

**City of Bellevue
Utilities Department
2019-2025 Proposed CIP**

- System Need**
- Replacement
 - Growth
 - Regulatory
 - Cust. Enhancement
 - Environmental Preservation

- Type of Change**
- Scope
 - Schedule
 - Cost
 - New Project

Project Name: W-16 - Small Diameter Water Main Replacement

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% cost increase reflecting actual bid experience for pipe replacement.

PROPOSED CHANGE:

Costs are adjusted based on anticipated inflation rates. Proposal is to increase funding in 2019 and 2020 based on expected pipe material shortages from extreme weather events in Texas and Florida. Added design and construction funds for projects in outer years.

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.

Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$10,325,000	\$9,542,000	\$9,722,000	\$9,916,000	\$10,114,000	\$10,317,000	\$10,358,000			\$70,294,000
2019-2025 Proposed CIP			9,720,000	9,914,000	10,113,000	10,317,000	10,736,000	10,950,000	11,169,000	72,919,000
Difference			-\$2,000	-\$2,000	-\$1,000	\$0	\$378,000			\$2,625,000

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Project Name: W-67 - Pressure Reducing Valve (PRV) Rehabilitation

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.

PROPOSED CHANGE:

Recosted based on new inflationary values. Added projects in outer years.

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

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Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$545,000	\$400,000	\$281,000	\$541,000	\$424,000	\$433,000	\$441,000			\$3,065,000
2019-2025 Proposed CIP			0	0	424,000	433,000	441,000	451,000	459,000	2,208,000
Difference			-\$281,000	-\$541,000	\$0	\$0	\$0			-\$857,000

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Project Name: W-69 - Minor Capital Improvement Projects

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.

PROPOSED CHANGE:

Nature of work remains unchanged, however, increased funding is necessary to increase pressure in four zones, two previously proposed projects were determined to no longer be needed or were resolved by other efforts, and initiated a new sub-project for leaking valve replacements starting in 2021.

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

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Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$216,000	\$253,000	\$223,000	\$206,000	\$119,000	\$245,000	\$250,000			\$1,512,000
2019-2025 Proposed CIP			766,000	238,000	305,000	357,000	320,000	397,000	321,000	2,704,000
Difference			\$543,000	\$32,000	\$186,000	\$112,000	\$70,000			\$1,192,000

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Project Name: W-82 Fire Hydrant Standardization

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.

PROPOSED CHANGE:

Accelerated work from 2020 to 2019 in order to close out this program after 2020. Added overlay work in 2020 that was previously missed.

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

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Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$2,532	\$315,000	\$0	\$254,000	\$0	\$0	\$0			\$571,532
2019-2025 Proposed CIP			143,000	120,000	0	0	0	0	0	263,000
Difference			\$143,000	-\$134,000	\$0	\$0	\$0			-\$308,532

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|---|---|
| <p>System Need</p> <p><input checked="" type="checkbox"/> Replacement</p> <p><input type="checkbox"/> Growth</p> <p><input type="checkbox"/> Regulatory</p> <p><input type="checkbox"/> Cust. Enhancement</p> <p><input type="checkbox"/> Environmental Preservation</p> | <p>Type of Change</p> <p><input checked="" type="checkbox"/> Scope</p> <p><input checked="" type="checkbox"/> Schedule</p> <p><input checked="" type="checkbox"/> Cost</p> <p><input type="checkbox"/> New Project</p> |
|---|---|

Project Name: W-85 Reservoir Rehabilitation or Replacement

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. Pikes Peak Reservoir and Horizon View #2 reservoirs will be completed during this CIP window.

PROPOSED CHANGE:

Evaluation of the existing reservoirs along with a recommendation to delay Pikes Peak and accelerate the Cherry Crest PS to address a larger system need results in cost shifts within the spending plan window. The Pikes Peak reservoir work has been recosted based on an alternatives analysis that assessed the Cherry Crest Pump Station (addressed in W-91) timing and scope (size). Added reservoir coating projects typically managed by a senior engineer but funded through operations and maintenance to the CIP spending plan.

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

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Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$61,772	\$423,000	\$1,888,000	\$715,000	\$777,000	\$1,382,000	\$2,011,000			\$7,257,772
2019-2025 Proposed CIP			1,284,000	4,585,000	3,470,000	1,570,000	2,127,000	1,833,000	1,698,000	16,567,000
Difference			-\$604,000	\$3,870,000	\$2,693,000	\$188,000	\$116,000			\$9,309,228

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|---|---|

Project Name: W-91 Water Pump Station Rehabilitation or Replacement

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.

PROPOSED CHANGE:

Accelerated Cherry Crest Pump Station replacement as a part of a larger strategy encompassing the Pikes Peak Pump Station and Reservoir replacement. Added offsite water mains and individual PRVs required as a part of the overall strategy. Recosted Pikes Peak Pump Station to address demolition costs only. Added new project starting in 2024.

