters that have been installed for short periods of time may be able to be retained and simply retrofitted with AMI functionality, versus being fully replaced.

Deployment timeline: Length of time for full deployment of the AMI program is driven by system size, budgetary and staff constraints, and size of deployment workforce.

SPU intends to conduct a competitive RFP process that will identify the AMI system and project options.

For 2025-2027 SBP period, SPU will focus on development of the business case, project resource planning, communication and outreach effort and RFP development. The planning phase costs are estimated to be approximately **$750K**, with business case development being at **$250K**; Project management and resourcing plan at **$50K**; RFP development and contracting negotiations support - **$200K**; Communications and Outreach to the community and stakeholders before we start implementation - **$250K**. This is O&M planning funding through 2027.

The majority of the project costs are capital investment funding. The projected rate impact of AMI investment over 6 years is 0.2%, which will be reevaluated based on the results of the business case analysis.

Program Title	**Advanced Metering Infrastructure (AMI) Investment ($000's)**						
Project Name	AMI Project						
	2028	**2029**	**2030**	**2031**	**2032**	**2033**	**TOTAL**
Baseline Capital	7,445	18,613	32,758	37,225	34,470	18,613	**149.900**

SPU anticipates seeing cost savings related to staff reductions, vehicle inventory, meter reading equipment, reduced water leak adjustments, and meter replacement costs. Meters Reading operational cost savings are estimated at $1.4M annually, Customer Service operational costs - at $358K annually, reduced Leak Adjustments are expected to yield savings at $2.5M annually, and meter replacement mitigation is anticipated to result in $433K annual savings.

The AMI investment is being planned under the following key assumptions:

- SPU will focus on minimizing workforce impacts from AMI by retraining staff and transitioning them to different roles.
- Customers will be offered an optout option from AMI implementation.
- SPU will be able to leverage existing technology assets in its portfolio, such as its Utilities Customer Self-Service Portal, CCB billing system, and MSCS meter data management system.
- Some meters older than 5 years may be able to be retrofitted, but it is unknown at this stage of analysis.
- SPU anticipates additional revenue recovery due to the introduction of more accurate electronic meters; however, the exact extent of the recovery cannot be firmly projected at this point.

Part 4. Capacity Plan to Deliver (Existing/Capital Only)

The project would utilize existing employees from multiple SPU branches and LOBs including Water LOB, DWW LOB, PDEB, Financial and Risk services branch, PCC branch, as well as other City departments subject matter experts and stakeholders. Existing staff may be supplemented with project-related temporary recruitment on as needed basis. Business case, resource planning and RFP development would require consultant engagements. Once the vendor is identified, the project team would consist of both City, vendor, and consultant staff.

Part 5. Racial Equity Impact

AMI implementation offers tangible improvements in utility service delivery and affordability for low income and underserved communities and customers. With a strong intersectionality between race and income distribution, old metering infrastructure and occurrence of water leaks are often very prevalent in low income and BIPOC communities, disproportionally affecting disadvantaged populations. AMI implementation would bring direct visibility to real time water usage and empower customers to manage their own consumption, improve leak detection and increase affordability of utility services through monthly billing.

Part 6. Climate and Sustainability Impact

Advanced Metering Infrastructure provides foundational capabilities in utility operations and customer engagement that will allow SPU to successfully mitigate climate change impacts and provide sustainable utility services. AMI's capability to capture water consumption real time provides customers with direct visibility to their water consumption trends, giving them opportunity to actively manage how they use water. This essentially changes the relationship between the utility and customers, making the latter active co-managers of our water resources, particularly during water advisory periods. Seeing direct impacts of changes in how they use water, customers will be more engaged in water conservation and other climate resiliency programs.

Improved water consumption and asset performance data obtained through AMI capabilities will transform the utilities asset management practices fully enabling predictive maintenance and asset condition monitoring. This will in turn result in improvements in operations and maintenance of the utility infrastructure as well as capital improvement projects planning.

Additionally, immediate climate resilience impacts will include reduction in vehicle utilization and emissions, as the utility will see significant reduction in manual meter reading operations.

Part 7. Affordability Impact

With AMI implementation, SPU will have an opportunity to offer monthly bills to its customers. Currently, the utility bills residential customers on a bi-monthly basis, with an average utility bill at $323.00. Switching to monthly billing will generate a more affordable monthly bill amount. Customers will also have visibility to bills and real time water consumption on the Utility Customer Self Service Portal. This will allow customers to see how participation in water conservation and other utility programs impact their SPU bills and understand how they use water.

AMI implementation will also significantly reduce water leaks and will enable the utility to promptly issue abnormal consumption notifications, thus reducing leak related high utility bills.

Part 8. Alternatives and Options to Consider

AMI implementation does not have alternatives that would achieve similar outcomes. The utility can pursue options in deciding how it would implement AMI programs from the perspective of technical solutions, project schedule and phases of work. These options would be evaluated in the business case analysis to identify the preferred path for SPU. Alternatively, SPU can choose to delay AMI implementation. The utility, however, would still be incurring the costs associated with meter replacement due to the age profile of its current meters. Aging meters would continue losing accuracy with the registered consumption increasing over the years. SPU would be facing increasing costs in its technology portfolio without realizing the benefits of updated cloud-based solutions, since the billing and metering systems are shared between SPU and SCL. Form the strategic perspective, the utility would loose on the opportunity to modernize its operations, bring customer experience in line with what is currently provided by most water utilities in the region, and build capacity for climate change resilience.

