

W-16 Small Diameter Water Main Replacement

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

Status: **Ongoing**
 Location: **Water Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
162,281,885	83,042,885	16,040,000	9,914,000	10,113,000	10,317,000	10,736,000	10,950,000	11,169,000

Description and Scope

This program focuses primarily on replacing small diameter asbestos cement (AC) pipe that has reached its useful life. A secondary benefit is increasing the emergency fireflow available to neighborhoods. This investment will ramp up water pipeline replacement to 5 miles/year by 2018, and then be adjusted with inflation to maintain the 5 miles per year replacement rate. At that rate, water pipe will need to last on average 100-125 years. Pipes are selected for replacement based on risk of failure (likelihood and consequence), failure history, and coordination with other construction, such as planned street overlays (which reduce restoration costs). Project costs include a 2.8 percent cost increase reflecting actual bid experience for pipe replacement.

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.

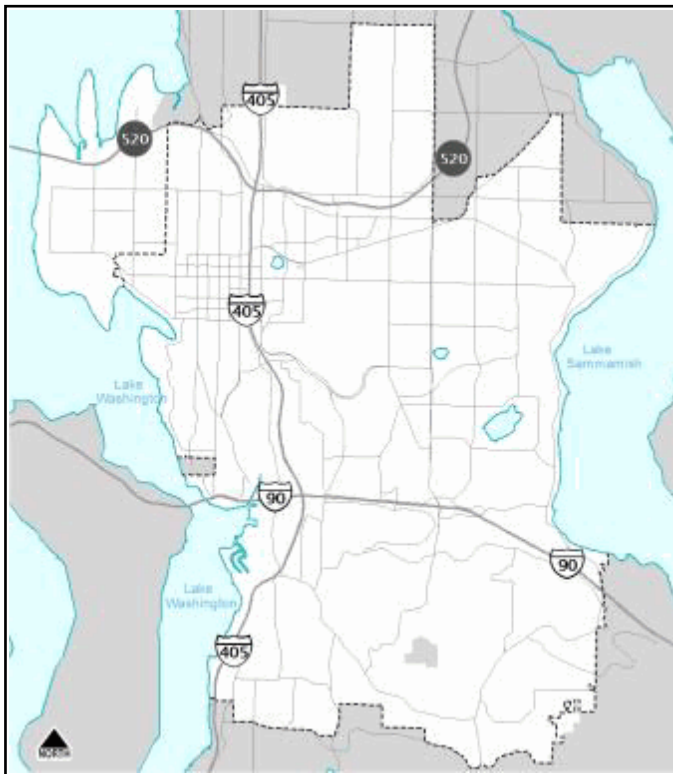
Environmental Impacts

Replacing aging water infrastructure ensures a reliable supply of safe drinking water in sufficient quantity for homes and businesses. Minimizing water system failures means reduced environmental damage such as flooding and erosion, which can damage lakes, streams, and wetlands. Timely replacement of aging water pipes and appurtenances reduces the volume of treated, potable water lost to leakage into the ground or following system breaks.

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	Ongoing	162,281,885

Total Budgetary Cost Estimate: 162,281,885

Means of Financing

Funding Source	Amount
Utility Rates/Fees	162,281,885

Total Programmed Funding: 162,281,885
Future Funding Requirements: 0

Comments

W-67 Pressure Reducing Valve (PRV) Rehabilitation

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

Status: **Ongoing**
 Location: **Water Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
11,609,971	9,401,971	-	-	424,000	433,000	441,000	451,000	459,000

Description and Scope

This ongoing program is to rehabilitate or replace old and deteriorating pressure reducing valves (PRVs) throughout the water service area. The number of pressure reducing valves 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. Replacement criteria include service requirements, safety, maintenance history, age, and availability of replacement parts.

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.

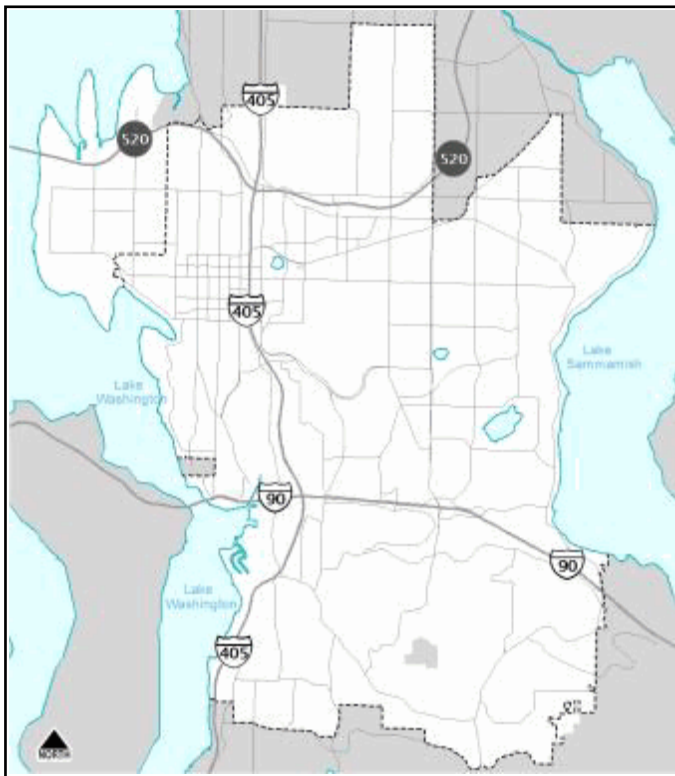
Environmental Impacts

Replacing aging water infrastructure ensures a reliable supply of safe drinking water in sufficient quantity for homes and businesses. Minimizing water system failures means reduced environmental damage such as flooding and erosion, which can damage lakes, streams, and wetlands. Timely replacement of aging water pipes and appurtenances reduces the volume of treated, potable water lost to leakage into the ground or following system breaks.

