

D-64 Storm Water System Conveyance Infrastructure Rehabilitation

Category: **High Quality Built & Natural Env** Status: **Ongoing**
 Department: **Utilities** Location: **Storm Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget	FY 2026 Budget	FY 2027 Budget
32,425,231	19,325,231	2,360,000	1,420,000	1,530,000	1,640,000	2,010,000	2,050,000	2,090,000

Description and Scope

This ongoing program repairs defective storm drainage pipelines, culverts and ditches identified in the Utility's condition assessment program or other means. Projects are prioritized based on the severity of deterioration, the risk and consequence of failure, and coordination with planned street improvement projects. As the system ages, costs are expected to increase. The Utilities' Asset Management Program is evaluating when system replacement will require significant increases to the budget.

Rationale

Storm infrastructure rehabilitation and replacement is based on asset criticality and business risk, per industry best practices. In the short term, this program reduces the likelihood of catastrophic system failures; traffic disruption due to failed culverts under streets; damage claims to the city; and utility rate spikes to respond to system failures rather than proactively managing the system. In the long term, timely replacement or repair of stormwater facilities keeps customer rates as low as practical by managing the system at the lowest life-cycle cost, while maintaining service levels and meeting regulatory requirements.

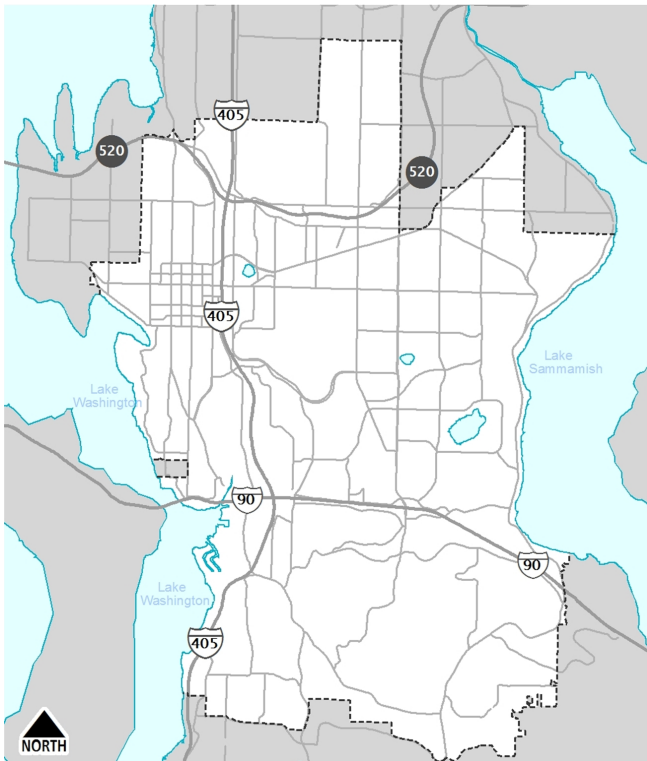
Environmental Impacts

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

Operating Budget Impacts

Estimated Annual M&O Costs: 0

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	Ongoing	32,425,231

Total Budgetary Cost Estimate: 32,425,231

Means of Financing

Funding Source	Amount
Utility Rates/Fees	32,425,231

Total Programmed Funding: 32,425,231
Future Funding Requirements: 0

Comments

S-24 Sewer System Pipeline Repairs and Replacement

Category: **High Quality Built & Natural Env** Status: **Ongoing**
 Department: **Utilities** Location: **Sewer Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget	FY 2026 Budget	FY 2027 Budget
51,255,785	25,545,785	2,720,000	3,310,000	3,480,000	3,310,000	3,180,000	4,540,000	5,170,000

Description and Scope

This program funds major repairs to sewer pipes where there is a cost-effective solution to extend the pipe's service life. Most defects are identified from the Utility's infrastructure condition assessment (video) program. Pipes are prioritized for repair based on risk of failure (likelihood and consequence), failure history, and to coordinate with other construction such as planned street overlays, which reduces restoration costs.

Rationale

Sewer infrastructure rehabilitation and replacement is based on asset criticality and business risk, per industry best practices. In the short term, this program reduces the likelihood of catastrophic system failures, damage claims, and sharp rate increases to react to failures rather than proactively managing the system. In the long term, timely replacement or repair of wastewater facilities keeps customer rates as low as practical by managing the system at the lowest life-cycle cost, while maintaining service levels and meeting regulatory requirements.

