

Hawaii

Water loss is a particularly important issue in Hawaii, where approximately 96% of the population is served by public water suppliers. The US Geological Survey (USGS) estimates that in 2015 (the most recent year available), Hawaii's public water suppliers withdrew an average of about 266.92 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 \$1.15 billion for Hawaii's water systems to continue to provide safe drinking water.

The agency with jurisdiction over water loss reporting is the Hawaii Department of Land and Natural Resources – Commission on Water Resource Management (WRM). As a function of implementation of the Hawaii Water Conservation Plan, the WRM Commission has educated and encouraged public water systems to do water loss auditing.

On July 1, 2016, Governor David Ige signed into law SB 2645 (Act 169), which established a standardized statewide water-loss audit program. Under this new law, the WRM Commission is responsible for executing a five-year program that will require all large capacity public water systems and public water systems in designated water management areas in Hawaii to complete and validate a yearly water loss audit following the principles and terminology in the American Water Works Association (AWWA)'s Water Audits and Loss Control Programs. The Commission has created the Hawaii Water Audit Validation Effort (WAVE) program to fulfill the training requirements of Act 169.

The WAVE program has two phases that will help all public water systems file water audits by July 1, 2020. Phase 1 focused on all 52 County-owned public water systems to file annual water audit reports by July 2018, and each year thereafter. Phase 2 will focus on public water systems serving a population of 1000 or more and systems in water management areas to file annual water audit reports by July 2020, and each year thereafter. Additionally, each water loss audit report submitted to the commission is to be accompanied by information identifying steps taken in the preceding year to increase the validity of data entered into the final audit, reduce the volume of apparent losses, and reduce the volume of real losses.

Thus, by July 2020, fifty-two county-run public water systems statewide and another fifty-large capacity public water systems and public water systems operating in designated ground water management areas in Hawaii will be submitting annual water loss audit reports using the AWWA's software and methodology. Then it will be up to the public water systems to use the water audit results to develop a water loss control program.

Department of Land and Natural Resources - <http://dlnr.hawaii.gov/cwrm/planning/conservation/>

Hawai'i Water Audit Validation Effort - <http://www.hawaiiwaterloss.org/>

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

Act 169 (took effect on July 1, 2016)

http://www.capitol.hawaii.gov/measure_indiv.aspx?billtype=SB&billnumber=2645&year=2016

<http://files.hawaii.gov/dlnr/cwrm/planning/Act%20169%20GM%202171.pdf>