15. Seeds of Resilience Impact Investment Fund

SBP Focus Area	Empowering Customers, Community, and Employees
SBP Goals	Build trusted relationships, partnerships, and allyships with our customers and communities. Be an anchor institution that advances equity, addresses environmental justice, and partners to leverage holistic community benefits in all that we do.
SBP Strategy	Lead with race and social justice in delivering equitable engagement, capacity building, investment outcomes, and opportunities.
Template Type	Initiative
SPU Branch/LOB	GM's Office
Executive Sponsor	Andrew Lee
Project Manager/Lead	Kahreen Tebeau
Reporting Cadence	Annually
Funding	$600,000 in annual ongoing funding from utility rate payer dollars
Last Update	September, 2023

Part 1. Summary of the Initiative

"Seeds of Resilience" is SPU's impact investment fund/program that aims to advance equity and environmentally sustainable waste and water management activities in private sector markets that have a business nexus with SPU.

The program operates by identifying a business need for SPU, such as more service providers who can clean restaurant grease traps at an affordable price (which benefits our DWW line of business), or more workers trained with deconstruction skills (which benefits our SW line of business). We then reach out to partners in the private sector who can help us generate these outcomes, center equity in the design of the project, use a variety of contracting and procurement vehicles, and measure outcomes.

It requires building relationships with organizations we have not previously engaged before and fundamentally changing how we partner with the private sector to achieve our vision of One Water, Zero Waste, and being Community Centered.

Part 2. 2025-2027 Commitments

Major Milestones	Qtly Timing
Identify and invest in existing and new projects (up to annual budget)	4Q 2024, 2025, 2026
Report out on evaluation outcomes for projects concluded in 2024, 2025, and 2026.	On-going

Part 3. Racial Equity Impact

The Seeds of Resilience actively centers social and racial equity in the design of projects that are funded through this program. That means that for each project we fund, we are advancing economic opportunities or environmental justice for frontline community members. For example, we are currently funding stipends for formerly incarcerated community members to attend a three week workforce development training to help them develop deconstruction skills, which will enable them to better compete for gainful employment in both the construction and deconstruction fields.

Part 4. Climate and Sustainability Impact

Every project funded by the Seeds of Resilience has a positive impact on environmental sustainability. This is a requirement of the program, in terms of project criteria that must be met for every funded project. This often has a positive impact on climate mitigation or adaptation, though not climate is not the only environmental benefit we value with our projects. For example, with the Fats, Oils, and Grease (FOG) Community Jobs Program, we trained and equipped BIPOC and other frontline community members to become small businesses that could clean out restaurants' grease traps. This helps the environment by keeping FOG out of the drainage and wastewater system. And disposing of FOG properly also helps prevent greenhouse gas emissions. In this way, this project advanced both climate mitigation and broader environmental sustainability tied to our wastewater system.

Part 5. Affordability Impact

Every project funded by the Seeds of Resilience must have a business nexus and business case for SPU. This means that it helps SPU reach its stated goals, mission, and vision, of better managing waste and water. Often the private sector can perform work more efficiently and nimbly than government agencies. The Seeds of Resilience program aims to partner with private sector contractors and organizations to perform valued work that SPU does not or cannot take on as a government entity. For example, the FOG Community Jobs Program is aimed at helping local restaurants (who are our commercial business customers) better comply with FOG requirements by training and equipping small businesses who can offer this service more affordably than large national plumbing corporations. This in turn helps SPU keep its wastewater system free of FOG and can help prevent CSOs, which is a costly regulation for SPU.

Part 6. Alternatives and Options To Consider

Incorporating non-utility sources of funding into our impact investment fund, which is currently limited to utility dollars only, would allow us to pursue projects that have value for our community but may go beyond the scope of pure SPU utility business nexus. It would allow us to have a broader, more wholistic impact and engagement in the projects we are funding.

We may also consider partnering with other City departments on joint-impact projects where appropriate.

16. Equity in Contracting

SBP Focus Area	Empowering Customers, Community, and Employees
SBP Goals	Build trusted relationships, partnerships, and allyships with our customers and communities.
SBP Strategy	Lead with race and social justice; engage WMBE firms; and develop and implement strategies and solutions that eliminate barriers to entry and inequitable access to contracting opportunities.
Template Type	Initiative
SPU Branch/LOB	Financial and Risk Services Branch
Executive Sponsor	Paula Laschober
Project Manager/Lead	Jana Duran
Reporting Cadence	Annually for SBP
Funding	O&M
Last Update	09/05/2023

Part 1. Summary of the Initiative

Equity in Contracting is an initiative focused on

1. Engaging WMBE firms, to gain greater knowledge and understanding of the barriers to entry and inequitable access to city contracting opportunities, and
2. Developing and implementing actionable strategies and solutions to improve access to opportunities for WMBE firms and enhance the overall experience of doing business with the City.