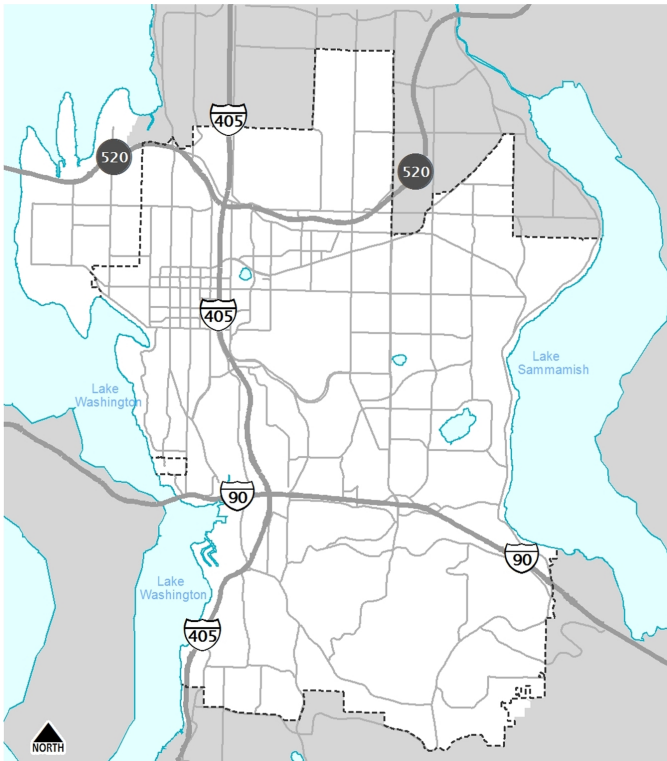
Environmental Impacts

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

Operating Budget Impacts

Estimated Annual M&O Costs: 0

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	Ongoing	51,255,785

Total Budgetary Cost Estimate: 51,255,785

Means of Financing

Funding Source	Amount
Utility Rates/Fees	51,255,785

Total Programmed Funding: 51,255,785
Future Funding Requirements: 0

Comments

D-109 Water Quality Retrofit ProgramCategory: **High Quality Built & Natural Env** Status: **Ongoing**Department: **Utilities**Location: **Storm and Sewer Service Area****Programmed Expenditures**

Programmed Expenditures	Appropriated To Date	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget	FY 2026 Budget	FY 2027 Budget
1,407,000	657,000	-	750,000	-	-	-	-	-

Description and Scope

This project will design and install three water quality retrofit improvements using biofiltration and rain garden techniques within city rights-of-way, where it will improve water quality from street runoff to Kelsey Creek. The Storm and Surface Water System Plan reported that over 38 percent of the city was developed without water quality treatment of stormwater. When stormwater management regulations were first established, they focused largely on flood control. Recent studies have demonstrated that roadway stormwater runoff kills Coho salmon. In 2014 there was 100 percent mortality of hatchery Coho salmon transplanted to Kelsey Creek. Studies show that filtering stormwater runoff through bio-retention soil mixes will clean the stormwater sufficiently to result in salmon survival. This project will improve stormwater quality, and improve fish survival. It lays the foundation for an ongoing program that Bellevue could use to meet water quality retrofit requirements. It aligns with many resource agency goals for water quality retrofit and low impact development BMPs, and positions Bellevue to be successful with grant applications from those agencies.

Rationale

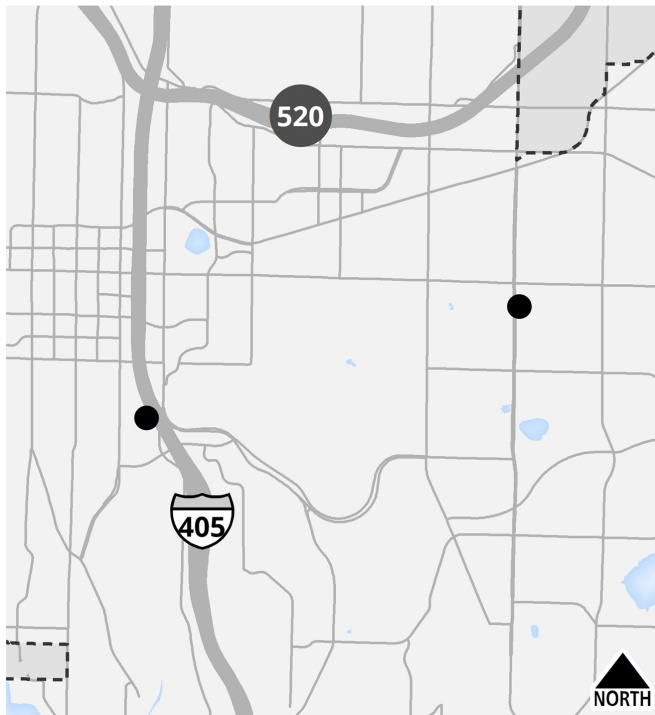
This project along with others in this proposal open salmon access to existing functional habitat, one of the quickest methods to increase salmon populations; helps stabilize streams and improve habitat consistent with Council-approved Lake Washington/Cedar/Sammamish Chinook Salmon Recovery Plan; improves water quality that limits fish viability; protects properties from flooding of structures, flooding which restricts access to residences or businesses, and street flooding that impacts primary emergency routes; restores streams for recreation and environmental health in the redeveloping Bel-Red Corridor; and reduce the potential for sewage overflow to surface water bodies.

