

Introductory Comments

The Water Utility owns and operates 619 miles of water distribution and transmission mains, 27 reservoirs with over 41 million gallons of storage, and 23 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 virtually all of Bellevue as well as some neighboring communities and a small area of unincorporated King County.

Capital improvements for the Water Utility are generally based on Bellevue's Adopted 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 a guide for orderly system expansion and improvements which increase system reliability, efficiency, and level of service.

The water system was analyzed by computer model to identify pressure, capacity, and storage needs now and for anticipated population growth. Other capital investment projects reflect the increasing resource needed to maintain a high level of service and reliability as the water system ages (infrastructure renewal and replacement). Projects are identified to address proposed improvements to state highway facilities through Bellevue which will require relocation of existing city utility facilities, and new state and/or federal regulations require ongoing new investment to assure water quality.

The 2009-2015 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 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.

2009-2015 Adopted CIP: Water

Base CIP Projects

CIP Plan Number	Project Name	Project Status	\$ in 000s	
			2009-2015 Project Cost	Total Estimated Cost
W-16	Small Diameter Water Main Replacement	O	\$35,980	\$57,812
W-67	Pressure Reducing Valve (PRV) Rehabilitation	O	4,509	7,896
W-68	Water Service Extension	O	1,724	4,167
W-69	Minor Water Capital Improvement Projects	O	1,700	5,106
W-82	Fire Hydrant Improvements	O	437	1,626
W-85	Structural/Seismic Reservoir Rehabilitation	O	4,389	12,746
W-91	Water Pump Station Rehabilitation	O	9,088	10,026
W-92	Reservoir Water Quality Upgrades	AB	227	708
W-98	Replacement of Large Commercial Water Meters	O	2,360	3,318
W-99	Water Service Line and Saddle Replacement Program	O	1,418	1,856
W-101	Relocate Water WSDOT I-405/SR 520 Braids	N	563	563
W-102	Relocate Water for WSDOT 520 Expansion	N	474	1,401
W-103	Increase Reservoir Storage for Downtown	N	1,241	6,825
W-104	Increase Water Supply for West Bellevue	N	658	5,544
TOTAL WATER			<u>\$64,768</u>	<u>\$119,594</u>

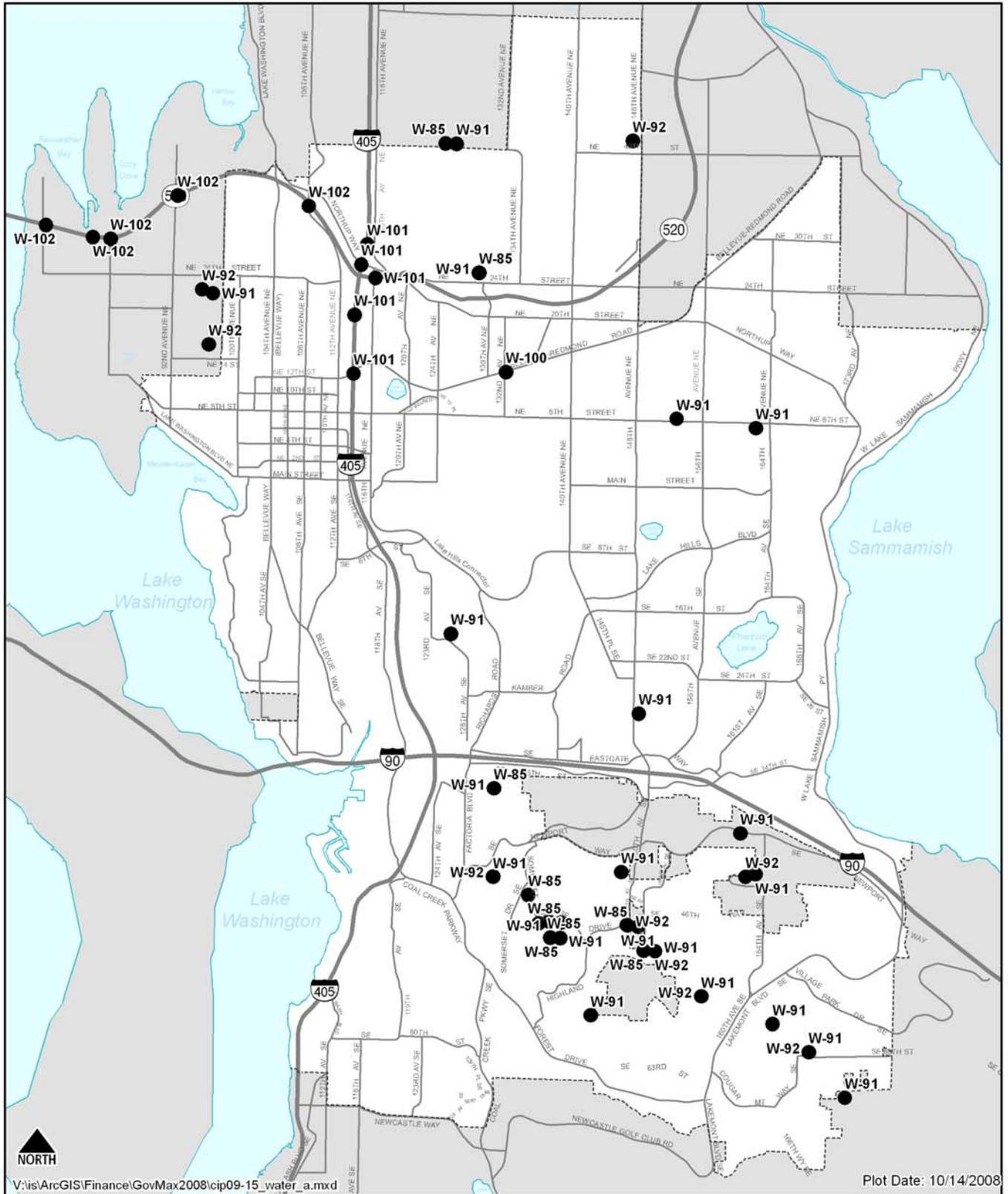
Project Status Key:

AB = Approved and Begun

O = Ongoing

ANB = Approved and Not Begun

N = New



2009-2015 Water CIP Projects

Note: Projects W-16, W-67, W-68, 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.

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2009-2015 Adopted CIP: Water

Cost and Resource Summary
\$000

	2009	2010	2011	2012	2013	2014	2015	2009-2015 Total
TOTAL BASE CIP COSTS	\$6,567	\$7,095	\$7,765	\$8,942	\$10,022	\$11,324	\$13,053	\$64,768
TOTAL SUPPLEMENTAL CIP COSTS	-	-	-	-	-	-	-	-
TOTAL COSTS	\$6,567	\$7,095	\$7,765	\$8,942	\$10,022	\$11,324	\$13,053	\$64,768
UTILITY OPERATING REVENUES:								
Water Utility Fund	\$6,567	\$7,095	\$7,765	\$8,942	\$10,022	\$11,324	\$13,053	\$64,768
TOTAL RESOURCES	\$6,567	\$7,095	\$7,765	\$8,942	\$10,022	\$11,324	\$13,053	\$64,768

FY 2009 - FY 2015 Capital Investment Program

W-16 Small Diameter Water Main Replacement

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

Status: **Ongoing**
 Location: **Throughout Bellevue**

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
57,812,000	21,832,000	3,087,000	3,634,000	4,305,000	5,025,000	5,796,000	6,624,000	7,509,000

Description and Scope

This investment would ramp up water pipeline replacement from 1.5 miles/year currently replaced in W-16, to 5 miles/year, over a ten year period. The program would focus primarily on Asbestos Cement (AC) pipe.