2022 Accomplishments:

- Applied racial equity toolkit to the communication of consultant contracting opportunities.
- Drafted a racial equity toolkit summary memorandum, initiating the Equity in Contracting Program.
- Formed the Equity in Contracting cohort, that includes 2 sponsors and 14 staff, and encompasses 3 departments and each of the SPU branches / Lines of Businesses.
- Held informal interviews with 15 WMBE firms to gather information about their experiences doing business with the City of Seattle and business needs.

2023 Accomplishments:

- Developed strategies and tactics for 2 improvement opportunity pathways:
    - mapping connections and resources, and
    - communicating contracting opportunities to WMBE firms.
- Hired a black- and woman-owned consulting firm to provide culturally inclusive research and analytics by engaging directly with the WMBE community, to better understand their needs and barriers to opportunity, and to gather their ideas.

- Developed and administered WMBE Experience Survey, to include focus groups and one-on-one interviews, including compensation for interview participants' time and effort.
- Established WMBE Experience Survey core team and key connectors workgroups.
- Began producing an actionable strategies and solutions report, from WMBE Experience Survey data and focus group and one-on-one interviews.
- Began exploring city-wide accessible community business organization and community organization roster/contracting options.

2024 Plan:

- Develop WMBE Experience Survey response plan. (TBD)
- Implement response plan strategies and solutions. (TBD)
- Report response plan progress and recognize accomplishments. (TBD)

Part 2. 2025-2027 Commitments

Major Milestones	Qtly Timing
Implement WMBE Experience Survey response plan strategies and solutions.	TBD
Report response plan progress and recognize accomplishments.	TBD
Develop and Administer WMBE Experience Survey #2	2Q 2026

Part 3. Racial Equity Impact

Eliminate barriers to entry and inequitable access to contracting opportunities for WMBE firms, with intention to:

- Increase the volume of consultant contracting proposals submitted by WMBE firms as Primes.
- Increase consultant contracts awarded to WMBE firms as Primes.
- An increase in WMBE firm subconsultant participation on consultant contracts.
- An increase in blanket contracting proposals submitted by WMBE firms.
- An increase in blanket contracts awarded to WMBE firms.
- An increase in WMBE firm subcontracting participation on blanket contracts.

Additional Statistics:

- 17% of consultant contracting proposals received by SPU in 2022 were submitted by WMBE firms.
- Total city-wide purchasing spend in 2022 = $433M
- Total SPU purchasing spend in 2022 = $57M (~13% of city-wide goods and non-professional service spend)
- Total city-wide consultant contracting spend in 2022 = $215M
- Total SPU consultant contracting spend in 2022 = $35M (~16% of city-wide consultant contracting spend)

Part 4. Climate and Sustainability Impact

If successful, this initiative will direct a greater portion of City procurement dollars to local WMBE firms. Because the owners and employees of these firms work and live in and around the City of Seattle, they are likely to make a greater effort in caring for the environment and actively engaging in sustainability efforts.

Part 5. Affordability Impact

This initiative aligns with the City's BIPOC Generational Wealth Building, progressive procurement program, encompassing strategies that bring together local governments and place-based "anchor institutions" to recirculate wealth in their communities through intentionally equitable and regenerative procurement practices that re-localize economic activity, build local multipliers, and end leakage and financial extraction. These strategies harness the immense spending power of governments and anchor institutions to keep a progressively larger proportion of the amount that these institutions spend in the local economy. Procurement is specifically channeled towards firms and institutions that shift power to individuals and families largely excluded from it in the dominant economy including worker owned cooperatives and social enterprises.

City-wide commitment: Direct at least 10% from the City's multi-billion-dollar annual procurement expenditures towards BIPOC worker-owned enterprises by 2025 and 25% by 2030.

17. Employee Life Cycle Initiatives

SBP Focus Area	Empowering Our Customers, Community, and Employees
SBP Goals	Invest in all of our employees
SBP Strategy	Foster a more equitable workplace, work culture, and better work opportunities.
Template Type	Initiative
SPU Branch/LOB	People, Culture and Community
Executive Sponsor	Idris Beauregard
Project Manager/Lead	Adreinne Thompson
Reporting Cadence	Annual
Funding	O&M - $2.4M from DWW, SW
Last Update	November, 2023

Part 1. Summary of the Initiative

In order to create a workplace culture that promotes equity and inclusion SPU is examining the Employee Life Cycle beginning when an employee first applies, through their departure at SPU. Initiatives and policy development include the employee onboarding experience, workforce development, succession planning and the offboarding experience. The initiatives builds on the successes SPU has had in creating a diverse workforce and creating professional growth opportunities through training, mentorship and career advancement.

The funding is dedicated to hiring new staff during the 5-year SBP for total funding of $2.4 million and will be funded by Water, Drainage and Wastewater, and Solid Waste funds.

Part 2. 2025-2027 Commitments

Major Milestones	Qtly Timing
Evaluation period to assess the employee lifecycle touchpoints	2Q 2025
Generate recommendations to develop or modify processes and policies	4Q 2025
Hire appropriate staffing to take on new employee support initiatives	2025 – 2030

Part 3. Racial Equity Impact

Creating an environment that promotes equity and inclusion provides employees a feel of belonging and satisfaction in their job. This will also help employees deliver quality service to the public and have an employee workforce that is representative of the community in all positions within SPU..

