

W-98 Replacement of Large Commercial Water Meters

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

Status: **Ongoing**
 Location: **Various locations throughout Water 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 |
|-------------------------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 5,720,308 | 1,882,308 | 581,000 | 516,000 | 527,000 | 537,000 | 548,000 | 559,000 | 570,000 |

Description and Scope

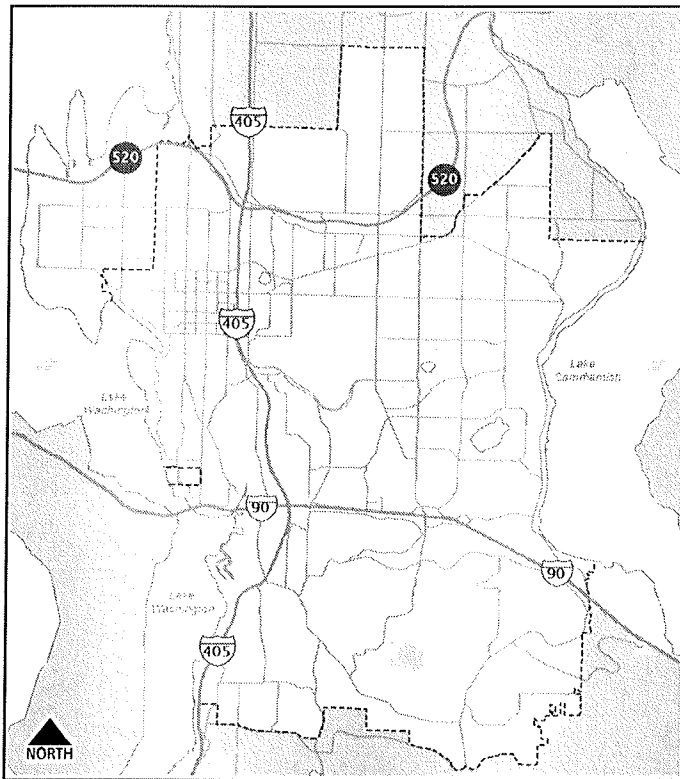
This program systematically replaces older, obsolete high-volume commercial water meters (3" and larger) as they wear out. Because of their location and condition, these meters pose safety and access concerns and are generally beyond the ability of O&M crews to change out. Improved performance accuracy is a secondary benefit of the program. This ongoing program replaces approximately 4 commercial meters (and meter vaults, if required) each year.

Rationale

A 2003 Water Loss Study identified that older commercial meters 3-inches and larger may significantly under-register flows passing through them, and become less accurate over time. There are 279 of these meters in our system out of over 35,000 total meters. These 3-inch and larger meters account for nearly 30% of the total volume of water sold. Water meters typically begin to under-record usage when they reach 10-20 years old. Of Bellevue's 279 commercial meters, less than 100 were installed in the past 10 years; more than 40 are older than 25 years. The revenue lost by the meter inaccuracies affects both the water and sewer utilities, since sewer rates are based on winter water usage. This investment ensures equitable water charges by accurately measuring the water consumed. This results in more accurate rate allocation among user classes (residential and commercial customers), and reduced unaccounted (and non-revenue producing) water. A secondary program benefit is to resolve safety issues at 75 of the meters, which cannot currently be read remotely. Many of these oldest meters are in vaults which need to be replaced to accommodate the new meters, and to meet current safety/access standards. Vault replacement adds to the complexity and cost. The current budget funds replacement of 3-4 meters/year for locations where the vault must be replaced.

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

| Project Activities | From - To | Amount |
|--------------------|-------------|-----------|
| Project Costs | 2005 - 2021 | 5,720,308 |

Total Budgetary Cost Estimate: 5,720,308

Means of Financing

| Funding Source | Amount |
|--------------------|-----------|
| Utility Rates/Fees | 5,720,308 |

Total Programmed Funding: 5,720,308

Future Funding Requirements:

Comments