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	Ongoing	11,609,971

Total Budgetary Cost Estimate: 11,609,971

Means of Financing

Funding Source	Amount
Utility Rates/Fees	11,609,971

Total Programmed Funding: 11,609,971

Future Funding Requirements:

Comments

W-69 Minor (Small) Water Capital Improvement Projects

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

Status: **Ongoing**
 Location: **Water Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
9,451,619	5,967,619	1,546,000	238,000	305,000	357,000	320,000	397,000	321,000

Description and Scope

This ongoing program pays for small improvements to Bellevue's water system to resolve deficiencies, improve efficiencies, or resolve maintenance problems, often in conjunction with other programs such as the Transportation overlay program. Projects are prioritized based on criteria including public safety/property damage, maintenance frequency, operator safety, environmental risk, reliability and efficiency gains, coordination with other city projects or development activity, and level of service impact.

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.

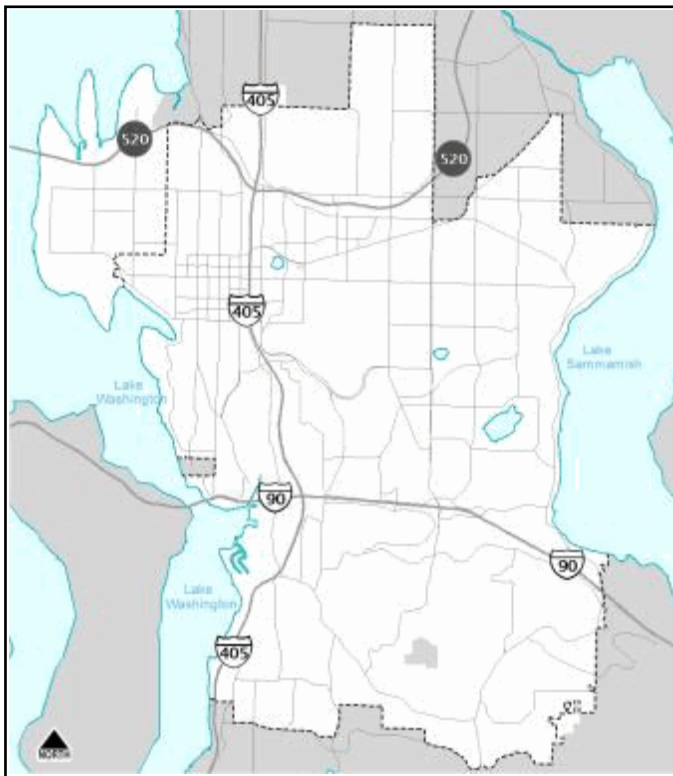
Environmental Impacts

Replacing aging water infrastructure ensures a reliable supply of safe drinking water in sufficient quantity for homes and businesses. Minimizing water system failures means reduced environmental damage such as flooding and erosion, which can damage lakes, streams, and wetlands. Timely replacement of aging water pipes and appurtenances reduces the volume of treated, potable water lost to leakage into the ground or following system breaks.

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	Ongoing	9,451,619

Total Budgetary Cost Estimate: 9,451,619

Means of Financing

Funding Source	Amount
Utility Rates/Fees	9,451,619

Total Programmed Funding: 9,451,619
Future Funding Requirements:

Comments

W-82 Fire Hydrant Standardization

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

Status: **Approved Prior**
 Location: **Water Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
1,877,497	1,614,497	143,000	120,000	-	-	-	-	-

Description and Scope

This program replaces non-standard hydrants that have outdated two-port connections, thereby improving the rate of water flow and reducing response time in the event of a fire. Twenty two two-port hydrants are still in service. Based on the proposed budget, these will all be replaced by 2019.

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

Replacing aging water infrastructure ensures a reliable supply of safe drinking water in sufficient quantity for homes and businesses. Minimizing water system failures means reduced environmental damage such as flooding and erosion, which can damage lakes, streams, and wetlands. Timely replacement of aging water pipes and appurtenances reduces the volume of treated, potable water lost to leakage into the ground or following system breaks.

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	1993 - 2020	1,877,497

Total Budgetary Cost Estimate: 1,877,497

Means of Financing

Funding Source	Amount
Utility Rates/Fees	1,877,497

Total Programmed Funding: 1,877,497
Future Funding Requirements:

Comments

W-85 Reservoir Rehabilitation or Replacement

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

Status: **Ongoing**
 Location: **Water Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
28,517,477	11,950,477	1,284,000	4,585,000	3,470,000	1,570,000	2,127,000	1,833,000	1,698,000

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

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.