Part 4. Climate and Sustainability Impact

Employee workforce initiatives will improve employee retention and help preserve institutional knowledge to ensure efficient and sustainable utility operations.

Part 5. Affordability Impact

Employee workforce initiatives will improve employee training and skills development, and improve employee job satisfaction and retention. Employees will be further engaged in and recognized for identifying and implementing operational improvements. This will improve utility efficiency and reduce costs, helping to keep rates affordable.

18. Alternative Funding and Financing

SBP Focus Area	Strengthening Our Utility's Business Practices
SBP Goals	Enhance ratepayer affordability and utility accountability
SBP Strategy	Deliver on high impact affordability and accountability commitments
Template Type	Initiative
SPU Branch/LOB	All
Executive Sponsor	Andrew Lee, Paula Laschober
Project Manager/Lead	Danielle Purnell
Reporting Cadence	Annual
Funding	Base budget
Last Update	September 2023

Part 1. Summary of the Initiative

This initiative is a cornerstone of SPU's efforts to keep rates affordable through pursuit of alternative funding and financing sources and strategic partnerships with agencies and other types of funders. SPU's approach to alternative funding and financing pursuits is based on a 'best fit' approach, where SPU matches its funding priorities with available funding sources that will yield a solid return on investment, which SPU defines broadly to include community needs and priorities, as well as financial return. SPU will also pursue opportunities to leverage coordination and partnerships with other City departments and agencies, as well as community and corporate partners. Through this initiative, SPU will continue to develop and refine structures and strategies to ensure that this work is robust, impactful, and efficient. Structural improvements include developing an inventory and rating of funding sources, tracking performance, and setting performance targets, as well as streamlining internal processes and procedures for pursuing funding opportunities and ensuring compliance with funding requirements. Strategic improvements include developing a multi-year funding portfolio strategy (matching SPU needs to sources), pursuing a funding advocacy strategy, and relationship-building with key funders and public, community, private, and philanthropic partners.

Part 2. 2025-2027 Commitments

Major Milestones	Qtly Timing
Establish, publish, and maintain an inventory of external funding, financing, and partnership sources.	Annually
Establish, publish, and maintain an SPU inventory of candidate projects for alternative funding and financing.	Annually
In coordination with all lines of business, establish and adjust rubrics for assessing funding opportunities and revenue partnerships, including	Annually

assessing return on investment of awarded grants, loans, and other sources.	
Develop, update, and implement an annual funding advocacy strategy for local, state, and federal opportunities that includes funding levels and policies.	Annually
Clarify and streamline internal processes and procedures for grant and alternative funding phases, from pursuit to award to implementation and close out.	Annually
Develop and maintain key relationships with funders and funding partners.	Annually

Part 3. Racial Equity Impact

By securing additional revenue (i.e., through grant funding) or lowering borrowing costs (i.e., through loan financing), alternative funding sources help keep SPU rates more affordable. Utility bills have a disproportionate burden on households with lower incomes, since a greater percentage of a household's income goes to pay for core needs, such as utilities. Consistent with demographics throughout the city, customers who have lower incomes also tend to be more racially diverse. This reinforces the importance of securing alternative funding and financing and the benefits it contributes toward affordability.

Moreover, pursuing and securing alternative funding and financing can also lead to more equitable outcomes and quality of life improvements in communities that have been historically underinvested. Depending on the funding source, these additional funding opportunities create pathways for SPU to carry out programs or projects that address community needs and achieve community benefits greater than what utility ratepayer funds can accomplish.

Part 4. Climate and Sustainability Impact

This initiative enables SPU to accomplish more on its climate and sustainability priorities, especially related to habitat restoration, infrastructure, and other environmental work. This is particularly timely, as new funding opportunities focused on climate adaptation and mitigation and climate justice have opened up through federal and state level action, including he federal Bipartisan Infrastructure Law (BIL), the federal Inflation Reduction Act (IRA), and the state's Climate Commitment Act (CCA).

Part 5. Affordability Impact

A primary outcome of this initiative is to help keep SPU rates affordable by leveraging and/or supplementing ratepayer funds or reducing borrowing costs to carry out programs and make capital investments. Utilizing external funds, such as from state, federal, or philanthropic sources, helps each ratepayer dollar accomplish more to meet SPU and community needs and priorities.

19. Drainage and Wastewater Asset Management Program

SBP Focus Area	Strengthening Our Utility's Business Practices
SBP Goals	Manage assets and risks optimally
SBP Strategy	Address aging, undersized, and at-risk facilities and infrastructure to ensure continuous service delivery
Type	Investment
SPU Branch/LOB	DWW LOB
Executive Sponsor	Ellen Stewart
Project Manager/Lead	Tara Wong Esteban
Reporting Cadence	Quarterly
Funding	New O&M & CIP add
Last Update	September, 2023

Part 1. Summary of the Investment

A significant amount of SPU's sewer pipes need to be replaced or rehabilitated due to age. SPU is investing in pipe lining to extend the life of aging pipe infrastructure. Replacing pipes can be up to 10 times more expensive than repair or rehabilitation. Pipe relining (a type of rehabilitation) is a more affordable and sustainable approach to reducing system risks and improving resiliency. SPU will develop an in-house pipe lining team as another cost-effective option to respond to urgent needs.

