

FY2023-2029 Capital Investment Program

**W-85: Reservoir Rehabilitation or Replacement**

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

**Programmed Expenditures**

<u>Programmed Expenditures</u>	<u>Appropriated To Date</u>	<u>FY 2023 Budget</u>	<u>FY 2024 Budget</u>	<u>FY 2025 Budget</u>	<u>FY 2026 Budget</u>	<u>FY 2027 Budget</u>	<u>FY 2028 Budget</u>	<u>FY 2029 Budget</u>
40,467,477	28,749,477	750,000	3,488,000	1,257,000	1,086,000	794,000	3,633,000	710,000

**Description and Scope**

This program funds recoating, rehabilitation, seismic retrofits and/or replacement of drinking water reservoirs to maintain these facilities for reliable operation. Bellevue operates and maintains 24 active drinking water reservoirs and shares partial ownership (and access to water) in 4 other reservoirs maintained and operated by neighboring utilities.

**Rationale**

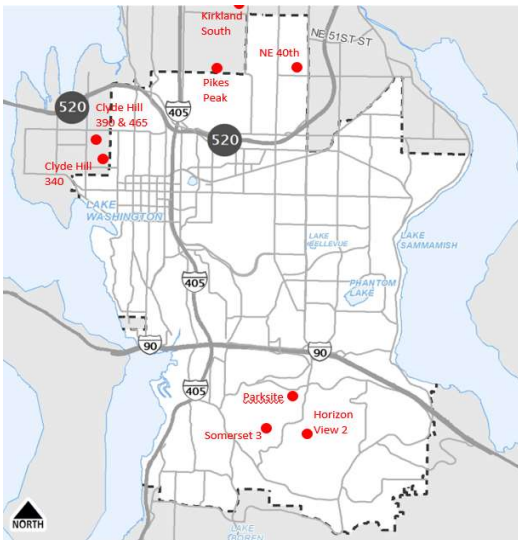
In the short term, this program reduces the likelihood of catastrophic system failures, unplanned service interruptions, damage claims to the city, and sharp rate increases to react to system failures rather than proactively managing the system. In the long term, timely replacement or repair of water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

<b>Project Activities</b>	<b>From - To</b>	<b>Amount</b>
Project Costs	Ongoing	40,467,477

**Total Budgetary Cost Estimate: 40,467,477**

**Means of Financing**

<b>Funding Source</b>	<b>Amount</b>
Transfers from Other City Funds	40,467,477

**Total Programmed Funding: 40,467,477**

**Future Funding Requirements: -**

**FY2023-2029**

**Comments**

FY2023-2029 Capital Investment Program

**W-91: Water Pump Station Rehabilitation or Replacement**

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

**Programmed Expenditures**

<u>Programmed Expenditures</u>	<u>Appropriated To Date</u>	<u>FY 2023 Budget</u>	<u>FY 2024 Budget</u>	<u>FY 2025 Budget</u>	<u>FY 2026 Budget</u>	<u>FY 2027 Budget</u>	<u>FY 2028 Budget</u>	<u>FY 2029 Budget</u>
28,961,473	18,781,473	4,462,000	2,682,000	1,786,000	410,000	422,000	-	418,000

**Description and Scope**

This program was established in 2005 to rehabilitate or replace drinking water pump stations. Bellevue operates and maintains 21 pump stations, and shares partial ownership in a separate pump station operated by Coal Creek Utility District. Based on a needs assessment of each pump station, investments can range from basic improvements to complete reconstruction. The rehabilitation work may include capacity, safety and reliability improvements, new mechanical and electrical equipment, on-site emergency power generation, and seismic retrofits.