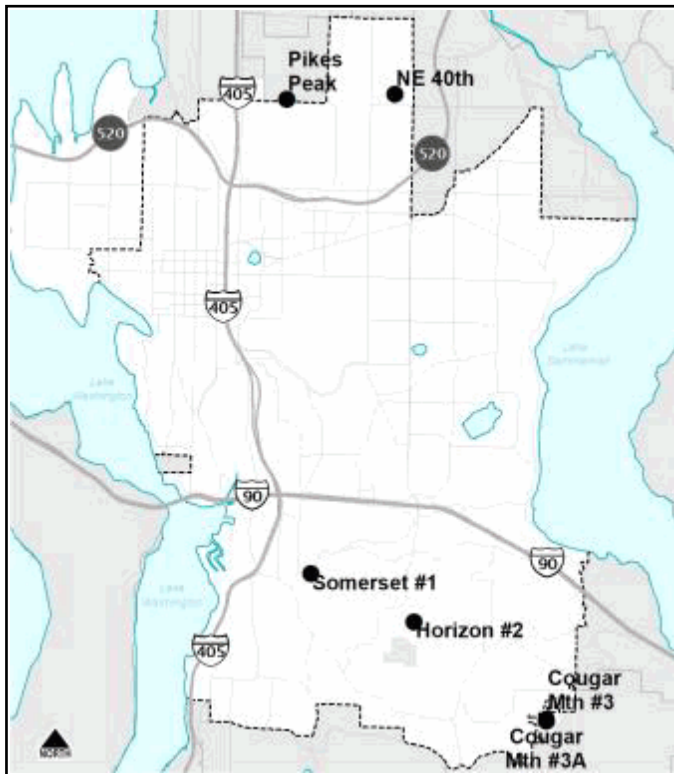
Environmental Impacts

Replacing aging water infrastructure ensures a reliable supply of safe drinking water in sufficient quantity for homes and businesses. Minimizing water system failures means reduced environmental damage such as flooding and erosion, which can damage lakes, streams, and wetlands. Timely replacement of aging water pipes and appurtenances reduces the volume of treated, potable water lost to leakage into the ground or following system breaks.

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	Ongoing	28,517,477

Total Budgetary Cost Estimate: 28,517,477

Means of Financing

Funding Source	Amount
Utility Rates/Fees	28,517,477

Total Programmed Funding: 28,517,477
Future Funding Requirements:

Comments

W-91 Water Pump Station Rehabilitation or Replacement

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

Status: **Ongoing**
 Location: **Water Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
28,664,473	10,209,473	5,224,000	3,348,000	2,908,000	2,554,000	1,045,000	832,000	2,544,000

Description and Scope

This program was established in 2005 to rehabilitate Bellevue's twenty-one water pump stations. Based on a needs assessment of each pump station, improvements can range from basic improvements to complete reconstruction. The rehabilitation work always includes replacing the mechanical and electrical equipment, adds on-site emergency power generation as needed, and resolves structural deficiencies and life/safety issues as needed. In 2015-21 these pump stations will be rehabilitated or replaced: Horizon View #3, Horizon View #1, Cougar Mtn. #3, Pikes Peak, Cougar Mtn. #2, Clyde Hill P.S., Cougar Mtn. #1, and Horizon View #2.

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.

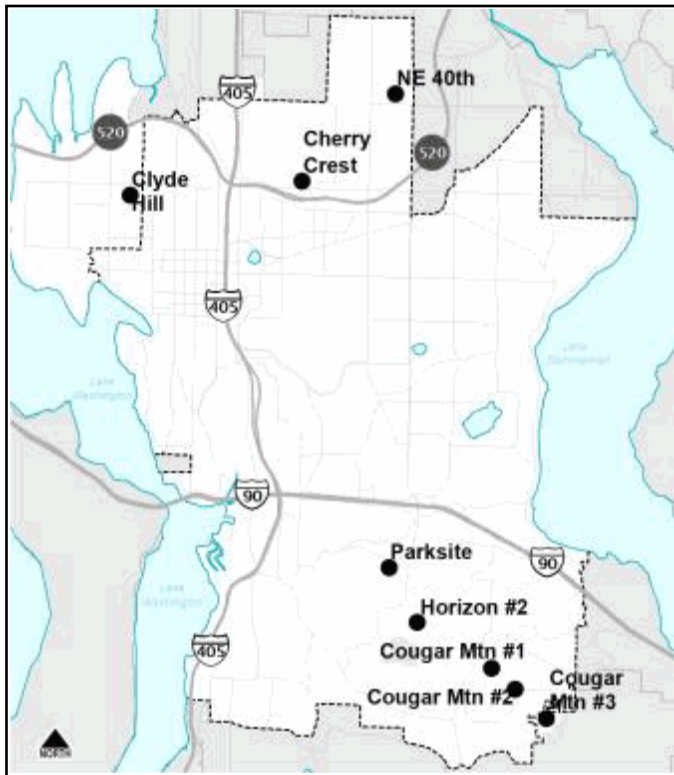
Environmental Impacts

Replacing aging water infrastructure ensures a reliable supply of safe drinking water in sufficient quantity for homes and businesses. Minimizing water system failures means reduced environmental damage such as flooding and erosion, which can damage lakes, streams, and wetlands. Timely replacement of aging water pipes and appurtenances reduces the volume of treated, potable water lost to leakage into the ground or following system breaks.

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	Ongoing	28,664,473

Total Budgetary Cost Estimate: 28,664,473

Means of Financing

Funding Source	Amount
Utility Rates/Fees	28,664,473

Total Programmed Funding: 28,664,473
Future Funding Requirements:

Comments

W-98 Replacement of Large Commercial Water Meters

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

Status: **Ongoing**
 Location: **Water Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
4,612,163	3,649,163	-	120,000	122,000	125,000	195,000	199,000	202,000

Description and Scope

This program systematically replaces older, obsolete high-volume commercial water meters as they wear out. Due to their location and condition, these meters pose safety and access concerns and are generally beyond the ability of O&M crews to change out. Improved performance accuracy is a secondary benefit of the program. This ongoing program replaces approximately 4 commercial meters (and meter vaults, if required) each year.

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.

