



Capital Improvement Program

Capital program planning at the Water Bureau is a collaborative effort among CIP Planning, Asset Management, and Engineering teams. The primary drivers of the bureau's capital work are ensuring the reliable functioning of the drinking water system, replacing assets that are at or near the end of their useful lives, and maintaining compliance with federal and state drinking water regulations. The bureau combines asset-management planning with master planning and other types of studies to recommend the most effective mix of capital projects for a five-year budget cycle.

FY 2016-17 Major Accomplishments

In Fiscal Year (FY) 2016-17, the bureau invested almost \$60 million to ensure a reliable water system, maintain regulatory compliance, and contribute to Portland's growth. Almost half of the funds were invested in more than 200 projects in the distribution system—the network of pipes, pumps, valves, and hydrants that deliver water to homes and business throughout the city. Major accomplishments include

- Starting operations at the **Hannah Mason Pump Station (\$18.6 million)**, which replaces the Fulton Pump Station and adds flexibility for west-side water operations.
- Beginning the design to safeguard the **Willamette Boulevard Bridge Main (\$4.5 million)**, the primary supply to North Portland.
- Supporting the economic vitality of Portland through projects for **water mains in support of new development** or **utility relocation work for other bureaus**. This resulted in **975 new water service installations** during the fiscal year.

PWB MAJOR BUDGET PROGRAMS

Customer Service
Distribution
Regulatory Compliance and Water Quality
Supply
Support
Transmission and Terminal Storage
Treatment



The new Hannah Mason Pump Station in Willamette Park provides system reliability, resilience to natural hazards and improved operating efficiency.

Ensuring Seismic Resilience and System Readiness

The bureau has several projects to ensure that major elements of the water system are resilient and will be ready for the next generation of water customers. In FY 2016-17, bureau milestones included:

- Kicking off the construction phase of the **Washington Park Reservoir 3 Project (\$190 million)**, to construct an enclosed seismically reinforced underground reservoir on the west side of Portland.
- Completing the **Water System Seismic Study (\$1.5 million)** to assess the performance of the water system in a magnitude 9 earthquake. The recommendations will help the bureau strengthen the system to provide water after a large earthquake. The bureau is currently assessing resource needs and developing a coordinated plan.
- **Inspecting nearly 8 miles of the interior of Conduit 3 (\$1.8 million)**, one of the large pipes that carry water from the Bull Run Watershed to the reservoirs at Powell Butte.
- Began updating the **Supply System Master Plan (\$2.2 million)** to identify the long-term needs and direction for ensuring the reliability of the supply, storage, and transmission systems. The master plan is due to be completed in 2020.
- Completing the planning for a project to design and construct a **Corrosion Control Treatment Facility (\$20 million)** at the Lusted Hill Treatment Facility.

The bureau also started updates to essential systems for communications and customer service:

- The **Microwave Communications System (\$2.2 million)** upgrade will replace an obsolete system with reliable equipment that will allow for greater flexibility in transmitting monitoring data, system controls, radio signals, and some voice communications.
- The **Cayenta Upgrade (\$0.9 million)** will update the utility billing software with a new version that will add more self-service options for customers and improve the underlying database and server operating system.

Milestones for FY 2018-19 Budget Development

