

## FY2019-2025 Capital Investment Program

**W-16 Small Diameter Water Main Replacement**

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

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

**Programmed Expenditures**

<b>Programmed Expenditures</b>	<b>Appropriated To Date</b>	<b>FY 2019 Budget</b>	<b>FY 2020 Budget</b>	<b>FY 2021 Budget</b>	<b>FY 2022 Budget</b>	<b>FY 2023 Budget</b>	<b>FY 2024 Budget</b>	<b>FY 2025 Budget</b>
<b>162,281,885</b>	<b>83,042,885</b>	<b>16,040,000</b>	<b>9,914,000</b>	<b>10,113,000</b>	<b>10,317,000</b>	<b>10,736,000</b>	<b>10,950,000</b>	<b>11,169,000</b>

**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 percent cost increase reflecting actual bid experience for pipe replacement.

**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.

**Operating Budget Impacts**

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

**Project Map****Schedule of Activities**

<b>Project Activities</b>	<b>From - To</b>	<b>Amount</b>
Project Costs	Ongoing	162,281,885

**Total Budgetary Cost Estimate:** 162,281,885

**Means of Financing**

<b>Funding Source</b>	<b>Amount</b>
Utility Rates/Fees	162,281,885

**Total Programmed Funding:** 162,281,885  
**Future Funding Requirements:** 0

**Comments**