

## Capital Programs



As the water utility for the fifth largest city in the United States, the Philadelphia Water Department (PWD) delivers water to a population of over 1.7 million and carries sewage for treatment from a population of more than 2.2 million customers through over 6,500 miles of underground infrastructure. Upgrading and maintaining the complex facilities, pipes, and programs that ensure the delivery of consistent and safe water and sewer service to Philadelphia is the core of PWD's mission. Investments in infrastructure not only maintain assets for future generations, they also help to cut down on costly emergency repairs.

PWD Capital programs consist primarily of:

- **Maintenance and upgrades at PWD's 6 water and wastewater treatment facilities**

The 6 treatment facilities in addition to the privately operated biosolids recycling facility require a large portion of the Department's operating and capital resources to maintain.

- **Water distribution system monitoring, maintenance and replacement**

PWD is responsible for over 3,200 miles of water main pipes. Water mains are systematically monitored for leaks and to determine whether the Department's capital investment is effectively lowering the break rate. Over the last 30 years, main breaks are down more than 25%. Leak detection prompts repairs that maximize the useful life of costly pipes.

- **Sewer maintenance monitoring and replacement**

PWD is responsible for over 3,600 miles of sewers collecting approximately 430 million gallons of sewage per day. Regular inspections (conducted using video surveillance since 2005) of the sewer system provide information used to prioritize essential sewer repair needs. It is anticipated that over time the video assessment project will result in a reduction of costly and disruptive emergency sewer repairs.

- **Flood relief projects**

Monitoring and modeling wet weather events allows PWD to develop strategic stormwater management plans to bring relief to flood prone areas.

- **Combined Sewer Overflow Relief and Regulatory requirements**

Significant funds must be budgeted to meet the mandatory regulations set by the United States Environmental Protection Agency (EPA), the Pennsylvania Department of Environmental Protection (PA DEP) and the Delaware River Basin Commission (DRBC). These requirements pertain to biosolids treatment and utilization, watershed protection, combined sewer overflow mitigation and stormwater management.

PWD's Green City, Clean Waters program will reduce combined sewer overflows through large scale implementation of green stormwater infrastructure City-wide. This approach focuses on controlling pollution at its source and improving water quality by mimicking natural systems that slow down, infiltrate and manage stormwater, helping to restore the urban environment.