PROJECT NEED: System Renewal and Replacement

Rationale

Acceleration of this project is required to achieve the Asset Management Program (AMP) goal of cost effective system renewal and replacement while maintaining acceptable customer service levels. The AMP expects AC pipe to last an average of 75 years. Experience has shown small diameter AC pipes have the shortest expected life; larger diameter mains will last longer. Without acceleration, the current W-16 program for main replacement will require 400 years to replace the system, a time well beyond expected asset life.

The program will focus first on the smallest diameter pipes. 4-inch AC pipe comprises 3% of the water system, but accounts for one third of all main breaks. All 4-inch AC pipe would be replaced by 2017, reaching a maximum pipe age of 61 years. Replacement of 6-inch AC main would follow, and be completed over a 30 year period, with pip ages not exceeding 84 years. Larger diameter mains would be replaced before they reach 125 years. The potential for main breaks would be significantly reduced, minimizing service disruptions to customers, and reducing claims exposure.

As proposed, the budget would increase incrementally through 2018, and then be increased with inflation as necessary to continue the replacement of 5 miles of watermain per year.

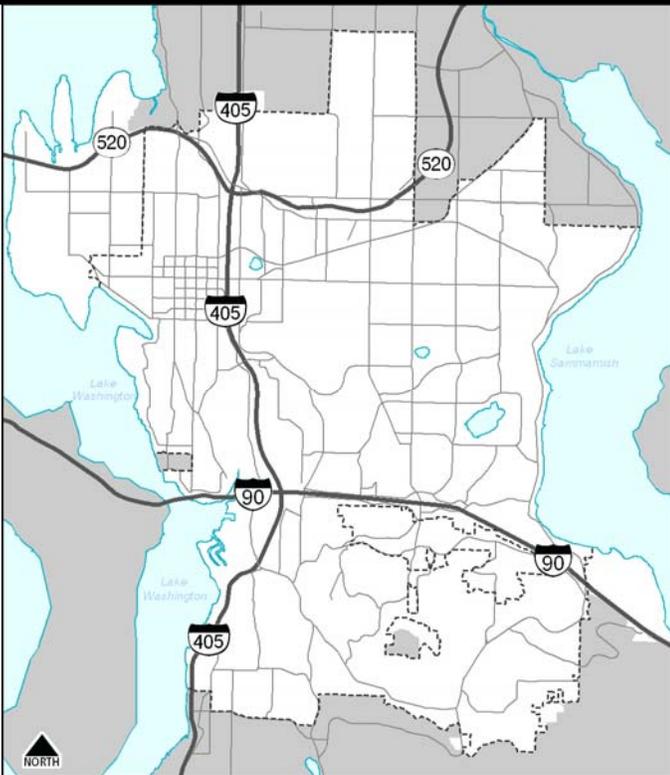
Environmental Impacts

Replacement of Water mains less than eight inches in diameter are generally exempt from environmental review, unless they are in or adjacent to sensitive areas. The status of environmental review of specific projects is undetermined.

Operating Budget Impacts

This project will have no impact on operating revenues (and/or) expenditures, since it replaces existing facilities.

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	Ongoing	57,812,000
Total Budgetary Cost Estimate:		57,812,000

Means of Financing

Funding Source	Amount
Charges for Services	15,000
Contributions from Other City Funds	179,000
Miscellaneous Revenue	794,000
Utility Rates/Fees	56,824,000
Total Programmed Funding:	57,812,000
Future Funding Requirements:	0

Capital Costs/Revenue: This project provides enhanced funding (\$16.7 million) in water main replacement to achieve asset management goals of cost effective utility system renewal & replacement that maintains acceptable customer service levels.

FY 2009 - FY 2015 Capital Investment Program

W-67 Pressure Reducing Valve (PRV) Rehabilitation

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

Status: **Ongoing**
 Location: **Various locations throughout the Water Utility's service are**

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
7,896,000	3,387,000	922,000	541,000	562,000	585,000	608,000	633,000	658,000

Description and Scope

This ongoing program consists of the rehabilitation or replacement of old, deteriorating, and unsafe water system vaults containing aging pressure reducing valves throughout the water service area. The number of pressure reducing valves that are rehabilitated varies slightly from year to year based on the annual program budget and the rehabilitation costs, but over the long term should average between 6 and 7 PRVs per year. There are approximately 166 active PRVs in the system. Replacement criteria include service requirements, safety, maintenance history, age, and availability of replacement parts.

PROJECT NEED: System Renewal & Replacement

Rationale

Pressure Reducing Valves (PRVs) supply domestic water and emergency fireflow to pressure zones within our water system. This program is intended to replace critical PRVs prior to failure, or when they reach their "useful life", meaning that replacement parts are not available or valve performance is not reliable.

Many PRVs and the vaults that house them are over 25 years old and contain galvanized pipe, valves, meters, and other equipment which are deteriorating. Reliability has become a concern, and repair parts are difficult or impossible to find. The size and difficulty of access to many of these older vaults makes increased maintenance and repair activities difficult, and raises maintenance and personnel safety concerns. This program will reduce the likelihood of pressure reducing valve failure, thereby increasing the reliability of water supply to areas served by these facilities. Access to and safety of the vaults will be improved, where necessary.

The current focus is to replace the 40 oldest PRVs, which were installed in 1975 or earlier, and which are approaching their useful design life. Once those have been done, replacement of 4 to 5 PRVs per year should be a sustainable level, to keep maximum asset life under 35 years. The proposed investment positively impacts the program's desired outcomes & performance measures, and responds to Council priorities and/or public feedback by ensuring the continued integrity of the water system infrastructure, minimizing unplanned service interruptions, and maintaining utility customer satisfaction. It supports economic development by providing sufficient potable water for domestic and emergency needs for planned growth.

