FY2023-2029 Capital Investment Program

W-16: Water Main Replacement

Category: High Quality Built & Natural Environment
Status: Ongoing
Department: Utilities
Location: Citywide

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget	FY 2026 Budget	FY 2027 Budget	FY 2028 Budget	FY 2029 Budget
239,066,885	127,536,885	11,954,000	12,525,000	19,447,000	16,158,000	17,351,000	16,329,000	17,766,000

Description and Scope

This program focuses on replacing water mains that have reached their useful life, with the goal of reducing risk. Additional benefits include increasing the firefighting flow available to neighborhoods, improve reliability with additional valves (to limit service shutdowns), and improving earthquake resiliency with more robust pipe. This investment funds pipeline replacement at a rate of 5 miles/year, adjusted with inflation. At that rate, water pipe will need to last on average 100-125 years to sustainably maintain the entire 608-mile water distribution system. Pipes are prioritized for replacement based on risk of failure (likelihood and consequence), break history, potential for cost savings or reduced neighborhood impacts by coordinating with other construction projects (e.g., planned street overlays), and opportunities to address level of service deficiencies (low flow or pressure) or vulnerable pipes in poor soils.

Rationale

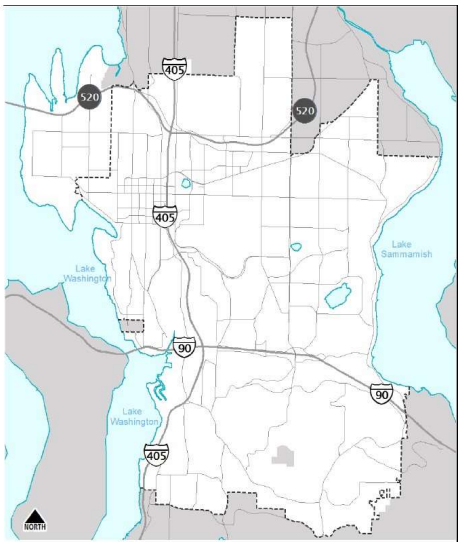
In the short term, this program reduces the likelihood of catastrophic system failures, unplanned service interruptions, damage claims to the city, and sharp rate increases to react to system failures rather than proactively managing the system. In the long term, timely replacement or repair of water system assets keeps customer rates as low as practical by managing the system at the least life-cycle cost while maintaining target service levels and meeting regulatory requirements.

Environmental Impacts

Operating Budget Impacts

This program will have no significant impact on operating revenues and/or expenditures.

Project Map



Schedule of Actvities

Project Activities	From - To	Amount
Project Costs	Ongoing	239,066,885
	Total Budgetary Cost Estimate:	**239,066,885**

Means of Financing

Funding Source	Amount
Beginning Fund Balance	99,554,722
Transfers from Other City Funds	139,512,163
Total Programmed Funding:	239,066,885
Future Funding Requirements:	-

FY2023-2029 Comments

FY2023-2029 Capital Investment Program

S-66: Sewer System Pipeline Repair and Replacement

Category: High Quality Built & Natural Environment
Status: Ongoing
Department: Utilities
Location: Citywide

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget	FY 2026 Budget	FY 2027 Budget	FY 2028 Budget	FY 2029 Budget
18,972,333	17,018,333	558,000	71,000	270,000	839,000	216,000	-	-

Description and Scope

This program replaces poor condition sewer pipe throughout the service area. Pipes are replaced when life cycle cost analysis indicates replacement is more economical than continuing to make point repairs. Replacement methods may include trenchless rehabilitation techniques such as cured-in-place pipe, and pipe bursting, and/or open trench replacement. Sewer System Pipeline Repair, which repairs pipes to extend their service life. This program implements Bellevue's asset management program strategy to meet expected and required customer service levels at the lowest life cycle cost.

