



2015-2021 Capital Investment Program Plan

Water

The Water Utility owns and operates 619 miles of water distribution and transmission mains, 25 reservoirs with over 40 million gallons of storage, and 22 pump stations. Water is supplied by the Cascade Water Alliance by contractual arrangement with the City of Seattle through the Tolt and Cedar River supply systems. Bellevue's Water Utility serves all of Bellevue as well as the Points Communities and some areas of unincorporated King County.

Capital improvements for the Water Utility are generally based on Bellevue's 2006 *Water Comprehensive Plan*. The Comprehensive Plan identifies system improvements needed to continue to meet the demands of population growth and system aging, and to provide for orderly system expansion and improvements which increase system reliability, efficiency, and maintain desired levels of service.

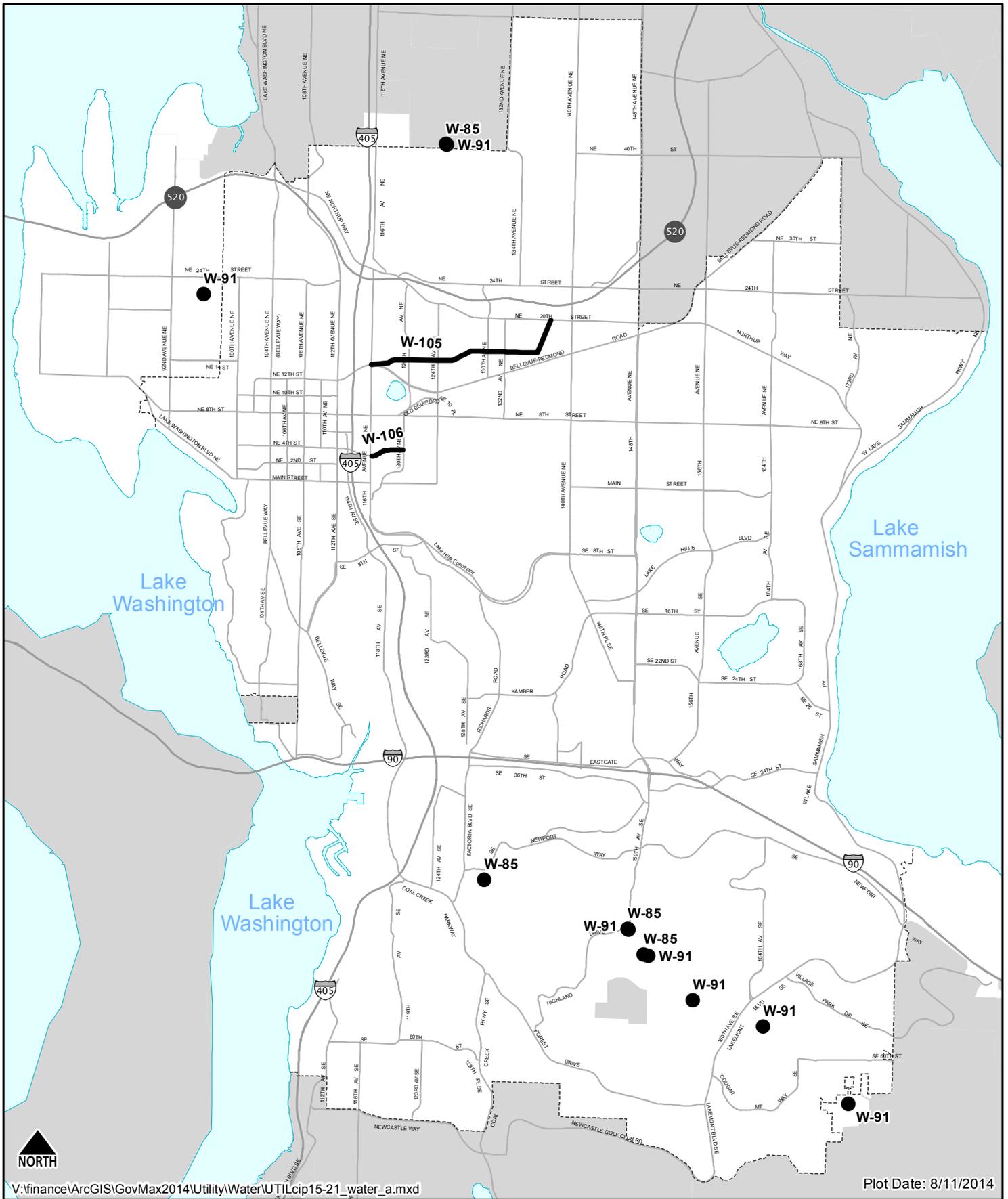
The water system was analyzed to identify pressure, capacity, and storage needs now and for anticipated population growth. Other capital investment projects reflect the increasing resources needed to maintain a high level of service and reliability as the water system ages (infrastructure renewal and replacement).

The 2015-2021 CIP Plan recognizes that significant investments are needed to maintain aging systems and replace components that are reaching the end of their useful life. The *Water Comprehensive Plan* also includes a number of investments that are necessary to meet system capacity and infrastructure renewal needs as a response to growth and demand in the system.

