



PRIORITY/ACTION TITLE: Expansion of Drainage Rehabilitation Work

Branch/Division: DWW

Executive Sponsor: Andrew Lee/Rose Ann Lopez

Project Manager/Lead: Julie Crittenden/Corinne DeLeon

Priority/Action Type:

2018-2023 Existing Action Plan with **continued** funding for 2021-2026

2018-2023 Existing Action Plan with **increased** funding for 2021-2026

New Priority requiring new funding

Priority with existing funding

Summary of the priority or issue.

The objective of this initiative is to increase the rate of rehabilitation of our aging drainage infrastructure assets helping to prevent flooding, improve water quality, and reduce impacts to our customers. This capital work will be guided by a Drainage Program Review, asset management planning, and program strategy development that is part of SPU's baseline work for 2020-2021.

Seattle Public Utilities owns and operates approximately 480 miles of storm drain pipelines, 295 storm drain outfalls, 23 large surface water facilities, 1 million gallons of underground stormwater detention, 11.6 miles of creek culverts, 129 miles of non-stream bearing culverts, 62 green stormwater facilities, over 20,000 catch basins, and 400 water quality structures in the city limits. The primary purposes of these assets are to convey, store and/or treat stormwater.

In the last 5 years, SPU has completed asset management plans (AMPs) for all drainage asset classes. The AMPs highlight the need to increase spending and resource allocation on the cleaning, condition assessment and rehabilitation of these assets. The Drainage Rehabilitation Program's current spending levels for the rehabilitation of existing drainage infrastructure is less than \$3M per year. This increase in spending is to address system deficiencies and prevent the high-cost, reactive activities related to deferred capital rehabilitation work.

Part 2. Targeted Commitments and Performance Measures (next 3-6 years).

For drainage assets, under this proposal, we expect to prioritize critical infrastructure improvements to drainage assets and continue to collect additional asset condition information, helping SPU's drainage rehabilitation program mature.

SPU has identified an immediate need to address drainage system deficiencies and begin addressing aging infrastructure in order to maintain the function of our system. The increased rehabilitation budget and additional staff needs below are to address resourcing necessary to support current needs:

- Increase rehabilitation budget by \$2M annually between 2024-2026 to increase rehabilitation of drainage assets. Roughly \$250k in baseline O&M funds have been re-allocated starting in 2020 to assist with the planning of this work.



- Increase staff positions by 1.5 FTEs. 1 FTE to provide program support and implementation and 0.5 FTE for an assessor. (These positions may be reallocated within existing open positions.)

The drainage program will deliver projects based on risk and criticality; however, the program prioritization will evolve based on new condition data or other identified operational concerns. Specific projects will be identified as part of the planning process.

Targeted Commitments	Performance Metrics	Performance Measure
Reduce backlog of degraded drainage assets	Dollars Spent	Meet spending shown in Part 3 Table 95% accomplishment rate
	Number of assets retrofitted. Reduce backlog of degraded assets by 2% a year.	90% or higher achievement of annual goal

Part 3. Baseline Activities and Anticipated Rate Impact

In 2020-2021, SPU will perform a Drainage Program Review. This work will include an audit of the existing program, prioritization of asset management plan recommendations, prioritization of condition assessment needs, and revise the short- and long-term capital improvement plan for this asset class.

Baseline activities for Drainage Rehabilitation include the following:

- Program Planning 2020-2021 \$250k/year (\$ vary)
- Stream Culvert Replacement Program - \$2-13M per year (\$ vary)
- Drainage Rehabilitation - \$1M per year (\$ vary)

Program Title	Drainage Rehabilitation						
Project name and number(s)							
(\$000's)	2021	2022	2023	2024	2025	2026	Total
DRAINAGE							
Baseline \$ O&M	250						250
Baseline \$ Capital**	3,071	3,819	12,093	9,990	13,102	12,022	54,097
Total \$ Baseline	3,321	3,819	12,093	9,990	13,102	12,022	54,347
O&M \$ Increase	0						
CIP \$ Increase		500	1,000	2,000	2,000	2,000	7,500
Total \$	3221	4,319	13,093	11,990	15,102	14,022	61,847
FTEs Added/Changed	1.5*						1.5*

*May be reallocated from internal open positions.

**Baseline includes existing drainage rehab, creek culvert projects, sand boxes, and facility rehabilitation.

Part 4. Alternatives Considered & Race and Social Justice Considerations

Each project proposed as part of the Drainage Rehabilitation Program will go through an option analysis and collaborative scoping process in accordance with SPU policy to evaluate the appropriate project scope while ensuring that the improvement accommodates future capacity and operational needs. As we learn more about drainage assets, the program will adjust and future SBP action plans will be changed accordingly.

There are no implications associated with this program to equity, race and social justice. These improvements will be spread throughout the City of Seattle and are driven by asset deterioration and criticality. Equity and Race/Social Justice toolkits will be implemented at the planning level of projects.