

S-66 Sewer System Pipeline Replacement

Category: **Sewer**
 Department: **Utilities**

Status: **Ongoing**
 Location: **Various locations throughout Sewer 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
9,412,100	1,170,100	1,102,000	1,132,000	1,154,000	1,178,000	1,201,000	1,225,000	1,250,000

Description and Scope

This program replaces poor condition sewer pipe throughout the service area. The current budget is estimated to replace sewer pipe at a rate of 0.5 to 0.75 miles per year. Pipes are replaced when life cycle cost analysis indicates replacement is more economical than continuing to make point repairs. Replacement methods may include trenchless rehabilitation techniques such as cured-in-place pipe, and pipe bursting, and/or open trench replacement. This program compliments S-24, Sewer System Pipeline Repair, which repairs pipes to extend their service life. This program implements Bellevue's asset management program strategy to meet expected and required customer service levels at the lowest life cycle cost.

Rationale

Many sewer pipes are over 60 years old, approaching their useful life. Many have required multiple repairs to prevent new and/or respond to reported sewage overflows. The cost to repair and maintain aged, cracked pipes and keep them free of roots and other debris eventually exceeds the cost to replace the pipeline. Several miles of sewer pipe have been identified as candidates for rehabilitation/replacement. As the system ages more will be identified. The program helps manage the number of sewer failures, reduce damage claims and emergency repairs (reactive repairs generally cost at least 50% more than proactive replacement), and allows improved coordination with planned street work.

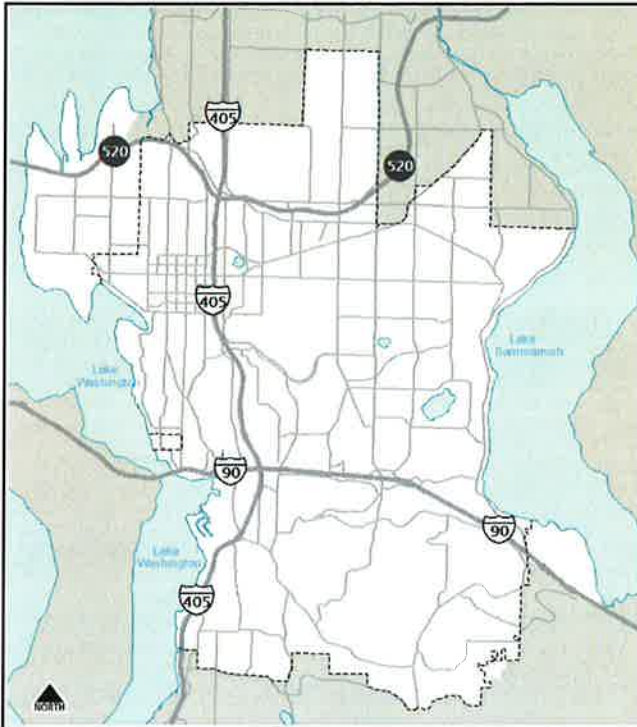
Although this program's funding levels do not provide the resources for a long term sustainable level of pipeline replacement, it allows Bellevue Utilities to replace some pipelines that have clearly reached the end of their useful economic life. The proposed replacement rate of up to 0.75 miles of pipe per year implies that sewer pipe system-wide would need to last an average of more than 650 years, much longer than the EPA's recommendation of 100 years. While sufficient for now, the annual program budget will need to increase as the system ages, to continue to meet asset management program goals.

Environmental Impacts

The environmental impacts and the State Environmental Protection Act (SEPA) requirements will be determined for each replacement segment, but they are generally SEPA exempt. Replacing pipe that is in poor condition will reduce the likelihood of sewage escaping the piped system, and the associated harmful environmental impacts.

Operating Budget Impacts

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2013 - 2021	9,412,100

Total Budgetary Cost Estimate: 9,412,100

Means of Financing

Funding Source	Amount
Utility Rates/Fees	9,412,100

Total Programmed Funding: 9,412,100

Future Funding Requirements:

Comments