There are three areas of opportunities to implement an in-house full-pipe lining program:

1. *SPU is investing heavily in pipe lining as a cost-effective measure to repair aging sewer pipes. Creating an in-house full pipe lining program is in line with SPU's vision.*

   Similar to many mature and large US Utilities, a significant amount of SPU's sewer pipes needs either replacement or rehabilitation due to the age and condition of the pipe infrastructures. Excavating and replacing pipes, in a significant amount, is not practical nor desirable due to cost and impact on communities. Based on available data, replacing pipes can be up to 10 times more costly than repair/rehabilitation. Therefore, repairing/rehabilitating pipes to extend the useful life of the aging pipes when possible is preferred because it is more sustainable and cost-effective. Pipe lining is one of the most cost-effective methods to rehabilitate the aging sewer system, therefore, SPU has been and will continue to invest heavily in pipe lining for the foreseeable future.

2. *Some high-risk pipes may fail before contracted full-pipe lining work can be fulling executed. The in-house program can address these high-risk pipes before they become emergency projects.*

   Currently, the Sewer Rehabilitation Program follows an established process to evaluate pipe conditions and determine applicable pipe rehabilitation methods. The rehabilitation

program relies on contracted Public Works when full-pipe lining is recommended. The rigorous and complex design process and Public Works contracting process currently takes between three to four years from design through the construction stage. However, there are some pipes where the predicted window to rehabilitate these pipes may be much shorter than the contracted work timeline.

Delaying the repair of these pipes may lead to emergency failures which are costly, disruptive to our customers and the community, and disruptive to SPU's planned work. This would mean SPU could experience increased pipe emergencies and remain in a largely reactive mode. The reactive mode is contrary to SPU's vision of managing the system effectively and proactively. Developing a SPU MH to MH full-pipe lining program would allow SPU to have a mechanism for responding to urgent needs in a cost-effective manner. It will improve our customer experience.

3. *The in-house full pipe lining program, coupled with the existing in-house spot lining program, will further reduce the system risks, and create a more resilient SPU.*

Following the 2018-2023 SPU SPB plan, SPU has implemented a successful in-house spot lining program that is proven to be an efficient and cost-effective approach to address certain sewer system problems, to support meeting SPU's regulatory requirements and reduce the likelihood of structural failures of the system. The In-house Full-Pipe lining Program will supplement the spot lining program and help SPU further reduce the system risks and improve resiliency.

However, before we can focus on building a new in-house full-pipe lining program, we first need to catch up on routine maintenance and assess the condition of our existing assets – focusing on our neglected drainage assets. SPU is actively advancing SBP effort #18B – Expansion of Drainage Rehabilitation Work. We've completed our Drainage Program Review, hired a drainage rehabilitation program manager, added a new pipe assessor to focus on drainage assets and have started completing some simple drainage rehabilitation projects.

Initially, we want to hire ½ of the identified full-pipe lining crew to focus on CCTV of existing drainage assets. By doing this upfront condition assessment work, we can use the condition information to prioritize drainage rehabilitation projects. We will spend the first five years completing this assessment work until the remaining FTEs are hired to begin training for the full-pipe lining program. In 2030, we will also need to add a Planner based on lessons learned from our in-house spot lining program. The planner is needed to ensure the operations side runs smoothly including ordering materials.

Finally, we are asking to add one Senior Construction Maintenance Equipment Operator who is needed to maintain the new decant facility that will be constructed at South Operations Center (SOC). We will also need to purchase a new loader to maintain the decant facility. The new decant facility is scheduled to be completed in 2026.

Once the full team is hired and trained in 2030, it is expected that this crew can line between 75-110 sites annually at a cost of $36,000 to $53,000 per mainline. In comparison, a typical non-emergency public works contracted job would cost about $65,000 per mainline, and urgent job-order contract work would cost about $250,000 per mainline.

Part 2. Targeted Commitments and Performance Measures

Major Milestones	Anticipated Outcomes	Timing
Hire first 8 FTEs	CCTV drainage assets for condition assessment	2025-2029
Hire Operator	To maintain SOC decant facility	2026
Plan and procurement for full-pipe lining crew	Thorough plan to train and onboard new staff in addition to equipment procurement	2026-2029
Hire remainder of FTEs	Fully staffed lining crew – day shift and swing shift	2030

Part 3. Financial Summary

Program Title	**DWW Frontline Resources ($000's)**						
Project Name	DWW and Water "One Water" North Operations Complex						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline O&M	1,169	1,282	1,282	1,282	1,282	340	6,637
Baseline Capital	3,280	220	0	0	0	3,683	7,483
Total Baseline	**4,749**	**1,502**	**1,282**	**1,282**	**1,282**	**4,023**	**14,120**

2025: hire crew chief, 4 leads, 4 collection workers – focus on drainage assets (CCTV)

2026: hire 1 equipment operator for SOC decant facility

2030: hire 1 lead, 6 collection workers (2 of the 6 collection workers will be floaters to ensure fully staffed crews), 1 planner

Starting in 2030, the lining crew will charge approximately 70% of their time to CMOM CIP work and 30% will be O&M overhead

Includes annual fuel and maintenance cost for fleet. Small fleet is leased.