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

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Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$1,345,235	\$838,000	\$2,997,000	\$2,131,000	\$2,880,000	\$2,782,000	\$2,312,000			\$15,285,235
2019-2025 Proposed CIP			5,224,000	3,348,000	2,908,000	2,554,000	1,045,000	832,000	2,544,000	18,455,000
Difference			\$2,227,000	\$1,217,000	\$28,000	-\$228,000	-\$1,267,000			\$3,169,765

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Project Name: W-98 Large Commercial Meter Vault Replacement

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.

PROPOSED CHANGE:

Reduced replacement program to one meter per year starting in 2020 to address reduced number remaining and anticipated AMI overlap. Added projects in outer years.

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

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Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$119,855	\$550,000	\$0	\$573,000	\$584,000	\$596,000	\$608,000			\$3,030,855
2019-2025 Proposed CIP			0	120,000	122,000	125,000	195,000	199,000	202,000	963,000
Difference			\$0	-\$453,000	-\$462,000	-\$471,000	-\$413,000			-\$2,067,855

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- | | |
|---|--|
| <input checked="" type="checkbox"/> Replacement | <input type="checkbox"/> Scope |
| <input type="checkbox"/> Growth | <input type="checkbox"/> Schedule |
| <input type="checkbox"/> Regulatory | <input checked="" type="checkbox"/> Cost |
| <input type="checkbox"/> Cust. Enhancement | <input type="checkbox"/> New Project |
| <input type="checkbox"/> Environmental Preservation | |

Project Name: W-99 Water Service Line and Saddle Replacement Program

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.

PROPOSED CHANGE:

Recosted based on new inflation estimates. Added new projects in outer years.

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

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Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$72,568	\$253,000	\$258,000	\$263,000	\$269,000	\$274,000	\$280,000			\$1,669,568
2019-2025 Proposed CIP			0	263,000	268,000	274,000	281,000	286,000	292,000	1,664,000
Difference			-\$258,000	\$0	-\$1,000	\$0	\$1,000			-\$5,568

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 - New Project

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

Description and Scope

This project is for design and construction of facilities to increase the drinking water storage available to DNTN and Bel-Red areas, which were re-zoned in recent years. Recent work in 2017 made "dead storage" available in Clyde Hill Standpipe. System improvements will be made in 2019-2025 will allow transfer of surplus water stored in East Bellevue available to West Bellevue, assuring emergency storage is available for near-term growth. These improvements include installation of new transmission mains in NE 8th Street, and upgrades to system pressure reducing valve stations. The 2016 Water System Plan also projected the need for additional storage in roughly 2034.

PROPOSED CHANGE:

Final alignment for NE 9th Street transmission main and pipe sizing with new costs.

Rationale

The need for this work was first identified in the 1998 Water Comprehensive Plan, to provide sufficient drinking water storage to accomodate growth in downtown, Bel-Red, and Wilburton areas. The 2016 Water System Plan confirmed this need, and identified discrete projects that address the near-term deficiency.

Environmental Impacts

Improvements proposed during 2019-2025 are anticipated to be buried, and have negligible environmental impacts. Construction impacts would be temporary and consistent with other buried infrastructure projects. The largest community impact is anticipated to be traffic impacts during construction in NE 8th St.

Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$342,539	\$641,000	\$654,000	\$0	\$0	\$0	\$0			\$1,637,539
2019-2025 Proposed CIP			1,576,000	0	0	0	0	0	0	1,576,000
Difference			\$922,000	\$0	\$0	\$0	\$0			-\$61,539

**City of Bellevue
Utilities Department
2019-2025 Proposed CIP**

Project Name: W-104 New Water Inlet Station

- System Need**
- Replacement
 - Growth
 - Regulatory
 - Cust. Enhancement
 - Environmental Preservation

- Type of Change**
- Scope
 - Schedule
 - Cost
 - New Project

Description and Scope

This project will construct a new inlet station from the regional water supply system, with related piping, vaults, controls and site work.

PROPOSED CHANGE:
None

Rationale

This project was first identified in the 1998 Water Comprehensive Plan, to provide sufficient drinking water for growth in downtown, Bel-Red, and Wilburton areas, while also adding supply redundancy. The 2016 Water System Plan estimated the new facility should be complete in 2020.

Environmental Impacts

The completed facility is anticipated to be buried, and have negligible environmental impacts except for maintenance-related traffic. Construction impacts would be temporary and consistent with other buried infrastructure projects. The largest community impact is anticipated to be traffic impacts during construction in 140th Ave NE and either NE 8th St or NE 20th St.

Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$637,000	\$2,273,000	\$2,319,000	\$0	\$0	\$0	\$0			\$5,229,000
2019-2025 Proposed CIP			2,319,000	0	0	0	0	0	0	2,319,000
Difference			\$0	\$0	\$0	\$0	\$0			-\$2,910,000

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- Type of Change**
- Scope
 - Schedule
 - Cost
 - New Project

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

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 as each local "zone" is constructed.