Environmental Impacts

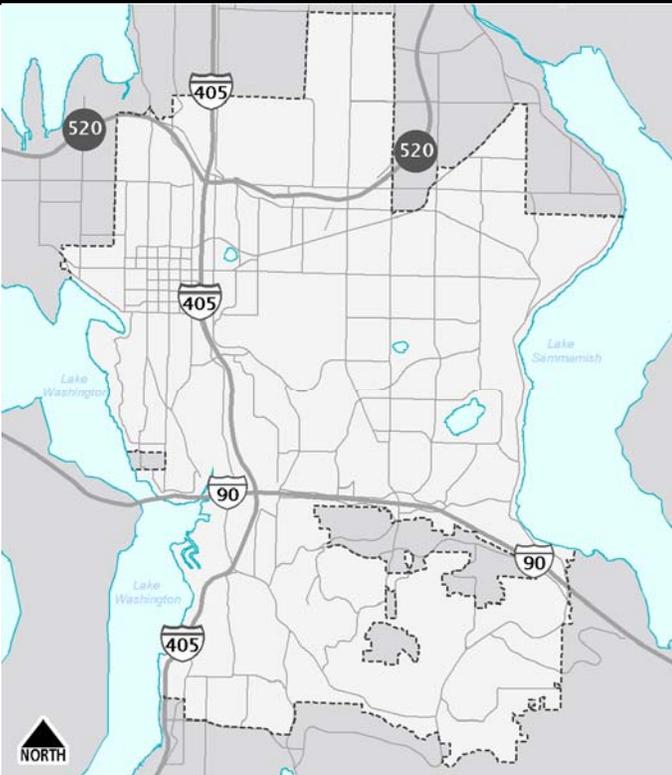
The specific environmental impacts or the State Environmental Protection Act (SEPA) requirements will be determined for each specific project. Projects are generally confined to a small area within an existing utility vault, or may involve replacement of the vault, and are generally exempt.

Operating Budget Impacts

This project will have no impact on operating revenues (and/or) expenditures, since it replaces existing facilities.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Costs	1991 - Ongoing	7,896,000
Total Budgetary Cost Estimate:		7,896,000
Means of Financing		
Funding Source	Amount	
Charges for Services	2,000	
Miscellaneous Revenue	13,000	
Utility Rates/Fees	7,881,000	
Total Programmed Funding:		7,896,000
Future Funding Requirements:		0

This project is located throughout the service area.

FY 2009 - FY 2015 Capital Investment Program

W-68 Water Service Extension

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

Status: **Ongoing**
 Location: **Various locations throughout the Water Utility's service are**

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
4,167,000	2,443,000	218,000	227,000	236,000	246,000	255,000	266,000	276,000

Description and Scope

This ongoing program consists of designing and constructing water distribution facilities at various locations throughout the water system service area. These facilities are constructed to serve areas which currently do not have City water available. The program may include installation of water system supply components including PRV's and master meters associated with water system expansion.

PROJECT NEED: System Expansion

Rationale

Projects are typically constructed in areas where the City is approached by affected property owners or in conjunction with other Utility or roadway construction. Each project requires majority support of affected property owners, except in cases where other utility priorities such as public health or safety take precedence. These projects typically serve areas where well systems are either going dry or are providing water of unacceptable quality. Project costs are generally recovered via connection fees to benefited properties. This program eliminates dependence on well systems by providing City water service. It provides a reliable source of high-quality water to areas with old well systems which may be going dry or are providing water of unacceptable quality. It reduces costs and disruption to communities when constructed in conjunction with other Utility or roadway improvement projects.

Property owner interest fluctuates annually, resulting in some years with no construction and other years with substantial new construction. As the water system approaches build-out, fewer requests for water system extension are anticipated.

Environmental Impacts

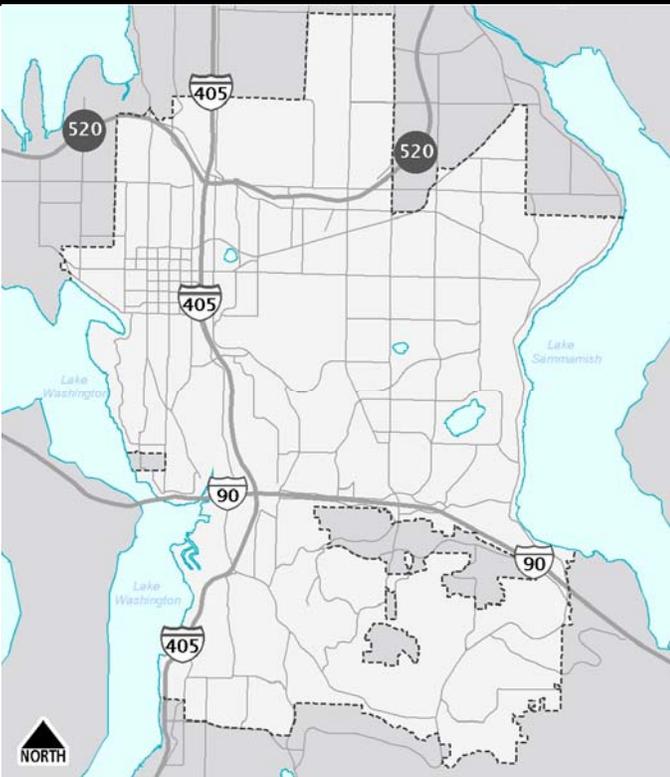
The environmental impacts or State Environmental Protection Act (SEPA) requirements will be determined for each specific project.

Operating Budget Impacts

Operating budget costs will increase due to the addition of new water pipe. Additional operating costs will be incremental depending on the length and location of new water main, and can be approximated at \$0.92/LF. The existing budget allows construction of between 1000 and 1400 LF of water pipe each year, which is only constructed if requests are received.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Costs	1990 - Ongoing	4,167,000
Total Budgetary Cost Estimate:		4,167,000
Means of Financing		
Funding Source	Amount	
Charges for Services	1,000	
Utility Rates/Fees	4,166,000	
Total Programmed Funding:		4,167,000
Future Funding Requirements:		0

This project is located throughout the service area.

FY 2009 - FY 2015 Capital Investment Program

W-69 Minor Water Capital Improvement Projects

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

Status: **Ongoing**
 Location: **Various locations throughout the Water Utility's service are**

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
5,106,000	3,406,000	215,000	224,000	233,000	242,000	252,000	262,000	272,000

Description and Scope

This is an ongoing program to fund minor capital improvements to the City's water system which correct minor deficiencies, solve maintenance problems, often in conjunction with other City projects such as street overlays or improvements, or to address neighborhood issues. They are generally small projects that wouldn't justify separate CIP projects, and oftentimes can't be anticipated.

PROJECT NEED: Resolve Deficiencies / Improve Efficiency

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.