**Rationale**

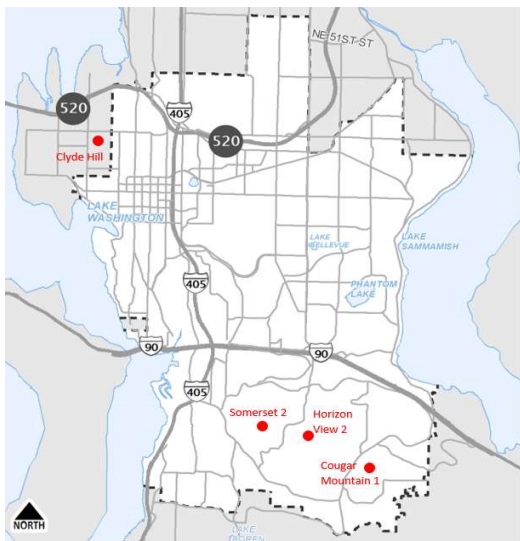
In the short term, this program reduces the likelihood of catastrophic system failures, unplanned service interruptions, damage claims to the city, and sharp rate increases to react to system failures rather than proactively managing the system. In the long term, timely replacement or repair of water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

<u>Project Activities</u>	<u>From - To</u>	<u>Amount</u>
Project Costs	Ongoing	28,961,473

**Total Budgetary Cost Estimate: 28,961,473**

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Transfers from Other City Funds	28,961,473
<b>Total Programmed Funding:</b>	<b>28,961,473</b>
<b>Future Funding Requirements:</b>	<b>-</b>

**FY2023-2029**

**Comments**

**FY2023-2029 Capital Investment Program**

**W-16: Water Main Replacement**

Category: High Quality Built & Natural Environment

Status: Ongoing

Department: Utilities

Location: Citywide

**Programmed Expenditures**

<u>Programmed Expenditures</u>	<u>Appropriated To Date</u>	<u>FY 2023 Budget</u>	<u>FY 2024 Budget</u>	<u>FY 2025 Budget</u>	<u>FY 2026 Budget</u>	<u>FY 2027 Budget</u>	<u>FY 2028 Budget</u>	<u>FY 2029 Budget</u>
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 Activities**

<u>Project Activities</u>	<u>From - To</u>	<u>Amount</u>
Project Costs	Ongoing	239,066,885

**Total Budgetary Cost Estimate: 239,066,885**

**Means of Financing**

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

**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**

<u>Programmed Expenditures</u>	<u>Appropriated To Date</u>	<u>FY 2023 Budget</u>	<u>FY 2024 Budget</u>	<u>FY 2025 Budget</u>	<u>FY 2026 Budget</u>	<u>FY 2027 Budget</u>	<u>FY 2028 Budget</u>	<u>FY 2029 Budget</u>
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**

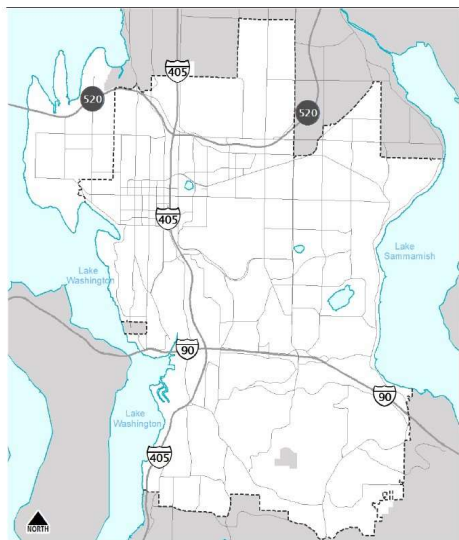
In the short term, this program reduces the likelihood of catastrophic system failures, unplanned service interruptions, damage claims to the city, and sharp rate increases to react to system failures rather than proactively managing the system. In the long term, timely replacement or repair of water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

<u>Project Activities</u>	<u>From - To</u>	<u>Amount</u>
Project Costs	Ongoing	19,003,971

**Total Budgetary Cost Estimate: 19,003,971**

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Transfers from Other City Funds	19,003,971
<b>Total Programmed Funding:</b>	<b>19,003,971</b>
<b>Future Funding Requirements:</b>	<b>-</b>

**FY2023-2029**

**Comments**