2015-2021 Adopted CIP: Water

Funded CIP Projects

CIP Plan Number	Project Name	\$ in 000s	
		2015-2021 Project Cost	Total Estimated Cost
W-16	Small Diameter Water Main Replacement	60,769	109,938
W-67	Pressure Reducing Valve (PRV) Rehabilitation	2,855	10,495
W-69	Minor (Small) Water Capital Improvement Projects	1,605	6,623
W-82	Fire Hydrant Standardization	621	1,860
W-85	Reservoir Rehabilitation or Replacement	5,949	14,731
W-91	Water Pump Station Rehabilitation or Replacement	13,671	17,032
W-98	Replacement of Large Commercial Water Meters	3,838	5,720
W-99	Water Service Line and Saddle Replacement	1,771	3,708
W-103	Increase Drinking Water Storage Availability for West Op Area	2,993	3,322
W-104	New Water Inlet Station	5,229	5,229
W-105	Water Facilities for NE 15th Multi Modal Corridor	1,648	2,688
W-106	Water Facilities for NE 4th Extension	295	494
W-107	East Link Utility Relocations	2,630	2,630
	TOTAL WATER	\$ 103,874	\$ 184,469



2015-2021 Water CIP Projects

Note: Projects W-16, W-67, W-69, W-82, W-98, W-99, W-103, and W-104 are not shown as they will be located throughout the service area. W-107 located throughout the East Link corridor.

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W-16 Small Diameter Water Main Replacement

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

Status: **Ongoing**
 Location: **Various 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
109,937,885	49,168,885	6,119,000	7,708,000	8,503,000	9,326,000	9,513,000	9,703,000	9,897,000

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/yr 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).

Rationale

Water pipeline replacement rate will increase to 5 miles per year (over a ten-year period) by 2018. The 5 miles/year pipe replacement rate is required to achieve the Asset Management Program (AMP) goal of cost effective system renewal and replacement while maintaining acceptable customer service levels. Experience has shown that small diameter AC pipes have the shortest life. AC pipe fails catastrophically, often causing significant damage to nearby properties and triggering more breaks in nearby AC pipes.

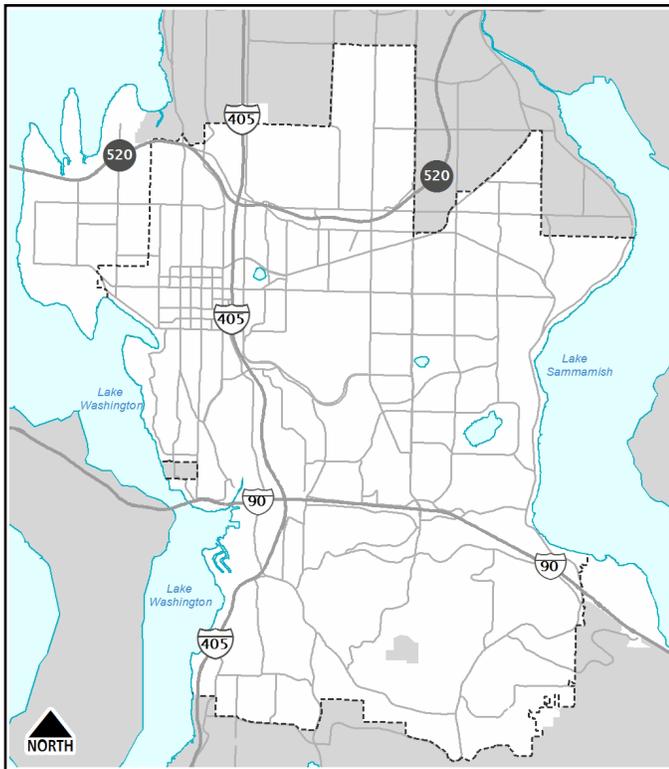
Small diameter AC pipe accounts for a disproportionate share of water main breaks. Besides size and material, soil corrosiveness, moisture content, and original construction quality affect pipe life. As budgeted, most 4-inch AC pipe will be replaced by 2017, reaching a maximum pipe age of 61 years. Replacement of 6-inch AC main will follow, over a 30 year period. Larger diameter mains would be replaced before they reach 125 years old. Pipes of other materials (ductile and cast iron, clay) will also be replaced as needed. The potential for main breaks will be significantly reduced, minimizing service disruptions to customers and costly emergency repairs, and reducing claims exposure.

Environmental Impacts

Replacement of Water mains less than eight inches in diameter generally have minimal impact to the environment, unless they are in or adjacent to sensitive areas. Proactive system replacement before failure reduces erosion and other environmental damage.

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	1982 - 2021	109,937,885
Total Budgetary Cost Estimate:		109,937,885

Means of Financing

Funding Source	Amount
Judgements/Settlements	42,000
Miscellaneous Revenue	769,000
Utility Rates/Fees	109,126,885

Total Programmed Funding: 109,937,885
Future Funding Requirements:

Comments

W-67 Pressure Reducing Valve (PRV) Rehabilitation

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

Status: **Ongoing**
 Location: **Various 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
10,494,971	7,639,971	433,000	384,000	392,000	399,000	407,000	416,000	424,000

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

Bellevue's water system includes 142 PRVs that supply water throughout Bellevue. During normal operation they sustain the water pressure to homes and businesses in service areas of similar elevation, known as 'water pressure zones'. When they sense a drop in system pressure, these valves open wide to provide additional water to fight fires or in response to other supply deficiencies.

