

W-85 Reservoir Rehabilitation or Replacement

Category: **Water**
 Department: **Utilities**

Status: **Ongoing**Location: **Reservoir locations throughout Water Utility's service area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2015 Budget	FY 2016 Budget	FY 2017 Budget	FY 2018 Budget	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget
14,730,705	8,781,705	1,045,000	1,639,000	1,057,000	1,093,000	140,000	229,000	746,000

Description and Scope

This program funds retrofit or replacement of drinking water reservoirs to avoid or mitigate earthquake damage, and reservoir rehabilitation for age- or use-related deterioration. Bellevue operates and maintains 25 drinking water reservoirs in the system with a combined capacity of 40.6 million gallons. A 1993 reservoir study evaluated the seismic vulnerability of 21 of the reservoirs and recommended further evaluation and/or upgrade for 12 of these reservoirs. Remaining work at Horizon View #1, Somerset #1, Pikes Peak Reservoir, and Horizon View #2 reservoirs will be completed during this CIP window. A new study of the other reservoirs will determine upcoming needs and priorities for asset rehabilitation and replacement.

Rationale

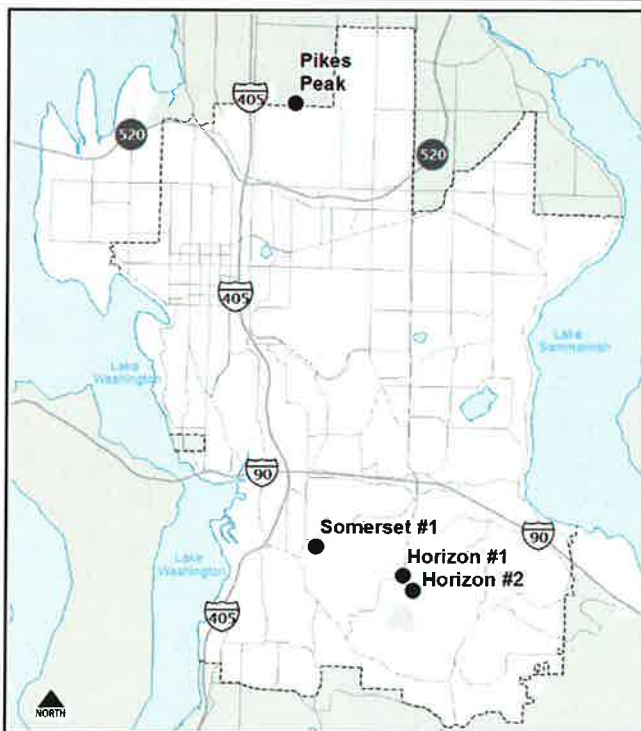
Major upgrades have been completed at seven of the 12 reservoirs identified for upgrade in the 1993 assessment. The improvements reduce life safety risk and reduce economic risk during and following seismic events. The remaining five will be completed by 2021. A study of the other reservoirs will determine upcoming needs and priorities. Projects are prioritized based on risk (likelihood and consequence of failure); seismic vulnerability for continued service; and coordination with other projects (such as pump station retrofit or adding new drinking water storage). Failure consequences that will be reduced include risk to life safety and economic viability, loss of tank system operation and compromised emergency water storage, loss of use of communications systems, and property damage from water escaping the reservoir. Upgrades range from relatively minor roof repair and corrosion protection to reservoir replacement.

Environmental Impacts

Structural retrofit of reservoirs reduces the chance of structural failure, and therefore reduces the chance of environmental damage due to stored water escaping the tank or vault. The environmental impacts will be determined during the design of each specific project.

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2005 - 2021	14,730,705

Total Budgetary Cost Estimate: 14,730,705

Means of Financing

Funding Source	Amount
Miscellaneous Revenue	2,779,000
Utility Rates/Fees	11,951,705

Total Programmed Funding: 14,730,705

Future Funding Requirements:

Comments