Part 4. Capacity Plan to Deliver (Existing/Capital Only)

The first 5 years will focus on core O&M work to advance a drainage rehabilitation program.

Once the full team is hired and trained in 2030, it is expected that this crew can line between 75-110 sites annually at a cost of $36,000 to $53,000 per mainline. In comparison, a typical

non-emergency public works contracted job would cost about $65,000 per mainline and urgent job-order contract work would cost about $250,000 per mainline.

At this early planning stage, it is assumed that the Program will:

1. Utilize UV technology to line high risk sewer pipe up to 12” diameter with possibility to expand to larger pipe in the future.
2. Include up to additional sixteen field staff and one planning and scheduling staff dedicated to the program. See Department Workforce Impacts section below.
3. Incur, on average, approximately $4 million per year based on the high-level budget analysis. The request to expand the lining program was included in the SPU 2021-2026 SPU Strategic Business Plan and costs are available in the Pipe Rehabilitation Program capital project placeholder and Lining Crew placeholder in the adopted/endorsed budget for 2024-2027 specifically for lining rehab projects (shifting contracted spending to in-house crew spending).
4. Require three to five years to plan and implement after the investment is approved.
5. Allow 1.5-3 days to complete each site.

Part 5. Racial Equity Impact

The majority of our frontline staff are people of color, so developing this in-house program offers them an opportunity to grow their skills, keeps work in-house, creates a more resilient operation and helps improve employee morale.

Part 6. Climate and Sustainability Impact

Investing in an in-house lining crew will increase our ability to rehabilitate and extend the life of our aging infrastructure. This work will help us keep sewage within our pipes and help reduce contamination of our groundwater, water bodies or damage to private property.

Part 7. Affordability Impact

This investment does not have significant impact to our rates. Once the full-pipe lining team is running and trained, they will be focused on CIP projects that have already been included in our long-term capital budget. Adding the in-house crews offers SPU more flexibility for construction options and provides us with another way to complete urgent repairs. Overall, completing lining projects in-house is more cost effective than hiring a contractor to complete the work.

Part 8. Alternatives and Options To Consider

- Do nothing – continue the current practice of relying on contracted work to achieve the goals of the CMOM Rehabilitation Strategy. This is risky because some assets are already past their projected rehabilitation window and could fail while waiting for their planned rehabilitation window which would result in expensive emergency work. This puts SPU at high risk of not effectively managing our system, potentially not meeting the goals of

the program, increasing costs due to emergency work and diverting resources from planned Capital Improvement Project (CIP) work.

- Increase production rate of contracted work – the sewer rehabilitation program depends on both contracted work (full-line replacement, spot repair, full-pipe lining) and crew work (spot lining & spot repair). Contracted work is delivered by Project Delivery and Engineering Branch (PDEB) as a CIP. PDEB has looked at trying to increase their production rate but concluded that it would be difficult to shorten the project duration significantly due to the rigorous process for design, bid, build public works projects.

20. Water Asset Management and Seismic Program

Focus Area	Strengthening Our Utility's Business Practices
Goals	Manage assets and risks optimally
Strategy	Address aging, undersized and at-risk facilities and infrastructure to ensure continuous service delivery
Type	Investment
SPU Branch/LOB	Water, Project Delivery and Engineering
Executive Sponsor	Alex Chen, Keri Burchard-Juarez
Project Manager/Lead	Bill Wells
Reporting	Quarterly
Funding	Continued capital baseline funding
Last Update	January 2021

Part 1. Summary of the Investment

SPU owns and operates a regional water system comprised of a vast array of assets ranging from dams, treatment plants, transmission and distributions pipes, storage tanks, pump stations, and more. The original water system was put into service in 1901 and has been continually expanded and improved. Many assets are aging; the average age of distribution pipes is approximately 70 years old. Investment in the repair, rehabilitation, and replacement of Seattle's aging water system via this continuing initiative is critical. In addition, SPU takes advantage of many opportunities to address water pipe issues in partnership with transportation improvements (with the Seattle Department of Transportation/SDOT), which can reduce roadway restoration costs and disruption to the community.

In addition to managing our assets, the water system needs to be seismically resilient. SPU completed a water system seismic study in 2019 aimed at increasing SPU's resilience against earthquakes. The study estimated that during a catastrophic earthquake, SPU would completely lose water pressure within 16 to 24 hours and it could take more than two months to restore service to all customers. A seismic resiliency strategy was developed that contains short-term and long-term actions to reduce the extent and duration of an earthquake-induced water outage. SPU is implementing the study recommendations via continued implementation of this initiative.