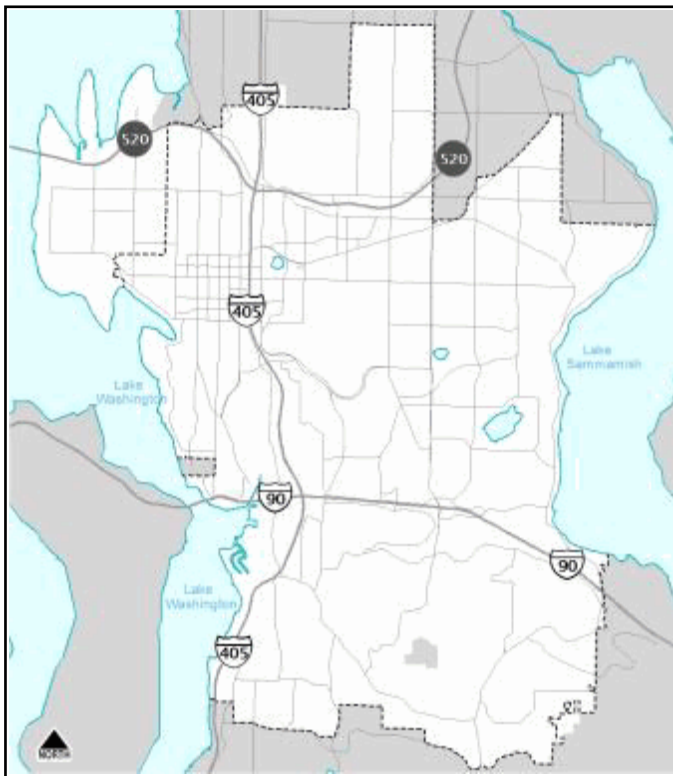
Environmental Impacts

Replacing aging water infrastructure ensures a reliable supply of safe drinking water in sufficient quantity for homes and businesses. Minimizing water system failures means reduced environmental damage such as flooding and erosion, which can damage lakes, streams, and wetlands. Timely replacement of aging water pipes and appurtenances reduces the volume of treated, potable water lost to leakage into the ground or following system breaks.

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	Ongoing	4,612,163

Total Budgetary Cost Estimate: 4,612,163

Means of Financing

Funding Source	Amount
Utility Rates/Fees	4,612,163

Total Programmed Funding: 4,612,163

Future Funding Requirements:

Comments

W-99 Water Service Line and Saddle Replacement Program

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

Status: **Ongoing**
 Location: **Water Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
4,406,500	2,742,500	-	263,000	268,000	274,000	281,000	286,000	292,000

Description and Scope

This program replaces aging and deteriorating water service saddles (the component connecting the customer's water service line to the city-owned water line), and deteriorating water service lines (the pipes between the city's water main to the customer's water meter), most commonly in advance of planned street improvements. Annual expenditures can vary widely depending on the condition of saddles and service lines where street improvement projects are planned. Due to these uncertainties, level funding based on replacement of 100 service/saddles is proposed for each year in the CIP window, recognizing that some years will be over or under spent.

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.

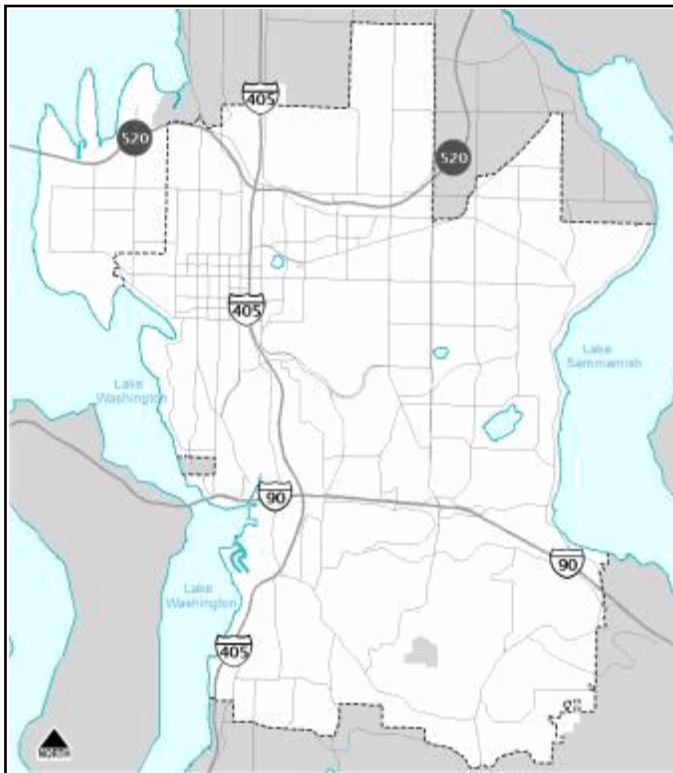
Environmental Impacts

Replacing aging water infrastructure ensures a reliable supply of safe drinking water in sufficient quantity for homes and businesses. Minimizing water system failures means reduced environmental damage such as flooding and erosion, which can damage lakes, streams, and wetlands. Timely replacement of aging water pipes and appurtenances reduces the volume of treated, potable water lost to leakage into the ground or following system breaks.

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	Ongoing	4,406,500

Total Budgetary Cost Estimate: 4,406,500

Means of Financing

Funding Source	Amount
Utility Rates/Fees	4,406,500

Total Programmed Funding: 4,406,500
Future Funding Requirements:

Comments

W-103 Increase Drinking Water Storage Availabilty

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

Status: **Approved Prior**
 Location: **West Operating Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
3,339,086	1,763,086	1,576,000	-	-	-	-	-	-

Description and Scope

This project is for design and construction of facilities to increase the drinking water storage available for anticipated population growth in Downtown, Bel-Red, and Wilburton areas. System improvements will be made in this CIP window to allow transfer of surplus water stored in East Bellevue to the growth areas, assuring emergency storage is available for near-term growth. These improvements include upgrades to transmission mains in NE 8th Street and at SE 7th and 140th Ave SE, and upgrades to system Pressure Reducing Valves. The project also includes analysis of emergency well capacity to supplement regional supply in case of an outage, which may offset or reduce the need for added storage. The 2015 Water System Plan update analyzed required timing and volume as well as siting considerations for storage to meet the needs of planned growth.