Environmental Impacts

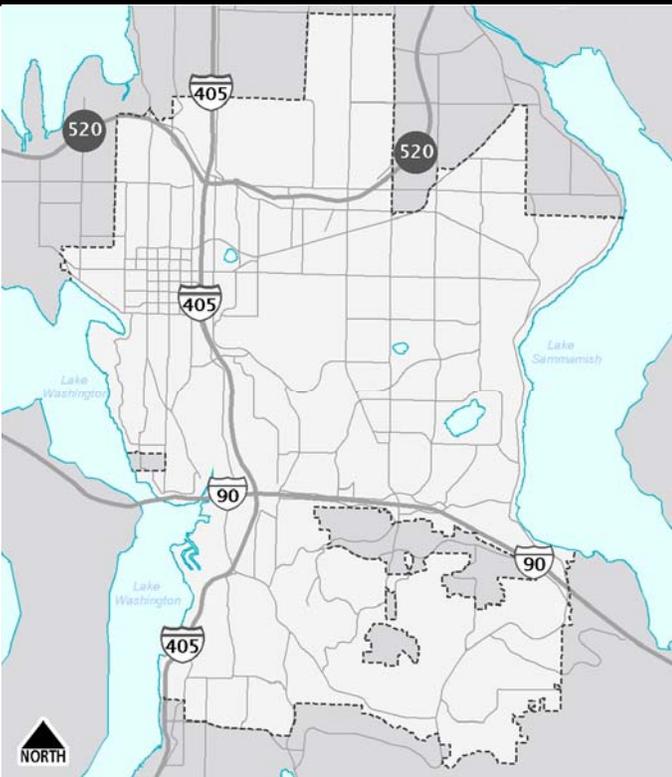
The environmental impacts and State Environmental Protection Act (SEPA) requirements will be determined for each specific project, but are generally exempt.

Operating Budget Impacts

This project will have no impact on operating revenues (and/or) expenditures.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Costs	1991 - Ongoing	5,106,000

Total Budgetary Cost Estimate: 5,106,000

Means of Financing

Funding Source	Amount
Charges for Services	1,000
Miscellaneous Revenue	153,000
Utility Rates/Fees	4,952,000

Total Programmed Funding: 5,106,000
Future Funding Requirements: 0

This project is located throughout the service area.

FY 2009 - FY 2015 Capital Investment Program

W-82 Fire Hydrant Improvements

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

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

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
1,626,000	1,189,000	55,000	58,000	61,000	62,000	64,000	67,000	70,000

Description and Scope

The first phase of this program was a multi-year project to add hydrants to locations where hydrant spacing exceeded 1,000 feet. Phase 2 of this program (currently underway) will replace over 200 outdated 2-port hydrants. The program has been extended periodically as we have assumed new service areas, and as costs to replace hydrants have increased.

PROJECT NEED: System Renewal & Replacement; Improved Level of Service

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. Phase 2 of this project is improving the available fireflow and the response time in the event of a fire. Existing 2-port hydrants require extra time and connection equipment to supply water from both ports to the fire pumper trucks. The project provides increased fire protection for areas where hydrant spacing was the limiting factor, and improves emergency response time in the event of a fire by replacing hydrants that do not comply with current standards. Maintenance and operational costs of the fire hydrants will remain about the same.

Environmental Impacts

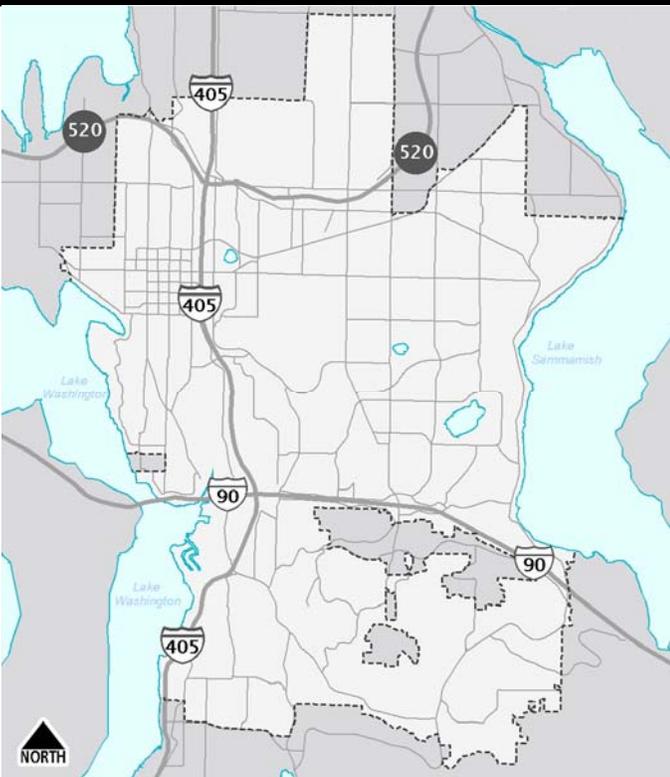
Fire hydrant replacement projects are generally exempt from State Environmental Protection Act (SEPA). Impacts are anticipated to be insignificant.

Operating Budget Impacts

This project will have no impact on operating revenues (and/or) expenditures, since Phase 2 replaces existing facilities.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Costs	1993 - Ongoing	1,626,000
Total Budgetary Cost Estimate:		1,626,000
Means of Financing		
Funding Source	Amount	
Charges for Services	2,000	
Miscellaneous Revenue	105,000	
Utility Rates/Fees	1,519,000	
Total Programmed Funding:		1,626,000
Future Funding Requirements:		0

This project is located throughout the service area.

FY 2009 - FY 2015 Capital Investment Program

W-85 Structural/Seismic Reservoir Rehabilitation

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

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

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
12,746,000	8,357,000	556,000	578,000	601,000	625,000	650,000	676,000	703,000

Description and Scope

This program modifies or replaces existing reservoirs to mitigate water system earthquake damage and maintain their function during seismic events. Pre-design studies are conducted prior to design and construction of projects to address structural/seismic issues at individual sites. Demolition of the old Water District 68 water treatment plant was included in this program in conjunction with the demolition and reconstruction of the adjacent Meydenbauer Reservoir, completed in 2004. To date, improvements have been completed at seven of the eighteen reservoirs requiring rehabilitation or replacement under this project. Improvements at several more sites are currently in design.

PROJECT NEED: System Renewal & Replacement; Improved Level of Service

Rationale

An assessment of seismic vulnerability identified reservoirs at risk for failure in a seismic event. This program will modify or replace (if more cost effective) existing reservoirs as necessary to mitigate earthquake damage and maintain system function after a major seismic event. The improvements will reduce life safety risks and optimize reduction of economic risk during seismic events. Failure consequences that will be reduced include loss of tank system operation, loss of use of communications systems, and resultant property damage.

The 11 remaining projects were evaluated by Montgomery Watson in 1999, and planning-level cost estimates for remaining work were developed at that time. Some of the remaining projects are quite small (less than \$50,000); others involve replacement of entire small reservoirs, and will be coordinated with rehabilitation of the pump stations at those sites. Annual funding is levelized, but expenditures fluctuate as projects are constructed when sufficient resources are available. Annual funding will be required until all projects are complete.