Part 2. Targeted Commitments and Performance Measures

Milestones	Anticipated Outcomes	Year
Replace 2 miles of distribution water main per year	Improved water distribution system	2025-2030
Replace 650 water service lines per year	Improved water distribution system	2025-2030
Review every SDOT project for water distribution system improvement	Improved water distribution system	2025-2030

opportunities and partner on the project where possible.		
Complete seismic upgrades on the following SPU water assets: • Magnolia Tank • Cedar River Pipeline at Renton • Eastside Reservoir • Riverton Reservoir	Improved seismic resiliency	2025-2028

Part 3. Financial Summary

The current six-year combined Capital Improvement Plan (CIP) includes funds for the asset management and seismic resilience projects in this initiative. This includes water main replacement, service line replacement, and distribution and transmission system seismic work. Selected projects strive to balance system reliability with rate affordability.

Program Title	**Water Asset Management and Seismic Program ($000's)**						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Water main replacement (MC-SU-C1129)	19,460	26,550	32,535	29,811	37,415	40,215	185,986
Service line replacement (MC-SU-C1109)	7,707	7,938	8,176	8,422	8,650	8,884	49,777
Transportation Project Opportunities (MC-SU-C4119)	15,472	9,746	3,607	3,500	5,000	5,000	42,325
Distribution System Seismic Improvements (MC-SU-1139+Magnolia Tank)	8,395	7,660	2,587	450	500	10,000	29,592
Transmission System Seismic Improvements (MC-SU-C1210)	8,570	14,657	18,236	13,650	16,700	15,650	87,463
Total Baseline Capital	**59,604**	**66,604**	**65,141**	**55,833**	**68,265**	**79,749**	**395,143**

Part 4. Capacity Plan to Deliver (Existing/Capital Only)

For SPU-led projects, existing staff and contracted resources will be used to complete the preliminary analysis, design, contracting and construction for the projects. Transportation opportunity projects are led by SDOT and driven by their funding and schedules, and therefore are less under SPU's control.

Part 5. Racial Equity Impact

Each project in this portfolio assesses equity impacts through applying SPU's Race and Social Justice Toolkit. This allows the project team and SPU's EJSE advisors to assess and develop actions to promote race and social justice equity in implementing the project.

Part 6. Climate and Sustainability Impact

These projects are critical for having a sustainable water system and supply. Each project also individually looks for ways to decrease our carbon footprint and improve climate change resiliency, while balancing costs that affect affordability.

Part 7. Affordability Impact

SPU's project initiation and options analysis stages consider multiple project options in relationship to system needs, long-term maintenance, long-term durability, community impacts/benefits, cost, and more. SPU typically chooses the lowest life cycle cost in selecting the preferred project alternative to minimize costs to ratepayers.

Part 8. Alternatives and Options To Consider

These programs were previously evaluated and are ongoing. No additional alternative analysis was complete for this SBP update.

21. Strategic Technology Plan

SBP Focus Area	Strengthening Our Utility's Business Practices
SBP Goals	Manage assets and risks optimally.
SBP Strategy	Support a continuous improvement and innovation culture.
Type	Investment
SPU Branch/LOB	People Community & Culture
Executive Sponsor	Idris Beauregard
Project Manager/Lead	Natasha Papsoueva, Steve Lavender
Reporting Cadence	Quarterly
Funding	New Investment
Last Update	September 2023

Background:

Technology plays a critical role in achieving SPU's Strategic Business Plan goals and informs the future of our work. In 2023 – 2024 SPU has begun planning for that future through the development and implementation of the SPU Strategic Technology Plan (SSTP). To support our essential services, a strategic technology plan is critical for ensuring that these services are delivered effectively, efficiently, and equitably. The purpose of SSTP is to enable a future-ready utility where technology empowers our employees to fulfill our commitment to people, communities, and the environment.

Part 1. Summary of the Investment

This new investment focuses on the implementation of the strategic technology plan across SPU. Key technology goals and objectives that have been outlined in the plan include the following elements that will help guide strategic technology decision-making for the next three to six years:

- Align technology solutions with utility strategies and business goals.
- Ensure our technology investments deliver value.
- Reflect our CARES guiding principles in technology investments.

This plan will include initiatives that support the following focus areas:

- Cybersecurity
- Digital Customer Experience, Customer Information Systems, Customer Engagement
- Application Rationalization, Cloud
- Operational Technology, IT/OT support, IT/OT integration and interoperability
- Asset Planning, Management and Operations
- Advanced Technologies to Support Future Workforce
- Data Management, Analytics, BI

- Tech Governance, Project Planning and Project Delivery

Part 2. Targeted Commitments and Performance Measures

Major Milestones	Anticipated Outcomes	Timing
Implement sustainable solutions that benefit SPU staff to enhance efficiency, customer service, and response times	Increased efficiency, reduced response times, improved service quality	Ongoing effort – deliveries per project schedule
Continuously monitor technology performance to optimize systems for efficiency, resource allocation, and asset management	Improvement in technology performance and resource optimization	Quarterly reporting
Ensure compliance with relevant regulations and standards, including cybersecurity and data privacy	Compliance with regulations, ensuring data security and customer privacy	Ongoing as part of the governance and oversight

Part 3. Financial Summary

This financial summary is based on the annual capital funding level of the technology CIP (Capital Improvement Project) portfolio over recent funding cycles. Capacity to deliver is dependent on resource availability in Seattle IT and SPU.