Rationale

In the short term, utility capacity will be available without delaying development and redevelopment projects. In the long term, recovering the cost of projects from growth will reduce future rate increases to pay for utility system replacement.

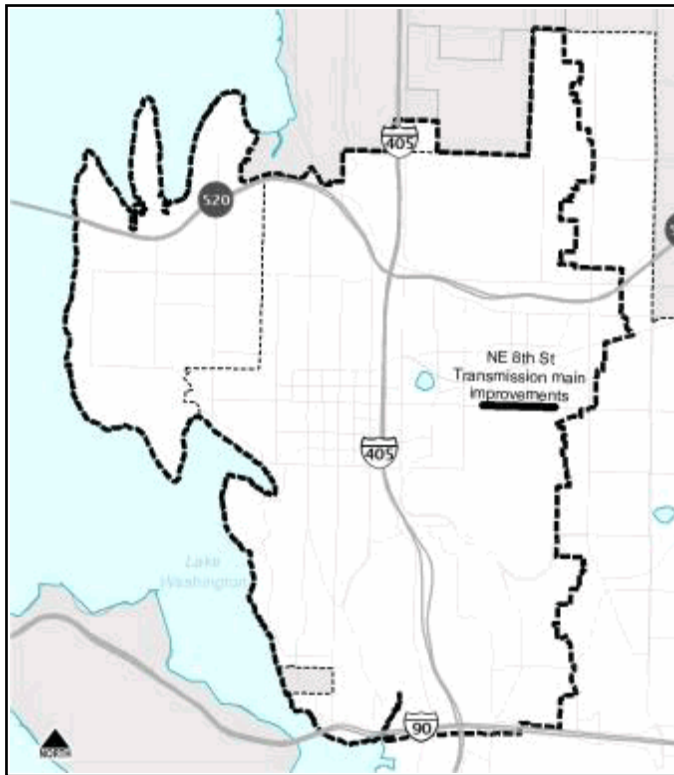
Environmental Impacts

This project ensures a safe, reliable supply of drinking water to homes and businesses as Bellevue grows.

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2009 - 2019	3,339,086

Total Budgetary Cost Estimate: 3,339,086

Means of Financing

Funding Source	Amount
Utility Rates/Fees	3,339,086

Total Programmed Funding: 3,339,086
Future Funding Requirements:

Comments

W-104 New Water Inlet Station

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

Status: **Approved Prior**
 Location: **Water and Sewer Service Areas**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
5,229,000	2,910,000	2,319,000	-	-	-	-	-	-

Description and Scope

This project will construct a new inlet station from the regional water supply system to provide sufficient drinking water for growth in downtown, BelRed, and Wilburton areas. It will also improve drinking water supply reliability (redundancy) to the 200,000 people who will ultimately live and work in these areas. The transmission main improvements of W-103 will improve reliability of water supply in the near term, deferring the need to add inlet station capacity until ~2018-19.

Rationale

In the short term, utility capacity will be available without delaying development and redevelopment projects. In the long term, recovering the cost of projects from growth will reduce future rate increases to pay for utility system replacement.

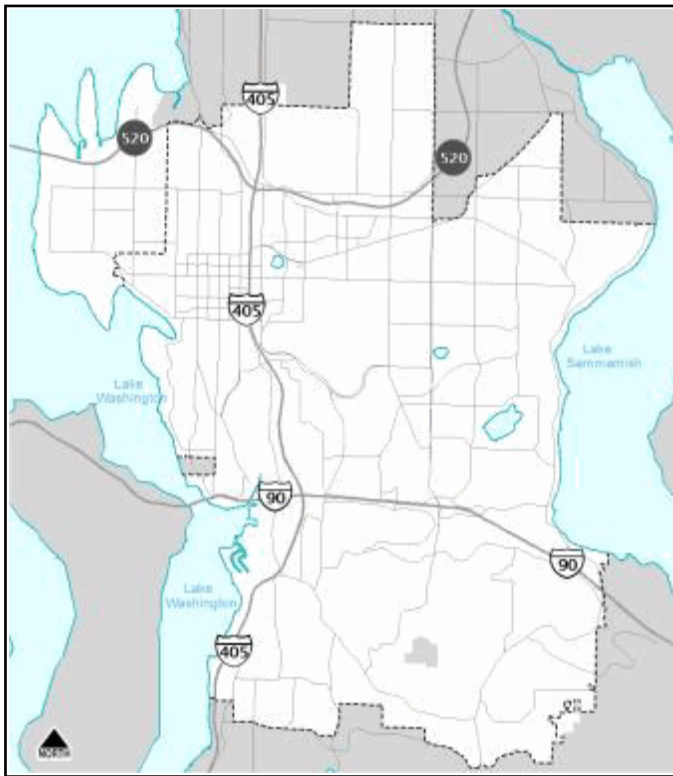
Environmental Impacts

This project ensures a safe, reliable supply of drinking water to homes and businesses as Bellevue grows.