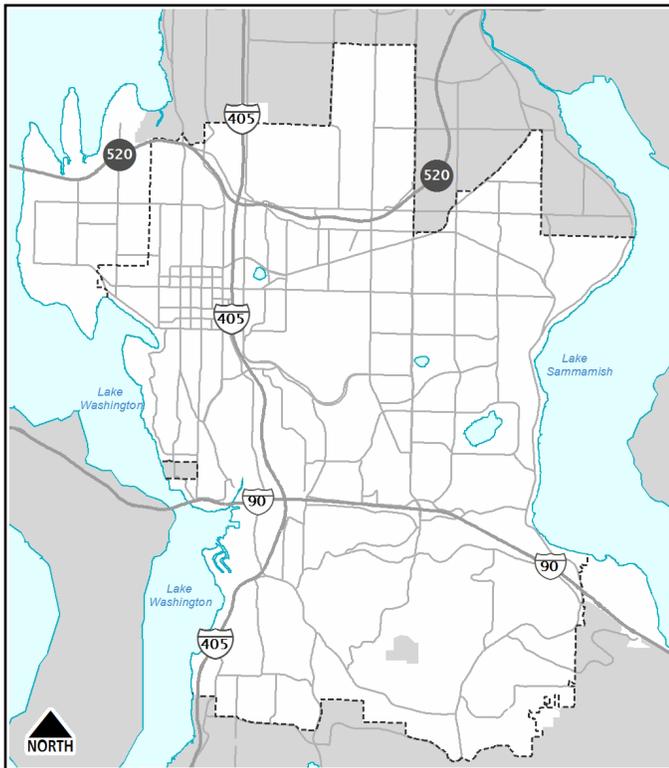
PRVs require rehabilitation or replacement every 35-45 years, as parts become obsolete and mechanical wear leads to unreliable performance. The oldest PRVs are in small, deteriorating vaults that make the increased maintenance and repair work problematic, are too small to accommodate newer valves and fittings, and in some cases raise safety concerns for personnel. The program budget funds replacement of about 3 PRVs/yr; the oldest PRV will be no more than 45 years old at this replacement rate.

Environmental Impacts

Projects are generally confined to a small area within an existing utility vault, or may involve replacement of the vault, and so generally have little if any environmental impact during construction. Replacing PRVs before failure reduces the chance of erosion or other environmental damage from water leakage.

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	1991 - 2021	10,494,971
Total Budgetary Cost Estimate:		10,494,971

Means of Financing

Funding Source	Amount	
Miscellaneous Revenue	15,000	
Utility Rates/Fees	10,479,971	
Total Programmed Funding:		10,494,971
Future Funding Requirements:		

Comments

W-69 Minor (Small) Water Capital Improvement Projects

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

Status: **Ongoing**
 Location: **Various 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
6,622,619	5,017,619	269,000	212,000	216,000	220,000	225,000	229,000	234,000

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

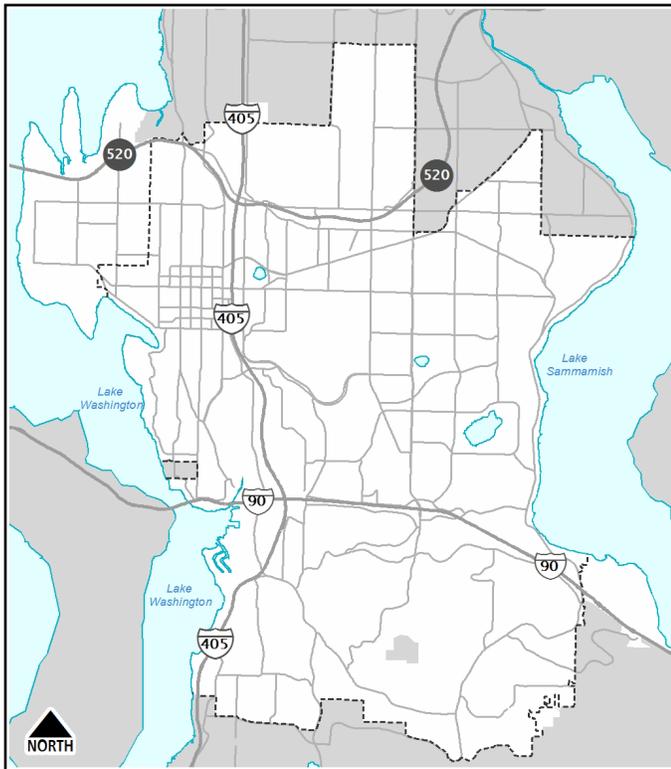
These improvements correct unanticipated minor deficiencies or maintenance problems of the existing system. This program allows the City to efficiently maintain and upgrade its water system by coordinating minor improvements with other City projects and maintenance activities. These projects are too small to justify their own CIP projects, don't fit within the scope of other water CIP programs, and sometimes cannot be anticipated. The budget is based on average historical need.

Environmental Impacts

The environmental impacts of these small system improvements are generally negligible. Overall the program resolves deficiencies which may avoid a system failure and associated environmental damage due to escaping water.

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	1991 - 2021	6,622,619
Total Budgetary Cost Estimate:		6,622,619

Means of Financing

Funding Source	Amount
Miscellaneous Revenue	154,000
Utility Rates/Fees	6,468,619

Total Programmed Funding: 6,622,619
Future Funding Requirements:

Comments

W-82 Fire Hydrant Standardization

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

Status: **Ongoing**
 Location: **Various 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
1,859,965	1,238,965	-	58,000	309,000	254,000	-	-	-