Environmental Impacts

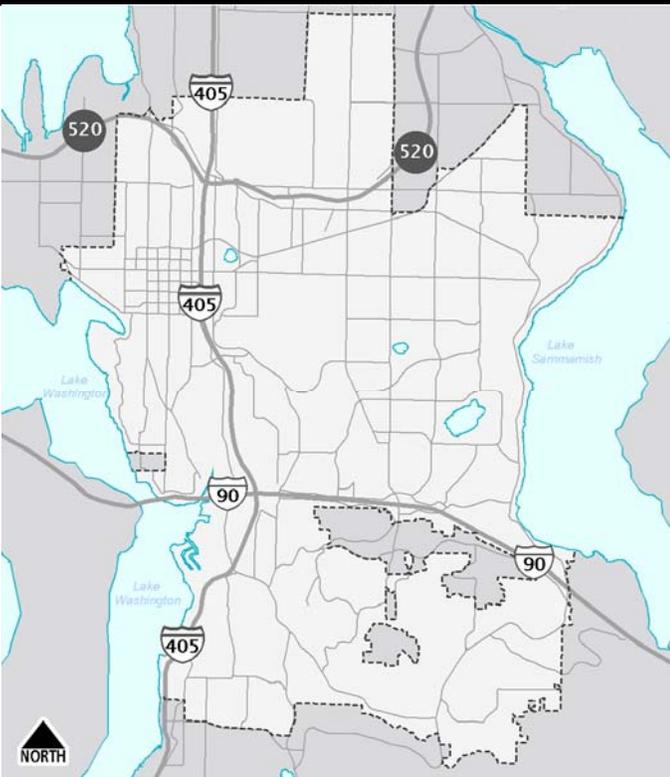
The environmental impacts will be determined during the design of each specific project.

Operating Budget Impacts

This project will have no impact on operating revenues (and/or) expenditures.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Costs	1993 - Ongoing	12,746,000
Total Budgetary Cost Estimate:		12,746,000
Means of Financing		
Funding Source	Amount	
Charges for Services	4,000	
Miscellaneous Revenue	1,427,000	
Utility Rates/Fees	11,315,000	
Total Programmed Funding:		12,746,000
Future Funding Requirements:		0

FY 2009 - FY 2015 Capital Investment Program

W-91 Water Pump Station Rehabilitation

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

Status: **Ongoing**
 Location: **Various locations throughout the water service area**

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
10,026,000	938,000	1,032,000	1,098,000	1,142,000	1,187,000	1,235,000	1,664,000	1,730,000

Description and Scope

This project will replace mechanical and electrical pump station components which have reached their useful life, and bring other life/safety and functions of 22 aging water pump stations up to current codes.

PROJECT NEED: System Renewal & Replacement

Rationale

Bellevue's water system includes 22 pump stations, which supply water for domestic use and to fight fires. 35% of all water consumed or used in Bellevue passes through one or more of these stations, amounting to over two billion gallons per year. This project will maintain the reliability of these critical facilities.

These stations were last rehabilitated beginning in the early 1980's, making some over 25 years old. This program rehabilitates the stations when they reached 25 to 30 years old, which is the projected useful life of the mechanical and electrical components.

A pre-design study completed in 2007 suggests the budget will not accommodate the planned rehabilitation of two pump stations/year. Higher than expected estimates suggest 1-1.5 stations/year is realistic. Therefore the budget escalates in the last two years, and less expensive design alternatives will be evaluated.

Environmental Impacts

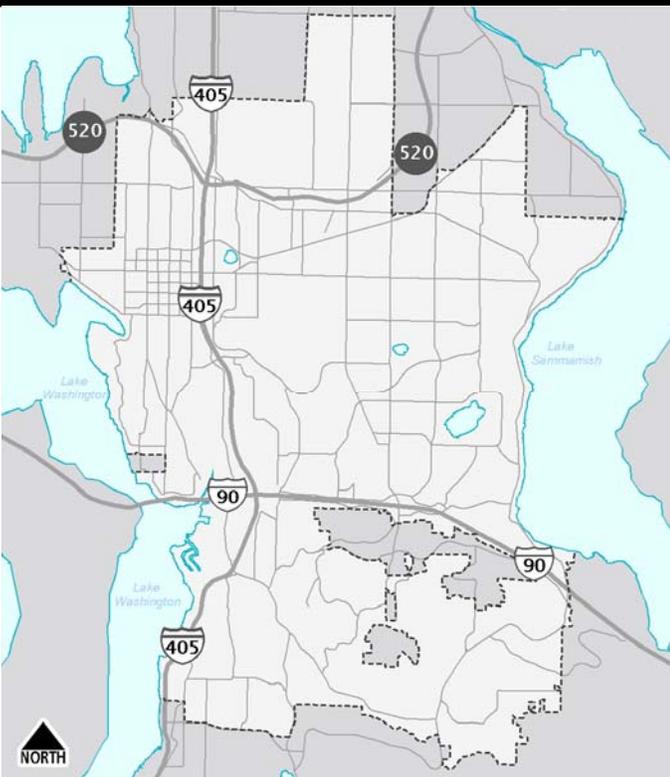
Most work will be within the confines of the existing pump station buildings, therefore no impacts are anticipated.

Operating Budget Impacts

This project will have no impact on operating revenues (and/or) expenditures, since it replaces existing facilities.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Costs	2005 - Ongoing	10,026,000
Total Budgetary Cost Estimate:		<u>10,026,000</u>
Means of Financing		
Funding Source	Amount	
Utility Rates/Fees	10,026,000	
Total Programmed Funding:		<u>10,026,000</u>
Future Funding Requirements:		0

FY 2009 - FY 2015 Capital Investment Program

W-92 Reservoir Water Quality Upgrades

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

Status: **Approved and Begun**
 Location: **Various reservoirs/tanks throughout the water service area**

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
708,000	481,000	104,000	123,000	-	-	-	-	-

Description and Scope

This project will improve or maintain drinking water quality by installation of online chlorine analyzers at water storage reservoirs, separation of common water inlets/outlets at reservoirs that experience poor mixing, and piping upgrades/arrangements, and piping upgrades in the distribution system to decrease water age and maintain minimum chlorine residuals.

PROJECT NEED: Regulatory Requirements

Rationale

The program is needed to improve or maintain drinking water quality to comply with disinfection byproduct regulations. The program will help to insure continued compliance with State and Federal mandates for drinking water quality, and will also improve aesthetics related to taste and odor. The program will ensure a safe supply of drinking water by maintaining 100% compliance with State and Federal drinking water standards with an emphasis on Disinfection By-Products Regulation and Total Coliform Rule (TCR). The program responds to Presidential Directive HSPD-10, which recognizes on-line water quality monitoring as an important security tool for the protection of drinking water supplies.