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2017 - 2019	5,229,000

Total Budgetary Cost Estimate: 5,229,000

Means of Financing

Funding Source	Amount
Utility Rates/Fees	5,229,000

Total Programmed Funding: 5,229,000

Future Funding Requirements:

Comments

W-105 Water Facilities for NE Spring Blvd Multi-Modal Corridor

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

Status: **Ongoing**
 Location: **Not Specified**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
655,000	387,000	877,000	226,000	-19,000	-20,000	-260,000	-265,000	-271,000

Description and Scope

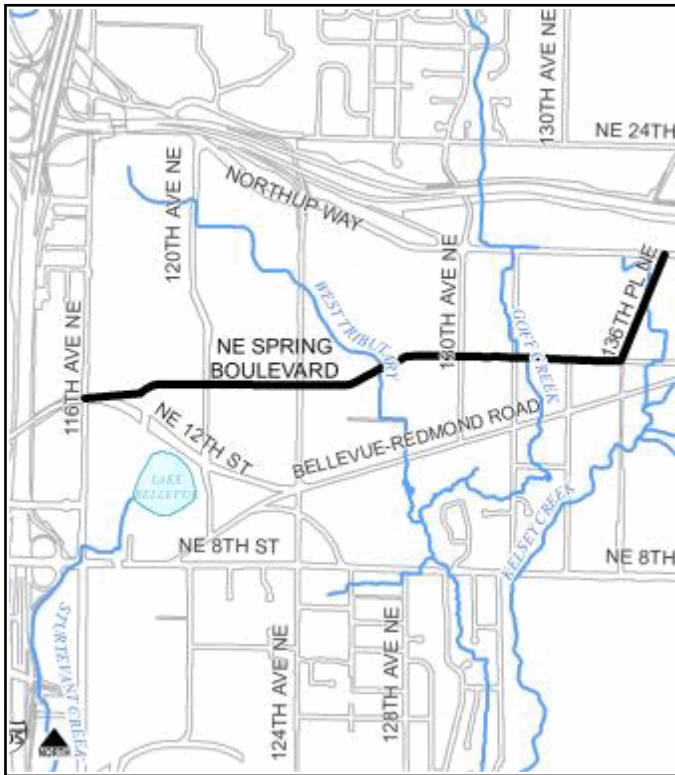
Rationale

Environmental Impacts

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	Ongoing	655,000

Total Budgetary Cost Estimate: 655,000

Means of Financing

Funding Source	Amount
Utility Rates/Fees	655,000

Total Programmed Funding: 655,000

Future Funding Requirements:

Comments

W-105-B Water Facilities for NE Spring Blvd Multi-Modal Corridor Bank

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

Status: **Ongoing**
 Location: **City Hall**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
14,762,902	1,540,957	1,517,135	1,517,135	2,017,135	2,027,135	2,037,135	2,047,135	2,059,135

Description and Scope

This project maintains reserve funds for project W-105, for the design and construction of new water facilities concurrent with the design and construction of the NE 15th Multi-Modal corridor.

Rationale

N/A

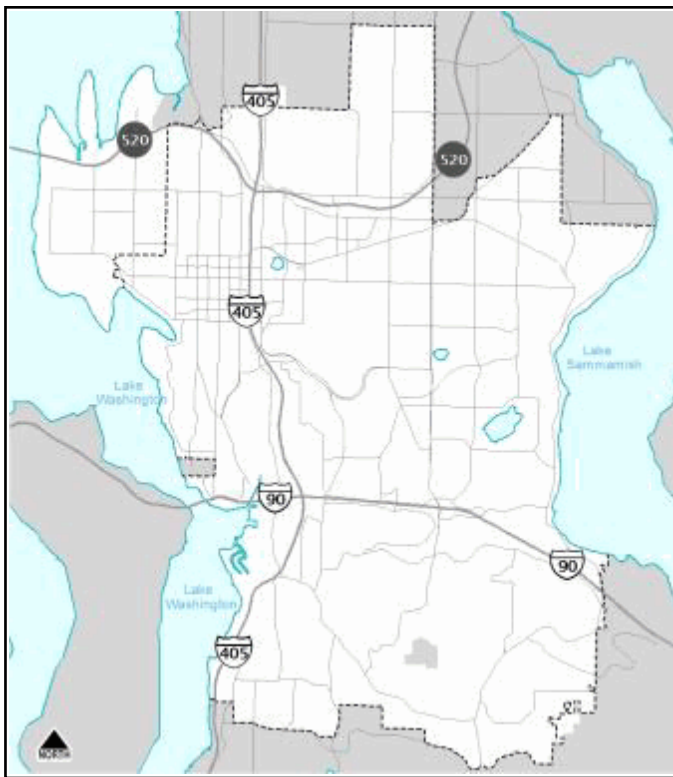
Environmental Impacts

N/A

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	Ongoing	14,762,902

Total Budgetary Cost Estimate: 14,762,902

Means of Financing

Funding Source	Amount
Utility Rates/Fees	14,762,902

Total Programmed Funding: 14,762,902
Future Funding Requirements:

Comments

W-108 Advanced Metering Infrastructure (AMI) Implementation

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

Status: **Approved Prior**
 Location: **Water Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
16,161,800	5,854,800	8,207,000	2,100,000	-	-	-	-	-

Description and Scope

This proposal is for a Utilities CIP Program. Implementation involves: Replacing almost all Utilities meters, total of 39,436 out of 40,804; Replacing half of the meter boxes, approximately 20,000 out of 40,804; Replacing the lids for the other half of the meter boxes, approximately 20,000 lids; Installing Meter Interface Units (MIU); Installing Communication equipment, 100 collectors and 25 repeaters; Implementation of an AMI Meter Data Management Software (MDMS); Systems Integration and Implementation services. This project will be funded 70 percent by water and 30 percent by sewer rates. The budget is based on a 2015 AMI feasibility study. Rapid implementation is planned to realize the maximum benefit from labor savings that will be realized by replacing the current manually-read meters, to minimize the time two systems need to be supported, and to deliver a common service level to all customers as rapidly as possible.