Program Title	**Technology CIP Portfolio ($000's)**						
Project Name	Overall Budget						
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**TOTAL**
Baseline O&M	2,500	2,500	2,500	2,500	2,500	2,500	15,000
Baseline Capital	15,000	15,000	15,000	15,000	15,000	15,000	90,000
Total Baseline	**17,500**	**17,500**	**17,500**	**17,500**	**17,500**	**17,500**	**105,000**

Part 4. Capacity Plan to Deliver (Existing/Capital Only)

Capacity plan to deliver is dependent on resource availability from Seattle IT and Seattle Public Utilities; however, SPU can and often does augment these resources with consultants. In the case that there is not enough staff to sufficiently fill a project team, divisions are encouraged to

open out-of-class or temporary positions to allow existing staff to dedicate more time to a project. Entire projects are not typically sourced outside the city but portions of them are. One to two years of planning typically elapses before a project hits the capital budget spending. Technology governance as part of SSTP will address how and which projects are prioritized, planned, and delivered.

Part 5. Racial Equity Impact

The Technology CIP Portfolio includes many projects and initiatives. All projects are reviewed using the RSJ toolkit as part of the standard process when moving from the initiation phase to the options analysis/planning phase.

Recognizing the critical importance of equitable access to essential services, the initiatives resulting from the SSTP will enhance SPU's service delivery, ensuring that all customers benefit from reliable water, drainage & wastewater, and solid waste services. By leveraging advanced technology solutions, SPU can enhance its operations in ways that directly benefit marginalized communities. This plan will support equitable access to essential services by improving digital tools and online platforms that make it easier for ratepayers, regardless of racial or socioeconomic background, to access information, report issues, and pay bills conveniently. Furthermore, the support of improved data analytics can be harnessed to identify and address disparities in service distribution, ensuring that historically underserved neighborhoods receive necessary support and resources.

In addition, transparency in decision-making can be improved by utilizing technology for public engagement and feedback collection, ensuring that the voices of underrepresented communities are heard and considered in policy formulation. Ultimately, it will be a powerful tool in the pursuit of racial equity, inclusivity, and access for the communities SPU serves.

Part 6. Climate and Sustainability Impact

SPU is developing strategies to help contribute to economic opportunity, enhance livability, and sustainability. SSTP initiatives support these goals in multiple ways.

- Implementation of advanced technology systems that allow SPU to detect and address leaks promptly and further promote water conservation.
- Stormwater management to promote smart systems that use sensors and data analytics to predict and respond to the impacts of weather events more effectively. This proactive approach helps mitigate the risks of flooding, which are becoming more prevalent due to climate change.
- Digital monitoring and analytics will empower SPU to optimize operations and provide even more reliable services.
- Improved community engagement will empower SPU to use technology to educate and involve our communities in water conservation, responsible solid waste sortation, and

environmental stewardship. Through online platforms and educational initiatives, we invite our customers to play an active role in sustainable practices.

By embracing technologies recommended in the SSTP Roadmap, we're ensuring that SPU paves the way for the future while also promoting affordability, maximizing community value delivering high-quality, sustainable utility services that positively impact the environment, economy, education, and overall well-being of the communities we serve.

About 50% of technology initiatives are put into place support lines of business:

- Drainage and Wastewater: programs that are part of the consent decree for Drainage and Wastewater to minimize flooding events, due to global warming.
- Water: Technology on the waterside is designed to utilize predictive analytics to utilize current water resources more efficiently.
- Solid Waste: technology is used to educate and communicate how we can meet our waste reduction goals.

Part 7. Affordability Impact

By utilizing advanced technologies to improve efficiency across the Utility, the cost of delivering services is reduced. When SPU selects projects to implement, affordability is considered. Affordability can show up in multiple ways in which SSTP projects are delivered, some include:

- Data that allows for cost analysis.
- Technology upgrades and innovation allow for reduction of maintenance of outdated systems. Some examples of this could include utilizing data analytics, real-time monitoring, and predictive maintenance, that will allow SPU to proactively identify and address issues, reducing the frequency and impact of service disruptions. This will lead to cost savings as fewer emergency repairs will be needed, allowing SPU to allocate resources more efficiently.
- The SSTP provides prioritization for projects so that work can be allocated, and project dollars spend in an effective way.
- SSTP initiatives enable customers to better access to information and control over utility usage. This transparency can encourage conservation, help ratepayers reduce their bills while also contributing to environmental sustainability. They also may enhance customer service through digital channels improving online portals and mobile applications to streamline billing and service requests. This makes it easier to interact with SPU, enhancing customer satisfaction and reducing administrative costs associated with manual processes.

Part 8. Alternatives and Options to Consider

The Strategic Business Plan has been developed and implemented, there are no alternative options to consider at this point. SPU can weigh what technologies they choose to pursue

through this plan over the next six years. When considering options, SPU may continue the path of maintaining the current technology structures based on maintenance needs and regulatory requirements, or they may invest in technologies based on a future forward and innovation. The SSTP will ensure we make high quality decisions about our technology investments.