Environmental Impacts

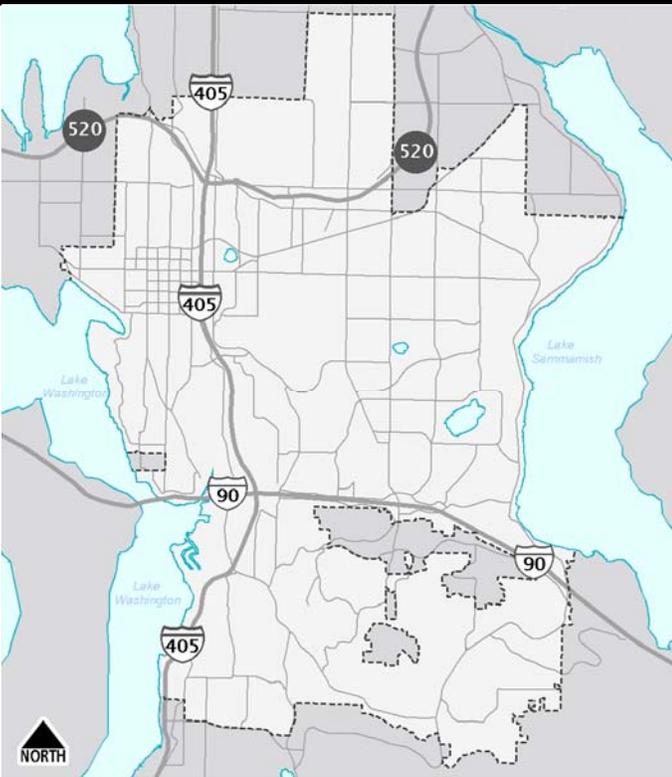
Since all work will be performed within existing facilities, no impacts are anticipated.

Operating Budget Impacts

This project will have no impact on operating revenues (and/or) expenditures.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Costs	2001 - 2009	708,000
Total Budgetary Cost Estimate:		708,000
Means of Financing		
Funding Source	Amount	
Utility Rates/Fees	708,000	
Total Programmed Funding:		708,000
Future Funding Requirements:		0

This project is located throughout the service area.

FY 2009 - FY 2015 Capital Investment Program

W-98 Replacement of Large Commercial Water Meters

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

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

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
3,318,000	958,000	108,000	330,000	333,000	374,000	389,000	405,000	421,000

Description and Scope

Replace large (high volume) commercial water meters. Large commercial meters are defined as 3" and larger.

PROJECT NEED: System Renewal & Replacement; Revenue Enhancement

Rationale

This project was recommended in the 2003 Water Loss Study. Field tests indicated that a significant number of the large commercial meters significantly under-register the flow passing through them. There are approximately 221 of these meters in the system (out of over 35,000 total meters), which account for nearly 30% of the total volume of water sold. The study estimated that large commercial meters may under-register as much as 102 million gallons annually. The revenue lost by the meter inaccuracies is experienced in both the water and sewer utilities, since sewer rates are based on winter water usage. This investment will enhance revenues and ensure equitable water use charges by accurately measuring water consumed. This results in more accurate rate allocation among user classes (residential and commercial customers) and reduced unaccounted (and non-revenue producing) water. The project meets the Utility's CIP program objectives of improved reliability & integrity of the Utility's infrastructure; promotes fiscal stewardship by enhancing revenue and appropriately allocating cost among customers.

Environmental Impacts

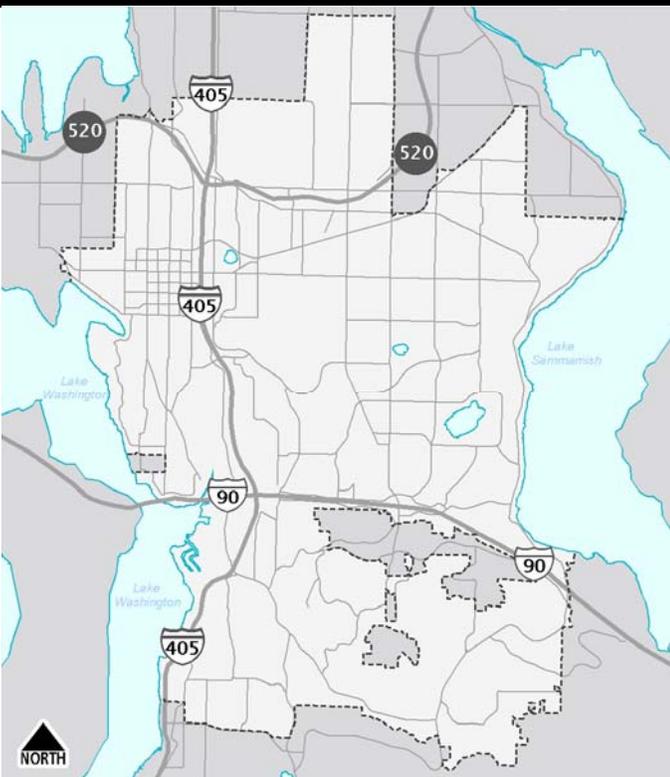
Replacement of large meters often involves replacement of the vault to meet the design requirements of new meters and current safety and operational standards. However, in most cases there is no environmental impact associated with replacement of meter and vault.

Operating Budget Impacts

This project will have some positive impact on operating revenues, since new water meters are more accurate than the ones being replaced, which tend to under-register water. Because it is a new program, we have no reliable basis to estimate the revenue enhancement yet. This project will have no impact on operating expenditures since it replaces existing facilities.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Costs	2005 - Ongoing	3,318,000
Total Budgetary Cost Estimate:		3,318,000
Means of Financing		
Funding Source	Amount	
Utility Rates/Fees	3,318,000	
Total Programmed Funding:		3,318,000
Future Funding Requirements:		0

This project is located throughout the service area.

FY 2009 - FY 2015 Capital Investment Program

W-99 Water Service Line and Saddle Replacement Program

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

Status: **Ongoing**
 Location: **Throughout the water service area**

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
1,856,000	438,000	166,000	174,000	180,000	187,000	195,000	253,000	263,000

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).

PROJECT NEED: System Renewal & Replacement

Rationale

The City is responsible for maintaining approximately 33,000 water services and saddles. 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

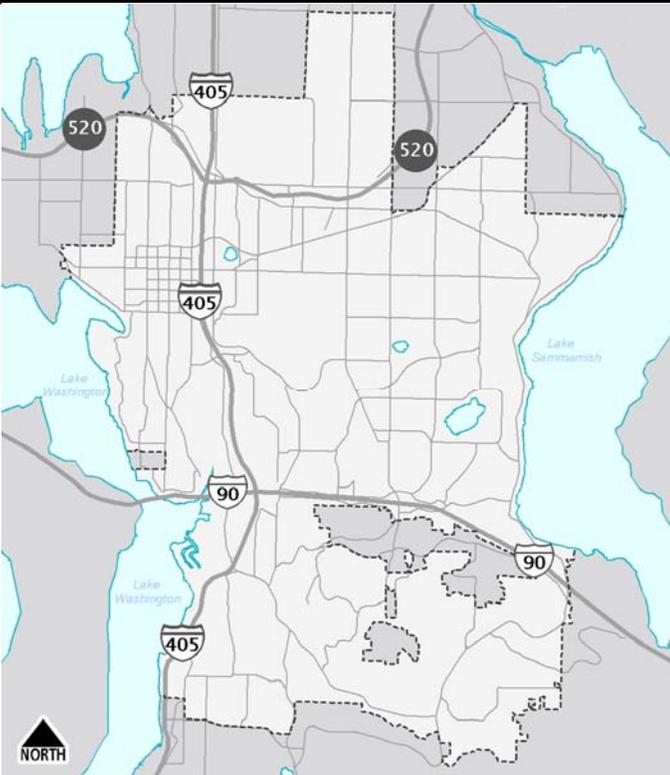
Replacement of existing water service lines and saddles will in most cases result in no environmental impact.