Rationale

Replacement of Bellevue's water meters with AMI technology will immediately result in Financial, Social, and Environmental benefits.
 Financial: Improved billing and meter accuracy, reduced labor costs for meter reading, reduced time between meter reads and bill productions, reduced capital expenditures for meter reader vehicles and inventory, reduced manual processing of data, improved system planning due to availability of local water use data for modeling.
 Social: Increased responsiveness to customers, more accurate and timely billing, reduced turnaround time related to off-cycle reads, ability to manage water use data holistically, rapid leak detection and reporting, improved staff and customer alarms and notifications.
 Environmental: Improved water conservation (less waste) through timely detection of leaks; improved backflow detection (potential for contamination); reduced motor vehicle emissions.

Environmental Impacts

This proposal will result in improved water conservation through prompt leakage detection (due to continuous rather than episodic meter reads) and will reduce the potential for contamination of the public water supply through detection of negative flow. It will reduce motor vehicle emissions since meters will be read remotely via computer rather than from meter reader vehicles driving through Bellevue.

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2017 - 2020	16,161,800

Total Budgetary Cost Estimate: 16,161,800

Means of Financing

Funding Source	Amount
Utility Rates/Fees	16,161,800

Total Programmed Funding: 16,161,800
Future Funding Requirements:

Comments

W-109 Richards Road Inlet Supply Station

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

Status: **Approved Prior**
 Location: **Water Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
500,000	500,000	-	-	-	-	-	-	-

Description and Scope

Richard's Road Inlet Station is a critical facility constructed in 1975 to deliver water from Seattle's regional system to Bellevue. It supplies water directly to the RV300, WD400, WD450, WD340 water pressure zones, and is the source of water to fill the Woodridge Reservoir. The associated pressure reducing valve (PRV) reduces pressure to water that is supplied to the RV300 zone, and also controls flow to the Woodridge reservoir. This critical facility has old components that require increasingly frequent maintenance; the existing mechanical and electrical components are outdated and in need of replacement. Due to the risk and consequence of failure, station replacement is required. This project will include constructing a new inlet meter installation and pressure reducing valve station, and upgrading telemetry equipment at the site. Enhanced telemetry will record rate and volume of water that is supplied from the station, will provide pressure information both of the CESSL side and 300 zone; and will provide power to the vault for the meter, flood alarm, and intrusion. Because the existing inlet station is located on Richards Road, a very busy arterial which makes it access difficult and creates safety hazards for workers, the new station will be located on the eastern side of Richards Road, along a grassy area just east of the existing sidewalk, and the existing station will be abandoned. This project was initiated in W-69 (Minor Water CIP), however alternatives analysis resulted in the recommendation to replace the entire station rather than just internal components. The increase in scope and cost warranted the creation of a separate CIP project.

Rationale

In the short term, this project 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.

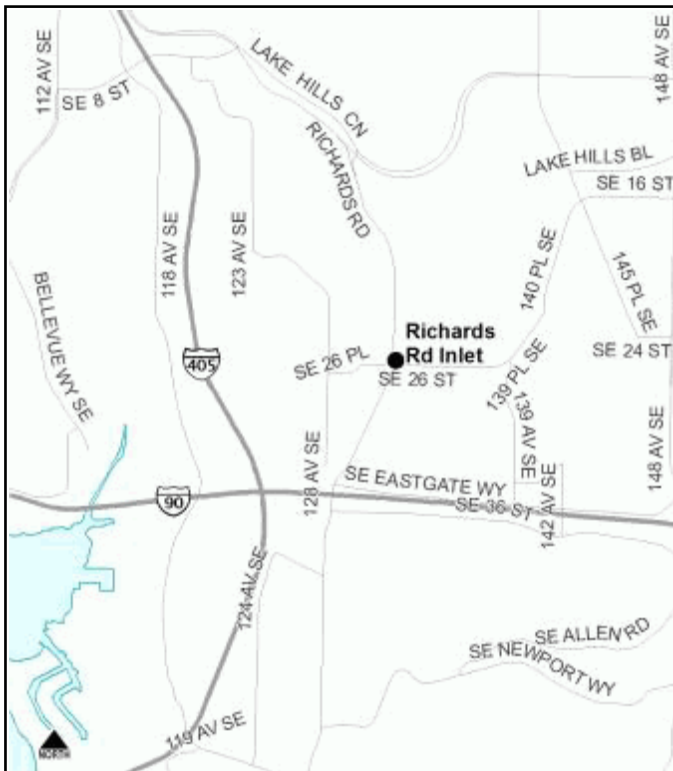
Environmental Impacts

Replacing aging water infrastructure ensures a reliable supply of safe drinking water in sufficient quantity for homes and businesses. Minimizing water system failures means reduced environmental damage such as flooding and erosion, which can damage lakes, streams, and wetlands. Timely replacement of aging water pipes and appurtenances reduces the volume of treated, potable water lost to leakage into the ground or following system breaks.

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2017 - 2017	500,000

Total Budgetary Cost Estimate: 500,000

Means of Financing

Funding Source	Amount
Utility Rates/Fees	500,000

Total Programmed Funding: 500,000
Future Funding Requirements:

Comments

W-110 NE 40th and Enatai Inlet Water Supply Improvement

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

Status: **Approved Prior**
 Location: **Water Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
2,578,000	200,000	416,000	1,698,000	54,000	210,000	-	-	-

Description and Scope

This project is for an alternatives analysis and predesign for improvements at the Enatai and NE 40th Water Supply Inlet stations to improve safety, reduce risk, and renew aging infrastructure. The pre-design work will inform future CIP schedule and budgets. It will allow coordination with the City of Redmond, which benefits from and shares costs for the NE 40th Inlet Supply Station. Design and construction costs are not included in proposed budget. The Water System Plan identified deficiencies including safety standards, poor HVAC controls, and deteriorating electrical components. The NE 40th Inlet meter vault has visible joint deflection; there may be perceived increased risk of a transmission main break.