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

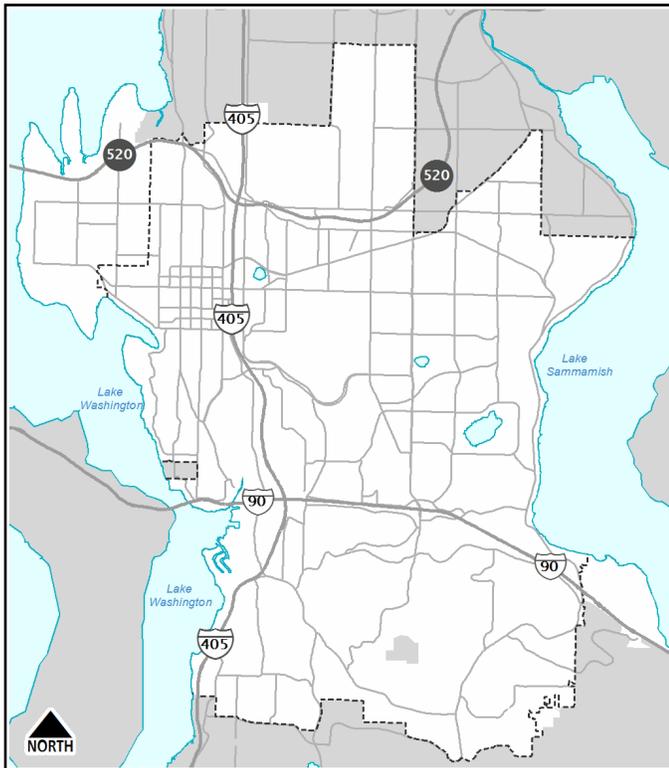
This program was recommended in the 1992 Water Comprehensive Plan and subsequent Plan Updates. Phase 1 of this project improved fire protection within the water service area where hydrant spacing limited fire protection. The current phase (2) of this project replaces non-standard two-port hydrants to improve available fireflow and response time in the event of a fire. Two-port hydrants can provide only 600 gpm. Three-port hydrants (the current standard) have a 1,250 gpm flow capacity.

Environmental Impacts

Environmental impacts of hydrant standardization are anticipated to be insignificant. Standard hydrants may improve fire response time, in the event of a fire, reducing the environmental impacts of a fire.

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	1993 - 2018	1,859,965
Total Budgetary Cost Estimate:		1,859,965

Means of Financing

Funding Source	Amount	
Miscellaneous Revenue	107,000	
Utility Rates/Fees	1,752,965	
Total Programmed Funding:		1,859,965
Future Funding Requirements:		

Comments

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

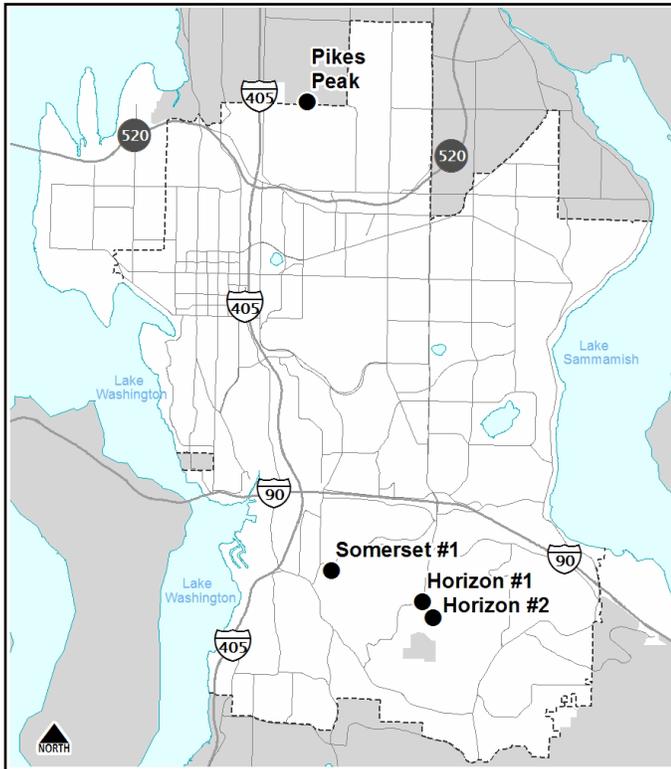
Major upgrades have been completed at seven of the 12 reservoirs identified for upgrade in the 1993 assessment. The improvements reduce life safety risk and reduce economic risk during and following seismic events. The remaining five will be completed by 2021. A study of the other reservoirs will determine 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

W-91 Water Pump Station Rehabilitation or Replacement

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

Status: **Ongoing**
 Location: **Various 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
17,032,238	3,361,238	2,477,000	2,188,000	2,186,000	2,010,000	634,000	1,274,000	2,902,000

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

Thirty five percent of all water used in Bellevue passes through one or more of the twenty-one pump stations, amounting to over two billion gallons of water per year. Many stations are approaching the expected industry-standard life of 25-30 years for mechanical and electrical equipment. As station components age, reliable water supply for domestic and commercial use, and to fight fires, is compromised. There is increased risk of sudden failure, requiring emergency response and higher cost repair. O&M costs increase, and parts become obsolete.

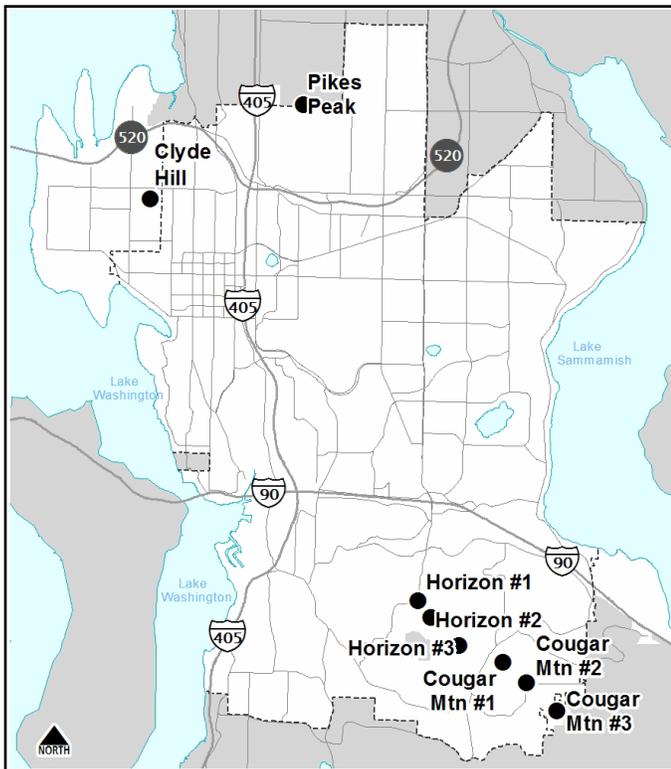
Based on an initial consultant evaluation, the Utility should rehabilitate one pump station per year until the highest priority pump stations have been completed. The proposed budget will accomplish this recommendation. Cost estimates range from \$400,000 to over \$4,000,000 per station.