Operating Budget Impacts

This project will have no impact on operating revenues (and/or) expenditures, since it replaces existing facilities.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Costs	2005 - Ongoing	1,856,000
Total Budgetary Cost Estimate:		1,856,000
Means of Financing		
Funding Source	Amount	
Utility Rates/Fees	1,856,000	
Total Programmed Funding:		1,856,000
Future Funding Requirements:		0

This project is located throughout the service area.

FY 2009 - FY 2015 Capital Investment Program

W-101 Relocate Water WSDOT I-405/SR 520 Braids

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

Status: **New**
 Location: **Within and adjacent to the I-405 and SR 520 Rights of Way**

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
563,000	-	104,000	108,000	112,000	117,000	122,000	-	-

Description and Scope

Relocate up to four water pipes located within the state's right-of-way, to accommodate the state highway project. The state's project includes complete replacement of the NE 12th Street overpass bridge, where Bellevue has a 16-inch diameter transmission main that provides the primary water supply to Bellevue west of I-405.

PROJECT NEED: Regulatory Requirements (Mandate)

Rationale

Rationale: Bellevue is legally obligated to relocate or modify its utilities to accommodate the State's project.

Environmental Impacts

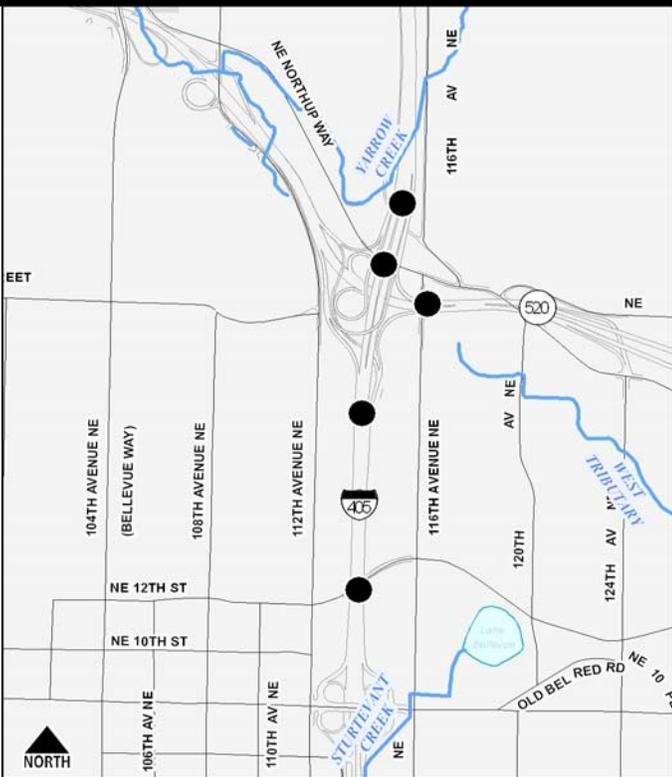
Relocation of utilities is an incidental part of the State's highway project. Any environmental impacts will be identified and mitigation proposed as part of the environmental review for the entire WSDOT project.

Operating Budget Impacts

At this time, this project has no known impact on operating revenues and/or expenditures.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Costs	2009 - 2013	563,000
Total Budgetary Cost Estimate:		563,000
Means of Financing		
	Funding Source	Amount
Utility Rates/Fees		563,000
Total Programmed Funding:		563,000
Future Funding Requirements:		0

Capital Costs/Revenue: New capital funding of \$563,000. This new capital project will fund Bellevue's legal obligation to relocate utilities within the state right-of-way that are affected by the state highway project. Separate project funding for water and sewer utilities.

FY 2009 - FY 2015 Capital Investment Program

W-102 Relocate Water for WSDOT 520 Expansion

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

Status: **New**
 Location: **Within & adjacent to SR 520 Right of Way from Lake Washington**

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
474,000	-	-	-	-	-	152,000	158,000	164,000

Description and Scope

Relocate up to five water pipes located within the state's right-of-way, to accommodate the state highway project. Bellevue has three pipes hung from overpasses, and two that pass under the highway, within the vicinity of the WSDOT project. The crossings provide domestic water supply to customers north of SR520

PROJECT NEED: Regulatory Requirements (Mandate)

Rationale

Bellevue is legally obligated to relocate or modify its utilities to accommodate the State's project.

Environmental Impacts

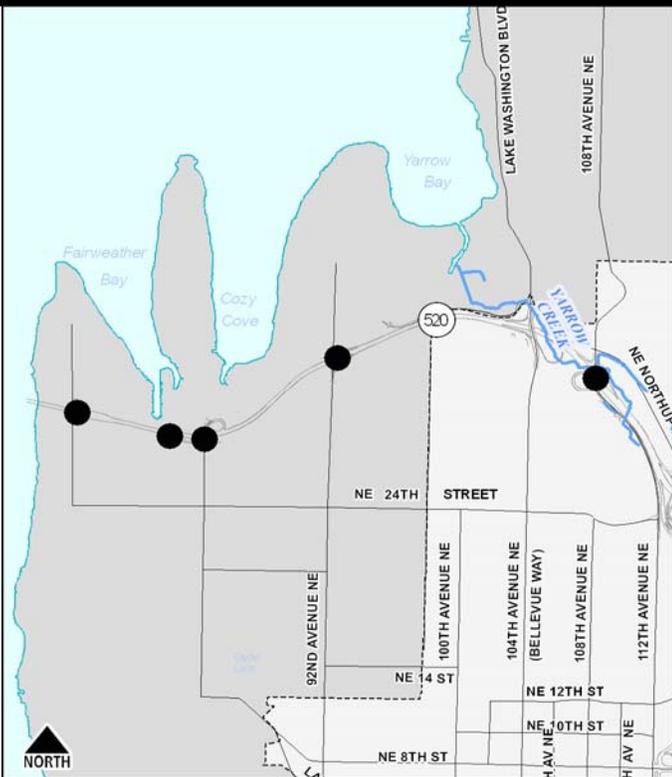
Relocation of utilities is an incidental part of the State's highway project. Any environmental impacts will be identified and mitigation proposed as part of the environmental review for the entire WSDOT project.

Operating Budget Impacts

At this time, this project has no known impact on operating revenues and/or expenditures.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Costs	2009 - 2020	1,401,000
Total Budgetary Cost Estimate:		1,401,000

Means of Financing

Funding Source	Amount
Utility Rates/Fees	474,000
Total Programmed Funding:	474,000
Future Funding Requirements:	927,000

Capital Costs/Revenue: This project provides new funding (\$1,401,000) to fund Bellevue's legal obligation to relocate utilities within state right-of-way that are affected by the state highway project. Separate project funding for water and sewer utilities.