Rationale

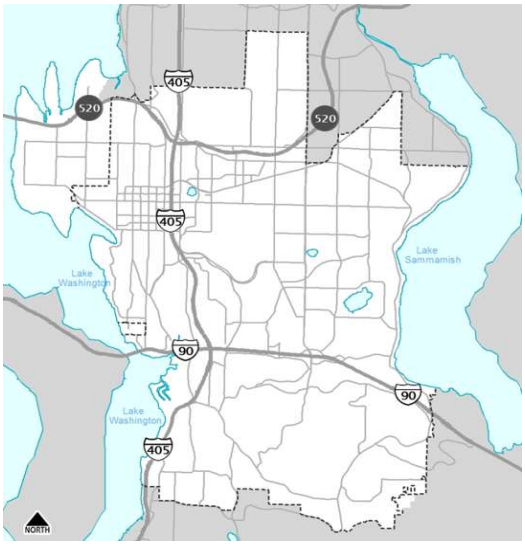
Sewer infrastructure rehabilitation and replacement is based on asset criticality and business risk, per industry best practices. In the short term, this program reduces the likelihood of catastrophic system failures, damage claims, and sharp rate increases to react to failures rather than proactively managing the system. In the long term, timely replacement or repair of wastewater facilities keeps customer rates as low as practical by managing the system at the lowest life-cycle cost, while maintaining service levels and meeting regulatory requirements.

Environmental Impacts

Operating Budget Impacts

This program will have no significant impact on operating revenues and/or expenditures.

Project Map



Schedule of Actvities

Project Activities	From - To	Amount
Project Costs	Ongoing	18,972,333
Total Budgetary Cost Estimate:		**18,972,333**

Means of Financing

Funding Source	Amount
Transfers from Other City Funds	18,972,333
Total Programmed Funding:	18,972,333
Future Funding Requirements:	-

FY2023-2029 Comments

FY2023-2029 Capital Investment Program

D-64: Storm Water System Conveyance Infrastructure Rehabilitation

Category: High Quality Built & Natural Environment
Status: Ongoing
Department: Utilities
Location: Citywide

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget	FY 2026 Budget	FY 2027 Budget	FY 2028 Budget	FY 2029 Budget
44,197,231	24,405,231	3,822,000	1,840,000	2,772,000	2,843,000	2,909,000	2,660,000	2,946,000

Description and Scope

This ongoing program repairs defective storm drainage pipelines, culverts and ditches identified in the Utility's condition assessment program or other means. Projects are prioritized based on the severity of deterioration, the risk and consequence of failure, and coordination with planned street improvement projects. As the system ages, costs are expected to increase. The Utilities' Asset Management Program is evaluating when system replacement will require significant increases to the budget.

Rationale

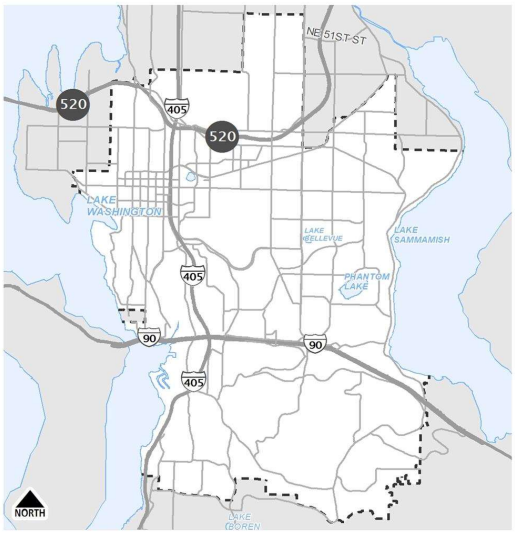
Storm infrastructure rehabilitation and replacement is based on asset criticality and business risk, per industry best practices. In the short term, this program reduces the likelihood of catastrophic system failures; traffic disruption due to failed culverts under streets; damage claims to the city; and utility rate spikes to respond to system failures rather than proactively managing the system. In the long term, timely replacement or repair of stormwater facilities keeps customer rates as low as practical by managing the system at the lowest life-cycle cost, while maintaining service levels and meeting regulatory requirements.

Environmental Impacts

Operating Budget Impacts

This program will have no significant impact on operating revenues and/or expenditures.

Project Map



Schedule of Actvities

Project Activities	From - To	Amount
Project Costs	Ongoing	44,197,231
	Total Budgetary Cost Estimate:	**44,197,231**

Means of Financing

Funding Source	Amount
Beginning Fund Balance	1,068,843
Transfers from Other City Funds	43,128,388
Total Programmed Funding:	44,197,231
Future Funding Requirements:	-

FY2023-2029 Comments