Environmental Impacts

Most work will be within the confines of the existing pump station buildings, therefore no impacts are anticipated.

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2005 - 2021	17,032,238
Total Budgetary Cost Estimate:		17,032,238

Means of Financing

Funding Source	Amount
Utility Rates/Fees	17,032,238
Total Programmed Funding:	17,032,238
Future Funding Requirements:	

Comments

W-98 Replacement of Large Commercial Water Meters

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

Status: **Ongoing**
 Location: **Various 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
5,720,308	1,882,308	581,000	516,000	527,000	537,000	548,000	559,000	570,000

Description and Scope

This program systematically replaces older, obsolete high-volume commercial water meters (3" and larger) 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

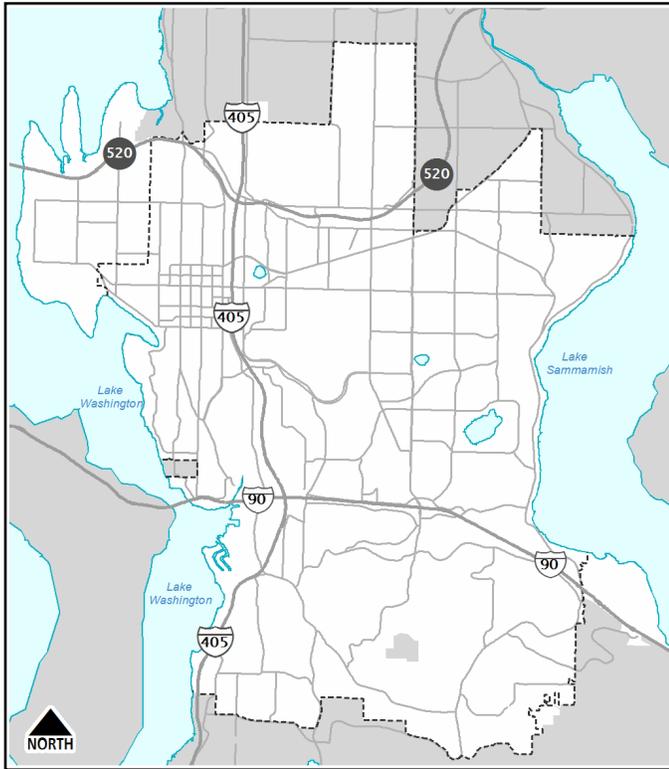
A 2003 Water Loss Study identified that older commercial meters 3-inches and larger may significantly under-register flows passing through them, and become less accurate over time. There are 279 of these meters in our system out of over 35,000 total meters. These 3-inch and larger meters account for nearly 30% of the total volume of water sold. Water meters typically begin to under-record usage when they reach 10-20 years old. Of Bellevue's 279 commercial meters, less than 100 were installed in the past 10 years; more than 40 are older than 25 years. The revenue lost by the meter inaccuracies affects both the water and sewer utilities, since sewer rates are based on winter water usage. This investment ensures equitable water charges by accurately measuring the water consumed. This results in more accurate rate allocation among user classes (residential and commercial customers), and reduces unaccounted (and non-revenue producing) water. A secondary program benefit is to resolve safety issues at 75 of the meters, which cannot currently be read remotely. Many of the oldest meters are in vaults which need to be replaced to accommodate the new meters, and to meet current safety/access standards. Vault replacement adds to the complexity and cost. The current budget funds replacement of 3-4 meters/year for locations where the vault must be replaced.

Environmental Impacts

Replacement of large meters often involves replacement of the vault to meet the design requirements of new meters and current safety and operational standards. However, in most cases there is no environmental impact associated with replacement of meter and vault.

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2005 - 2021	5,720,308
Total Budgetary Cost Estimate:		5,720,308

Means of Financing

Funding Source	Amount	
Utility Rates/Fees	5,720,308	
Total Programmed Funding:		5,720,308
Future Funding Requirements:		

Comments

W-99 Water Service Line and Saddle Replacement Program

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

Status: **Ongoing**
 Location: **Various 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
3,707,932	1,936,932	237,000	243,000	248,000	253,000	258,000	263,000	269,000

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

The City is responsible for maintaining approximately 33,000 water services and saddles. Varying soil conditions result in highly variable service life. The average expected life is 40-50 years with newer stainless steel saddles expected to last at least 85 years. Saddle and service line failures require emergency response, result in customer water service disruption until the line is repaired, and can damage roadways and private property. This program addresses the increasing need for replacement of aging and deteriorating service saddles and associated service lines. Specific projects will be identified through a service saddle condition assessment program (proactive) or by actual saddle failure (reactive).