FY 2009 - FY 2015 Capital Investment Program

W-103 Increase Reservoir Storage for Downtown

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

Status: **New**
 Location: **Not yet determined**

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
1,241,000	-	-	-	-	292,000	304,000	316,000	329,000

Description and Scope

This project includes a siting study, design and construction of 1-million gallons of new drinking water storage. The cost estimate does not include site acquisition. If practical, this project would be coordinated with the replacement or rehabilitation of existing reservoir(s), on property already owned by the City.

PROJECT NEED: System Expansion

Rationale

Bellevue's Water Comprehensive Plan identifies the need for additional drinking water storage to supply water for supply emergencies, fire protection, and equalization (daily usage) to serve anticipated population growth in Downtown Bellevue. Based on projected growth, one million gallons of additional storage will be required by 2017. A total of 2.4 million gallons will be required by 2025 to meet state requirements (Phase II, 1.4 MG storage, is not included in this proposal)

Sufficient storage is necessary to meet customer demands, especially during any type of unplanned supply outage. If such storage is not provided, mandatory water use restrictions would be required.

Environmental Impacts

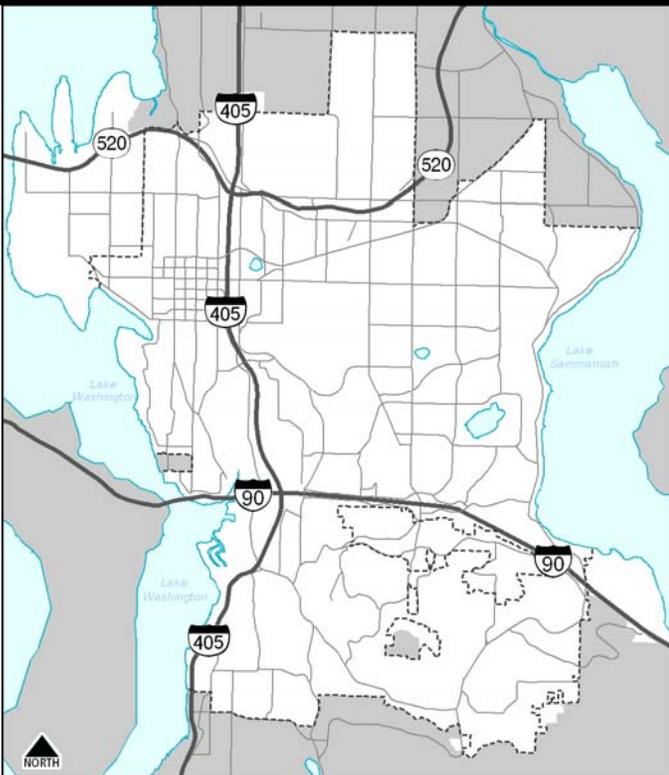
Environmental impacts will be evaluated as part of the pre design study.

Operating Budget Impacts

This project may increase operating expenditures, since it is a facility expansion. Specific costs have not yet been estimated.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Costs	2012 - 2017	6,825,000
Total Budgetary Cost Estimate:		6,825,000
Means of Financing		
Funding Source	Amount	
Utility Rates/Fees	1,241,000	
Total Programmed Funding:		1,241,000
Future Funding Requirements:		5,584,000

Capital Costs/Revenue: This project provides new funding (\$6,825,000) to add additional storage to the west operating area for anticipated development.

FY 2009 - FY 2015 Capital Investment Program

W-104 Increased Water Supply for West Bellevue

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

Status: **New**
 Location: **Not yet determined**

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
658,000	-	-	-	-	-	-	-	658,000

Description and Scope

This project includes the construction of a new supply inlet and associated piping from the regional water supply line to the West Operating Area of Bellevue's water system, which includes downtown. This project would be coordinated with Cascade Water Alliance's plans for facilities to provide water supply to Bellevue.

PROJECT NEED: System Expansion

Rationale

Bellevue's Water Comprehensive Plan forecasts the need for additional water supply to serve Downtown. Based on projected growth, additional supply will be needed by 2017. This project will also provide operational redundancy, reducing system vulnerability, by adding a third major water supply to areas of Bellevue that are west of I-405. If not constructed in a timely manner, the water system would likely not be able to meet customer demand during peak summertime usage, meaning water use restrictions. Significant delays could mean a moratorium on new development.

Environmental Impacts

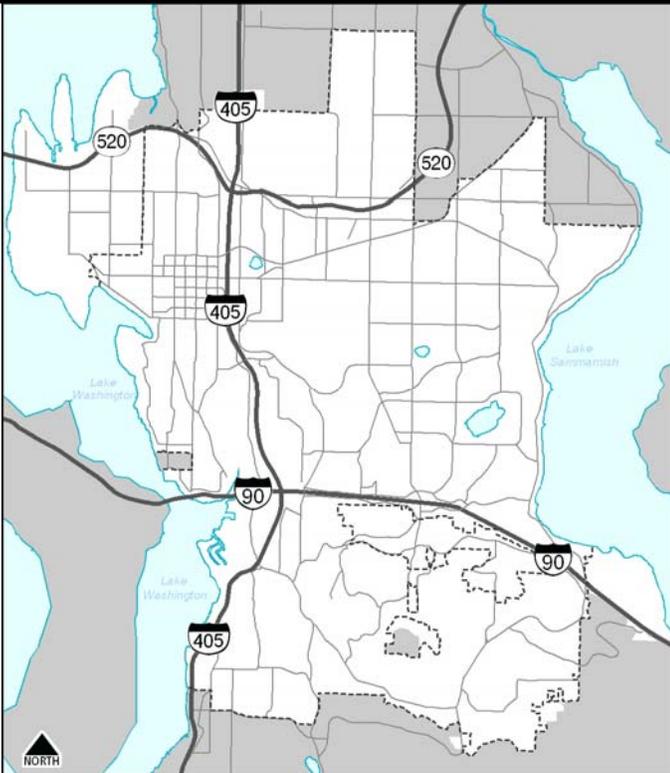
Environmental impacts have not yet been evaluated, but are expected to be minimal.

Operating Budget Impacts

This project may increase operating expenditures, since it is a new facility. Specific costs have not yet been estimated.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Costs	2015 - 2017	5,544,000
Total Budgetary Cost Estimate:		5,544,000

Means of Financing

Funding Source	Amount
Utility Rates/Fees	658,000
Total Programmed Funding:	658,000
Future Funding Requirements:	4,886,000

Capital Costs/Revenue: This project provides new funding (\$5,544,000) to construct a new inlet supply and piping from the regional supply to Bellevue's supply to serve the needs of downtown.

2009-2015 Adopted CIP: Water

Projects Completed or Anticipated to be Completed by End of 2008

CIP Plan Number	Project Name	Total Estimated Cost (\$000s)
W-87	Rosemont Asbestos Water Main Replacement	\$734
W-100	Bel-Red Inlet Capacity Improvements	549

