

Washington

Water loss is a particularly important issue in Washington, where approximately 86% of the population is served by public water suppliers. The US Geological Survey (USGS) estimates that in 2015 (the most recent year available), Washington's public water suppliers withdrew an average of about 866.53 million gallons of water per day for treatment and distribution to customers. Those public water suppliers face enormous challenges when it comes to replacing and repairing their systems. The U.S. Environmental Protection Agency (EPA) recently found a 20-year capital improvement need of more than \$11.73 billion for Washington's water systems to continue to provide safe drinking water.

The agency with jurisdiction over water loss reporting is the Washington State Department of Health (DOH). In 2003, the state legislature passed the Municipal Water Supply-Efficiency Requirement Act, also known as the Municipal Water Law (MWL). To carry out the law, DOH adopted the Water Use Efficiency Rule (January 22, 2007) requiring public water systems serving at least 15 residential service connections to achieve a standard of no more than 10% water loss. Additionally, water systems are required to submit annual water use efficiency reports. Systems with average distribution leakage over a 3-year period that exceeds 10% (or an alternative metric if approved by DOH) are required to develop and implement a water loss control plan to meet the leakage standard, which must include an implementation schedule and a budget. Depending on how high the leakage rate is, the plan is subject to additional minimum requirements.

DOH is providing information on its website to encourage use of the AWWA method for water loss audits, but has not required it. DOH began a Water Audit Technical Assistance Pilot Program in late 2017, with ten water utilities working with water loss control experts to gather water audit data, compile and validate water audits, value water loss volumes, and evaluate cost-effective water loss control opportunities. This free pilot program uses the American Water Works Association (AWWA) methodology for water loss accounting and water loss control best practices to comply with the Water Use Efficiency Rule. The ten utilities that participated in the water audit pilot program are:

- City of Arlington
- City of Camas
- Clark Public Utilities
- Fruitland Mutual Water
- Liberty Lake Sewer and Water District
- Nob Hill Water
- Stevens Public Utility District
- Tacoma Water
- City of Walla Walla
- Yakima Water

The Final Report of the Pilot Program recommended that all drinking water annual reporting should use AWWA water audit methodology, and that state water loss regulation eventually shift from percentage-

based requirements to performance metrics based on loss volumes. The Final Report of Results and Recommendations of the Washington Water Audit Pilot can be found here:

<https://www.nrdc.org/resources/washington-water-audit-pilot-program-final-report-results-and-recommendations>.

Department of Health Water Use Efficiency -

<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemDesignandPlanning/WaterUseEfficiency>

DOH's pilot program to reduce water loss -

<https://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemDesignandPlanning/WaterUseEfficiency/ControllingWaterLoss>

Municipal Water Law - http://www.doh.wa.gov/Portals/1/Documents/4200/1338_Text.pdf

Controlling Water Loss -

<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemDesignandPlanning/WaterUseEfficiency/ControllingWaterLoss>

Rule Reference: WAC 246-290-820 – Distribution Leakage Standard -

<http://app.leg.wa.gov/wac/default.aspx?cite=246-290-820>

U.S. Geological Survey's "Estimated Use of Water in the United States County-Level Data for 2015", September 28, 2017- <https://www.sciencebase.gov/catalog/item/59a96d18e4b07e1a023db323>

EPA's "Drinking Water Infrastructure Needs Survey and Assessment, Sixth Report to Congress", March 2018 - https://www.epa.gov/sites/production/files/2018-03/documents/sixth_drinking_water_infrastructure_needs_survey_and_assessment.pdf