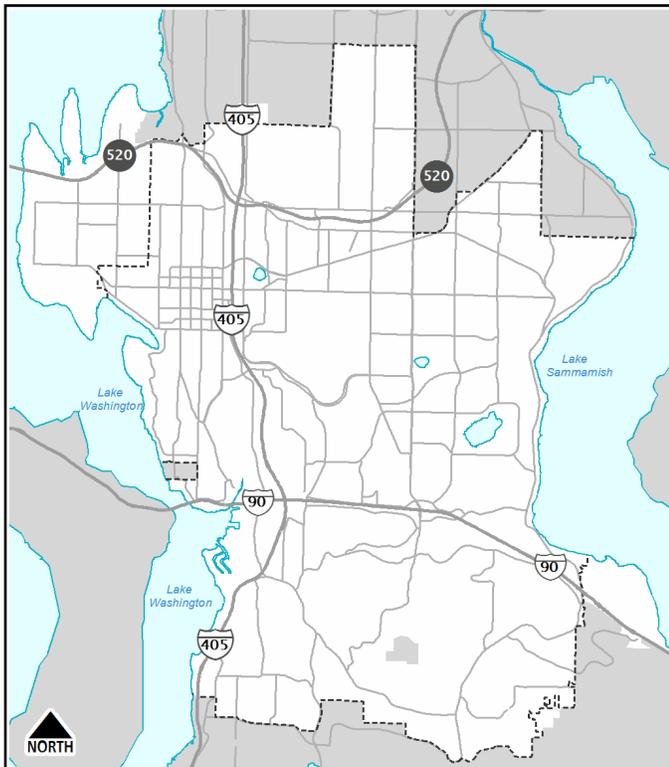
The program provides the means for a more proactive approach towards maintaining the function of water service saddles and service lines. It supports consistent long term customer service levels by reducing the number of service saddle failures and resulting service interruptions. The result will be increased customer satisfaction; reduced service interruptions; and reduced increases in claims as the system ages. The project meets the Utility's CIP program objectives of improved reliability & integrity of the Utility's infrastructure; helps maintain the high level of customer service, and promotes fiscal stewardship by reducing potential liability from claims resulting from service line or saddle failure.

Environmental Impacts

There is generally no environmental impact associated with replacement of water service lines and saddles.

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2005 - 2021	3,707,932
Total Budgetary Cost Estimate:		3,707,932

Means of Financing

Funding Source	Amount
Utility Rates/Fees	3,707,932

Total Programmed Funding: 3,707,932
Future Funding Requirements:

Comments

W-103 Increase Drinking Water Storage Availability for West Operating Area

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

Status: **Approved and Begun**
 Location: **Not yet determined**

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
3,321,547	328,547	134,000	317,000	755,000	440,000	1,347,000	-	-

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 will analyze required timing and volume as well as siting considerations for storage to meet the needs of planned growth. Since construction of storage has been deferred until beyond this CIP window, costs shown are significantly reduced from the last CIP budget.

Rationale

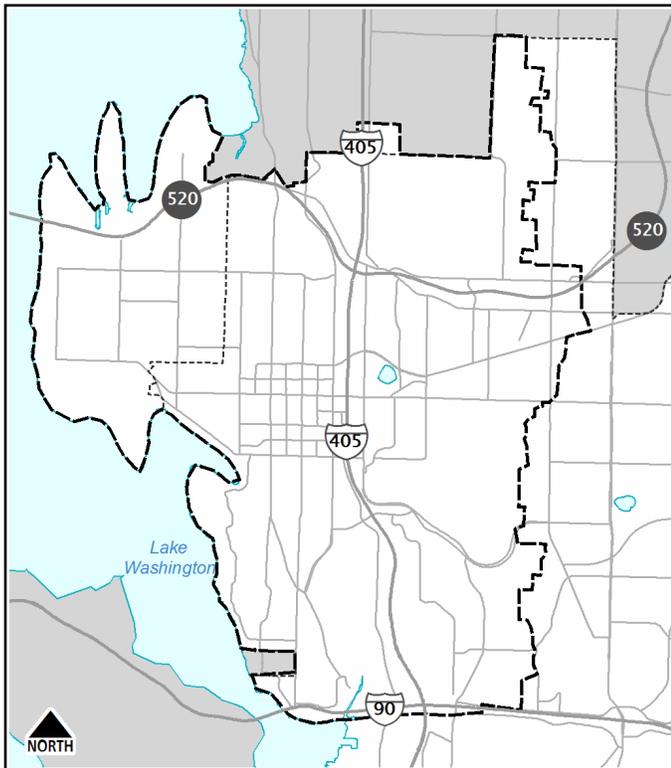
Bellevue's 2006 Water Comprehensive Plan identified the need for additional drinking water storage by 2015 for emergencies, fire protection, and equalization (daily usage) to serve anticipated population growth in Downtown, Bel-Red, and Wilburton areas. State regulations establish the required volume of water storage. If such storage is not provided, mandatory water use restrictions would be required. Subsequent analysis identified system improvements to allow movement of water from east to west Bellevue, which can provide the mandated emergency storage for anticipated population growth in this CIP window. Additional storage will likely still be needed beyond this CIP window.

Environmental Impacts

Environmental impacts will be evaluated as part of the design for each project. Any impacts are expected to be minimal and limited to the period of construction.

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2012 - 2019	3,321,547
Total Budgetary Cost Estimate:		3,321,547

Means of Financing

Funding Source	Amount
Utility Rates/Fees	3,321,547

Total Programmed Funding: 3,321,547
Future Funding Requirements:

Comments

W-104 New Water Inlet Station

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

Status: **Approved and Begun**
 Location: **Not yet determined**

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
5,229,000	-	-	-	-	637,000	2,273,000	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, Bel-Red, 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 ~2019-20.