Rationale

In the short term, this project 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.

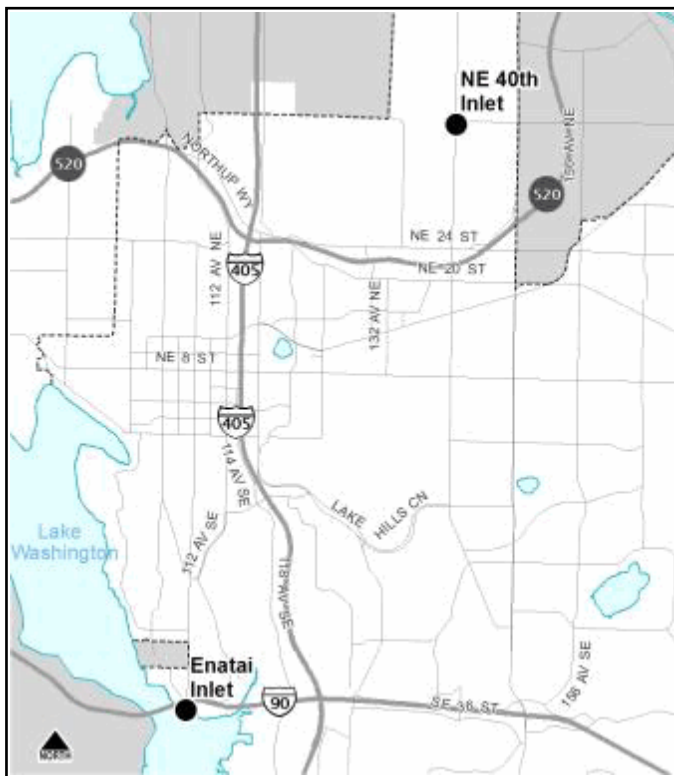
Environmental Impacts

Replacing aging water infrastructure ensures a reliable supply of safe drinking water in sufficient quantity for homes and businesses. Minimizing water system failures means reduced environmental damage such as flooding and erosion, which can damage lakes, streams, and wetlands. Timely replacement of aging water pipes and appurtenances reduces the volume of treated, potable water lost to leakage into the ground or following system breaks.

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2017 - 2022	2,578,000

Total Budgetary Cost Estimate: 2,578,000

Means of Financing

Funding Source	Amount
Utility Rates/Fees	2,578,000

Total Programmed Funding: 2,578,000
Future Funding Requirements:

Comments

W-111 Maintenance and Operations Facility Land Acquisition

Category: N/A
 Department: Utilities

Status: New
 Location: Not Specified

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2019 Budget	FY 2020 Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget
5,333,000	-	5,333,000	-	-	-	-	-	-

Description and Scope

As the City of Bellevue continues to grow, there is a critical need for long range operational facilities planning to ensure that the Utilities Department (Utilities) can meet the community's current and future needs in an efficient and timely manner. The current service locations are functioning at or near capacity, and there is significant risk that they will not be sufficient to meet Utilities' growing operational needs. To address this, Utilities initiated the development of a long range Operations and Maintenance (O&M) Facilities Plan.

Based on the alternatives analysis within the O&M Facilities Plan, property acquisition is being recommended in the 2019-2025 CIP as a first step to site the maintenance facility. While a specific site has not been determined, this proposal establishes a budget of \$8.0 million for property acquisition. The estimated cost will be funded by available year-end 2017 operating reserves in the water (\$5.3M) and sewer utilities (\$2.7M).

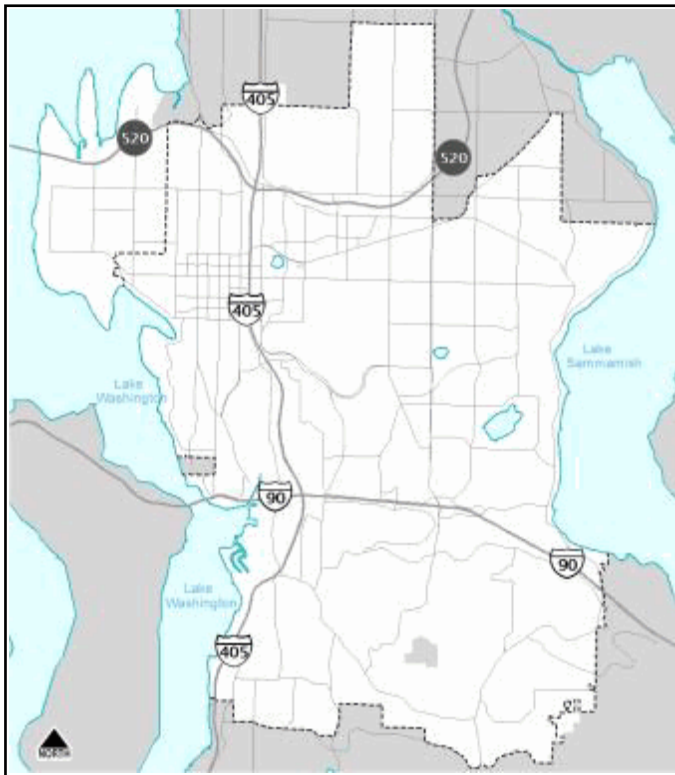
Rationale

Environmental Impacts

Operating Budget Impacts

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

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2017 - 2019	5,333,000

Total Budgetary Cost Estimate: 5,333,000

Means of Financing

Funding Source	Amount
Utility Rates/Fees	5,333,000

Total Programmed Funding: 5,333,000
Future Funding Requirements:

Comments