PROPOSED CHANGE:
None.

Rationale

Construction of East Link Light Rail and the Spring District created new ROW that will require water service per City policy and duty to serve. This work is separate from relocation of existing utilities (separately construction by Sound Transit via cost-sharing arrangement) and in addition to local developer extension through the Spring District.

Environmental Impacts

The environmental impacts and State Environmental Protection Agency 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.

Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$387,000	\$0	\$364,000	\$333,000	\$0	\$0	\$0			\$1,084,000
2019-2025 Proposed CIP			877,000	226,000	231,000	235,000	0	0	0	1,569,000
Difference			\$513,000	-\$107,000	\$231,000	\$235,000	\$0			\$485,000

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Project Name: W-105-B Water Facilities: NE Spring BLVD Multi Modal Corridor (Bank)

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.

PROPOSED CHANGE:
 Added banked funds for outer years.

Rationale

N/A

Environmental Impacts

N/A

Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$231,000	\$236,000	\$0	\$0	\$250,000	\$255,000	\$260,000			\$1,232,000
2019-2025 Proposed CIP			0	0	250,000	255,000	260,000	265,000	271,000	1,301,000
Difference			\$0	\$0	\$0	\$0	\$0			\$69,000

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|-------------------------------------|----------------------------|--------------------------|-------------|
| System Need | | Type of Change | |
| <input type="checkbox"/> | Replacement | <input type="checkbox"/> | Scope |
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| <input type="checkbox"/> | Regulatory | <input type="checkbox"/> | Cost |
| <input checked="" type="checkbox"/> | Cust. Enhancement | <input type="checkbox"/> | New Project |
| <input type="checkbox"/> | Environmental Preservation | | |

Project Name: W-108 Advanced Metering Infrastructure (AMI) Implementation

Description and Scope

This proposal is for a new 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% by water and 30% 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.

PROPOSED CHANGE:
None

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.

Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$210,000	\$5,644,800	\$10,307,500	\$0	\$0	\$0	\$0			\$16,162,300
2019-2025 Proposed CIP			8,207,000	2,100,000	0	0	0	0	0	10,307,000
Difference			-\$2,100,500	\$2,100,000	\$0	\$0	\$0			-\$5,855,300

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|---|--------------------------------------|
| <input type="checkbox"/> Replacement | <input type="checkbox"/> Scope |
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| <input type="checkbox"/> Regulatory | <input type="checkbox"/> Cost |
| <input type="checkbox"/> Cust. Enhancement | <input type="checkbox"/> New Project |
| <input type="checkbox"/> Environmental Preservation | |

Project Name: W-109 Richards Road Inlet Supply Station

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.

PROPOSED CHANGE:

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.

Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0			\$500,000
2019-2025 Proposed CIP			0	0	0	0	0	0	0	0
Difference			\$0	\$0	\$0	\$0	\$0			-\$500,000

**City of Bellevue
Utilities Department
2019-2025 Proposed CIP**

- System Need**
- Replacement
 - Growth
 - Regulatory
 - Cust. Enhancement
 - Environmental Preservation

- Type of Change**
- Scope
 - Schedule
 - Cost
 - New Project

Project Name: W-110 NE 40th and Enatai Inlet Water Supply Station Improvements

Description and Scope

Replace Enatai Inlet Station; abandon existing NE 40th Inlet meter vault and replace piping; add new meter vault at NE 40th Reservoir site; replace the meter at 670 Pump Station. The purpose of these projects is to improve safety, reduce risk, and renew aging infrastructure.

PROPOSED CHANGE:

Alternatives evaluation and selected options for both sites include full design and construction costs. Full scope now established along with costs and schedule. Overall scope remains the same.

Rationale

The existing Enatai Inlet Station does not allow full access to the PRV or meet current safety standards, has poor HVAC controls, and has deteriorating electrical components. It is operated above its design flow capacity during summer. The existing NE 40th Inlet meter vault does not meet safety standards and requires lane closure and traffic control for access, due to its location in the lane of travel on a busy commuting road with no shoulder. NE 40th Inlet meter vault piping also has visible joint deflection (perceived increased risk of a large main break). NE 40th reservoir and pump station rely on an aging 2,000-ft direct bury cable from the meter as critical for operation.

Environmental Impacts

Environmental impacts and State Environmental Protection Agency Act (SEPA) requirements will be determined during the design process with the Parks Department, but are expected to consist primarily of mitigated and temporary impacts to the use of Enatai Beach Park.

Financial Detail (Inflated to year of construction)

BUDGET 2017-2023 VS 2019-2025	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2017-2023 Adopted CIP	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0			\$200,000
2019-2025 Proposed CIP			416,000	1,698,000	54,000	210,000	0	0	0	2,378,000
Difference			\$416,000	\$1,698,000	\$54,000	\$210,000	\$0			\$2,178,000