Rationale

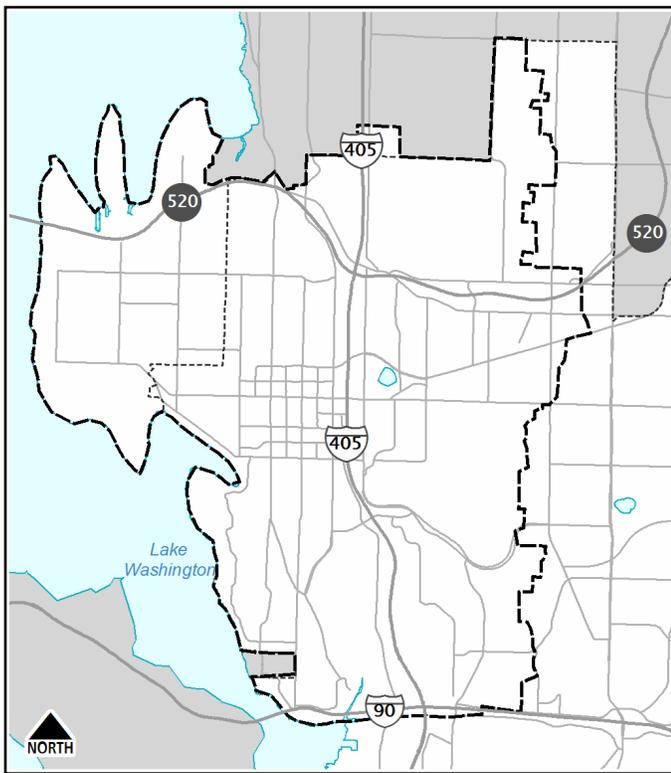
Bellevue's drinking water comes from regional water supply lines that run through Bellevue. Water can be accessed only through inlet stations, which house the pipes, valves and meters that feed drinking water into Bellevue's water system. Bellevue's 2006 Water Comprehensive Plan forecasted the need for additional water supply to serve these areas. The 2015 Water System Plan update will evaluate the optimal location and confirm the required timing for construction of the new inlet. The inlet will improve drinking water supply reliability by adding a third major water supply path to ensure adequate water supply in the event that one station is out of service. That portion of the project for capacity increase would be recovered through connection charges.

Environmental Impacts

Environmental impacts have not yet been evaluated, but are expected to be minimal.

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2015 - 2020	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: **Approved and Begun**
 Location: **NE 15th St from 116th Ave NE to 136th PI NE**

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
2,687,937	1,039,937	220,000	226,000	231,000	236,000	240,000	245,000	250,000

Description and Scope

This project provides funds for the design and construction of new water facilities concurrent with the design and construction of the NE 15th Multi-Modal corridor. The corridor will consist of a new street, bikeways, pathways, and the new East Link light rail. This project will eventually design and construct approximately 2 miles of 12 and 16 inch water main. Absent better data, costs are shown spread throughout the CIP window, and are presumed to extend well beyond 2030. The project schedule will be revised when better information is available about road improvement schedules.

Rationale

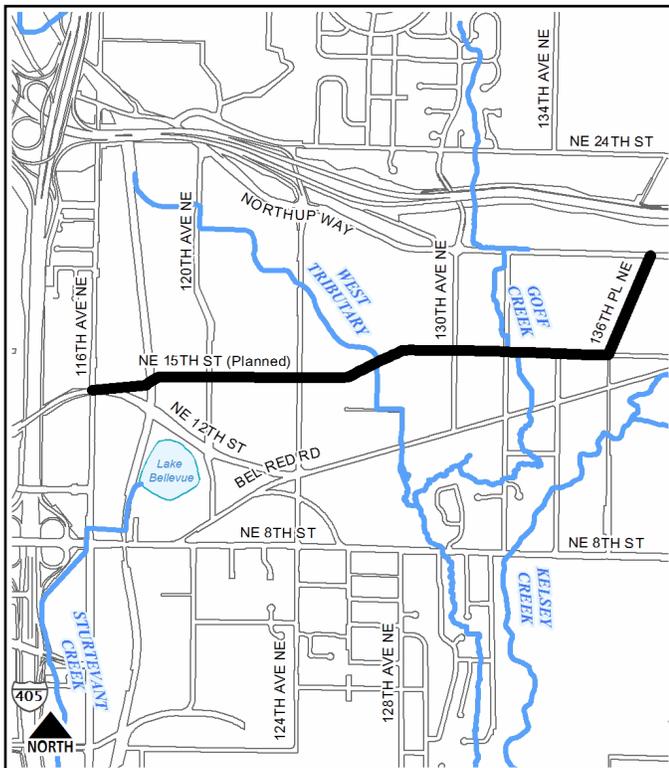
Water pipes will be needed to provide utility services to properties adjacent to the new NE 15th Multi Modal Corridor. Collaboration with the Transportation Department will occur to ensure the design is completed in coordination with the street design. This project will ensure water facilities are ready for construction when resources to build the corridor are secured. In the long term, this project will assure utilities that are foundational to eventual construction of this corridor. The utility investment associated with redevelopment of the Bel-Red Corridor will be recouped via connection charges collected from benefited properties when they redevelop.

Environmental Impacts

The environmental impacts and State Environmental Protection Act (SEPA) requirements will be determined during the design process with the Transportation Department, but are expected to be minimal and incidental to construction of the corridor.

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2011 - 2021	2,687,937
Total Budgetary Cost Estimate:		2,687,937

Means of Financing

Funding Source	Amount
Utility Rates/Fees	2,687,937

Total Programmed Funding: 2,687,937
Future Funding Requirements:

Comments

W-106 Water Facilities for NE 4th Street Extension

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

Status: **Approved and Begun**
 Location: **NE 4th St Extension from 116th Ave NE to 120th Ave NE**

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
493,723	198,723	206,000	89,000	-	-	-	-	-

Description and Scope

This project will design and construct approximately 1,400 feet of new 16 inch watermain within the new NE 4th Street right-of-way.

