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

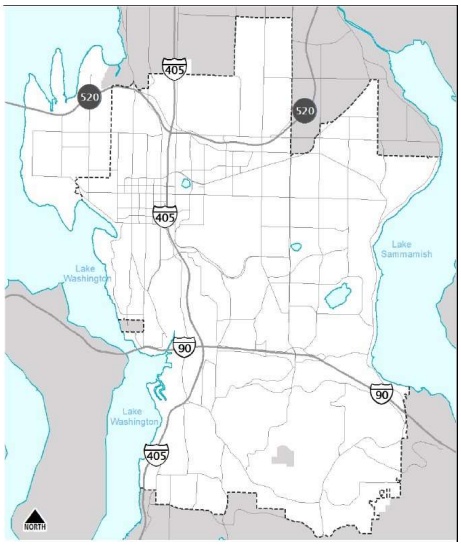
In the short term, this program reduces the likelihood of catastrophic system failures, unplanned service interruptions, damage claims to the city, and sharp rate increases to react to system failures rather than proactively managing the system. In the long term, timely replacement or repair of water 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

W-67: Pressure Reducing Valve (PRV) Station 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
19,003,971	10,071,971	800,000	823,000	1,093,000	1,348,000	3,124,000	948,000	796,000

Description and Scope

This ongoing program rehabilitates or replaces aging, obsolete pressure reducing valve (PRV) stations throughout the water service area. It will also add remote flow and pressure sensors to monitor these stations. The number of PRV stations that are rehabilitated varies from year to year based on the annual program budget and the rehabilitation costs, but over the long term should average about 3 PRVs per year to sustainably rehabilitate over 150 stations on a roughly 25-year cycle. Prioritization criteria include access requirements, safety, maintenance history, age, and efficiencies gained with overlapping or adjacent projects.

Rationale

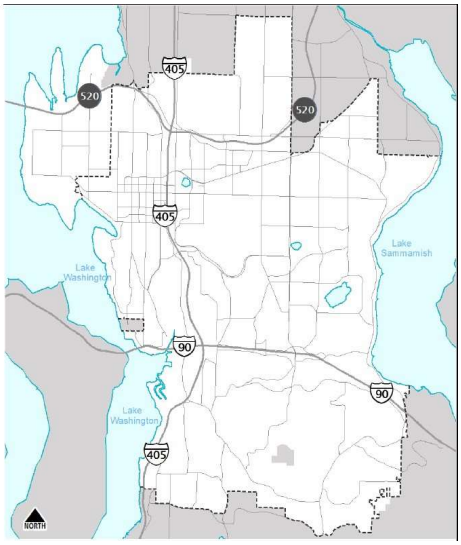
In the short term, this program reduces the likelihood of catastrophic system failures, unplanned service interruptions, damage claims to the city, and sharp rate increases to react to system failures rather than proactively managing the system. In the long term, timely replacement or repair of water 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	19,003,971
	Total Budgetary Cost Estimate:	**19,003,971**

Means of Financing

Funding Source	Amount
Transfers from Other City Funds	19,003,971
Total Programmed Funding:	19,003,971
Future Funding Requirements:	-

FY2023-2029 Comments