Environmental Impacts

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

Operating Budget Impacts

Estimated Annual M&O Costs: 0

Project Map**Schedule of Activities**

Project Activities	From - To	Amount
Project Costs	2017 - 2022	1,407,000

Total Budgetary Cost Estimate: 1,407,000

Means of Financing

Funding Source	Amount
Utility Rates/Fees	1,407,000

Total Programmed Funding: 1,407,000
Future Funding Requirements: 0

Comments

D-105 Replace NE 8th St Culvert at Kelsey Creek

Category: **High Quality Built & Natural Env** Status: **Ongoing**
 Department: **Utilities** Location: **Storm Service Area**

Programmed Expenditures

Programmed Expenditures	Appropriated To Date	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget	FY 2026 Budget	FY 2027 Budget
4,376,000	4,376,000	-	-	-	-	-	-	-

Description and Scope

This project will replace the existing 10' wide by 7' tall, 110-foot long corrugated metal culvert built in the early 1980s that carries Kelsey Creek beneath NE 8th Street. To meet flood and fish passage requirements, the culvert will be replaced with a bridge which spans the creek channel, or a three-sided concrete box culvert with an approximate 15 foot span. The design will be determined by permit requirements.

Rationale

Storm infrastructure rehabilitation and replacement is based on asset criticality and business risk, per industry best practices. In the short term, this project reduces the likelihood of catastrophic system failures; traffic disruption due to failed culverts under streets; damage claims to the city; and utility rate spikes to respond to system failures rather than proactively managing the system. In the long term, timely replacement or repair of stormwater facilities keeps customer rates as low as practical by managing the system at the lowest life-cycle cost, while maintaining service levels and meeting regulatory requirements.

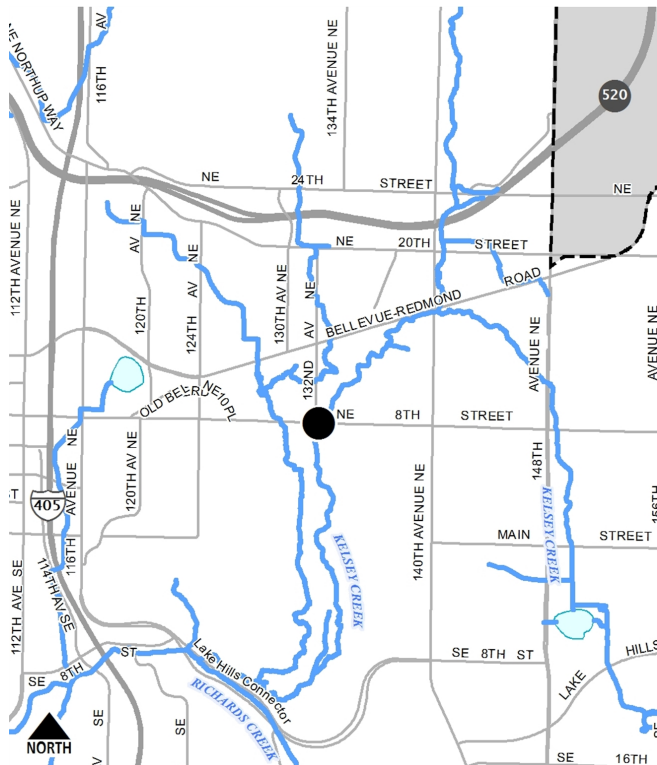
Environmental Impacts

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

Operating Budget Impacts

Estimated Annual M&O Costs: 0

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2014 - 2023	4,376,000

Total Budgetary Cost Estimate: 4,376,000

Means of Financing

Funding Source	Amount
Utility Rates/Fees	4,376,000

Total Programmed Funding: 4,376,000
Future Funding Requirements: 0

Comments