Rationale

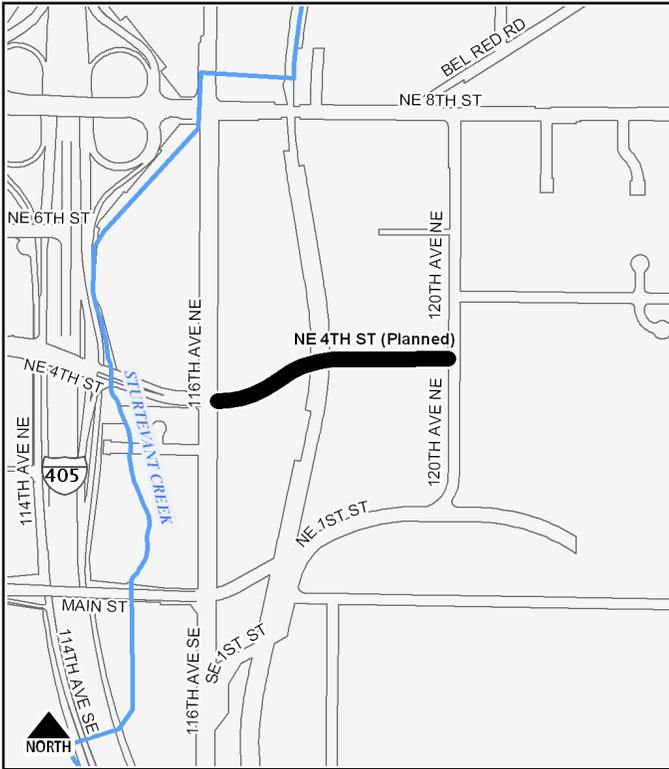
This project provides a rare opportunity to strengthen the capability of the water system, by installing a new water main crossing through the BNRR right-of-way in conjunction with the new road. This project will strengthen water system links so that water can be delivered more easily to downtown Bellevue and approximately 20% of the utility's residential customers. It will also add redundancy in case any one of the mains that cross the railroad need to be taken out of service. Collaboration between Transportation and Utilities will occur to ensure the design and construction of utility facilities is completed in coordination with street design and construction.

Environmental Impacts

The environmental impacts and State Environmental Protection Act (SEPA) requirements will be determined during the design process with the Transportation Department, but are expected to be minimal and incidental to construction of the new road.

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2011 - 2016	493,723

Total Budgetary Cost Estimate: 493,723

Means of Financing

Funding Source	Amount
Utility Rates/Fees	493,723

Total Programmed Funding: 493,723

Future Funding Requirements:

Comments

W-107 Sound Transit East Link Corridor within Bellevue City Limits

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

Status: **New**
 Location: **East Link Corridor**

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
2,630,000	-	2,630,000	-	-	-	-	-	-

Description and Scope

This proposal is for funding to pay the depreciated value of aging infrastructure replaced by new facilities as a result of the need to relocate water, wastewater, and stormwater pipelines to accommodate Sound Transit's (ST) East Link light rail project.

Rationale

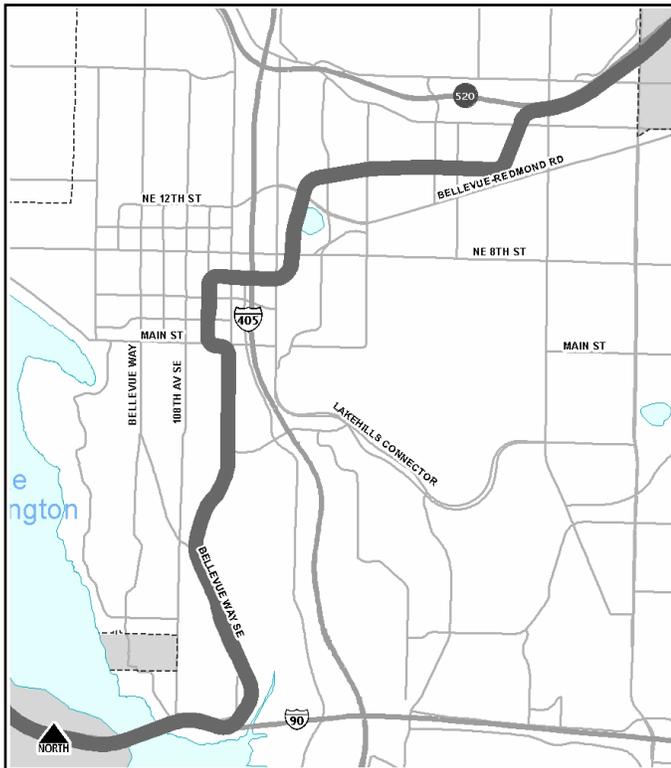
East Link is a voter approved \$2.5 billion extension of light rail transit that will connect Bellevue with Overlake, Mercer Island, and Seattle. This proposal is for the Utility Fund cost associated with relocating water, wastewater, and stormwater pipelines that will conflict with the East Link rail system construction.

Environmental Impacts

This proposal supports a Healthy and Sustainable Environment by designing facilities that will ensure a continued supply of clean drinking water; reliable, safe wastewater removal; and that surface water run-off from rain and storms is controlled to minimize the impacts of high flows and flooding on people, property, and the environment. (Water and Natural Environment). Well-designed utility facilities minimize the opportunities for wastewater and stormwater pipe failures, protecting streams, wetlands, and lakes from pollution and erosion. (Natural Environment).

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2015 - 2015	2,630,000

Total Budgetary Cost Estimate: 2,630,000

Means of Financing

Funding Source	Amount
Utility Rates/Fees	2,630,000

Total Programmed Funding: 2,630,000

Future Funding Requirements:

Comments

