

Water Use Efficiency

Update - Implementation of the Municipal Water Law Requirements



January 2016

In 2003, the Washington State Legislature passed the Municipal Water Supply-Efficiency Requirements Act (2ESSHB 1338). This law provides flexibility for municipal water rights to serve growing communities by reducing the risk of relinquishment. In exchange for this water right flexibility, the law required new standards for water use efficiency (WUE).

The Legislature directed the Department of Health (department) to establish a WUE rule to reflect the law, which was adopted on January 22, 2007. Over 2,100 public water systems are affected by the rule and are required to:

- Establish water savings goals for customers and implement water saving actions that promote water efficiency.
- Develop a long-term WUE plan to support the established goals.
- Install source meters immediately and service meters on all customer connections by January 22, 2017.
- Collect and report water use information annually.
- Reduce water loss to 10 percent or less.

WUE Reporting

For each of the past eight years, over 90 percent of water systems have submitted an annual WUE report. This report includes:

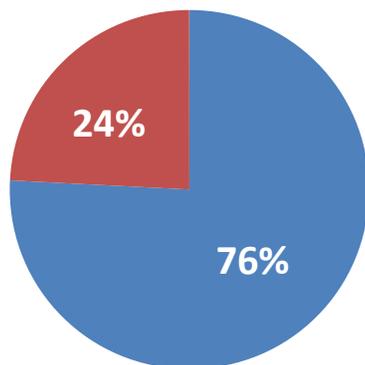
- Metered data from sources and customers.
- Progress towards achieving customer goals.
- Water loss volume and percent.

Reporting

Annual water use reporting by the municipal sector has led to an increase in understanding and better management of water resources. The department's easy-to-use online reporting database helps water systems submit their data each year. Water systems demonstrate their commitment to long-term water management by knowing how water use varies from year to year and how best to manage that resource, especially in times of scarcity. The annual report ensures regular evaluation and performance of WUE efforts for the water system, their customers, the general public and the department.

WUE Customer Goals to Promote Conservation

■ Water Reduction Target Identified ■ No Target Identified



*Based on analysis of 2014 annual WUE reports.

WUE Goal Setting

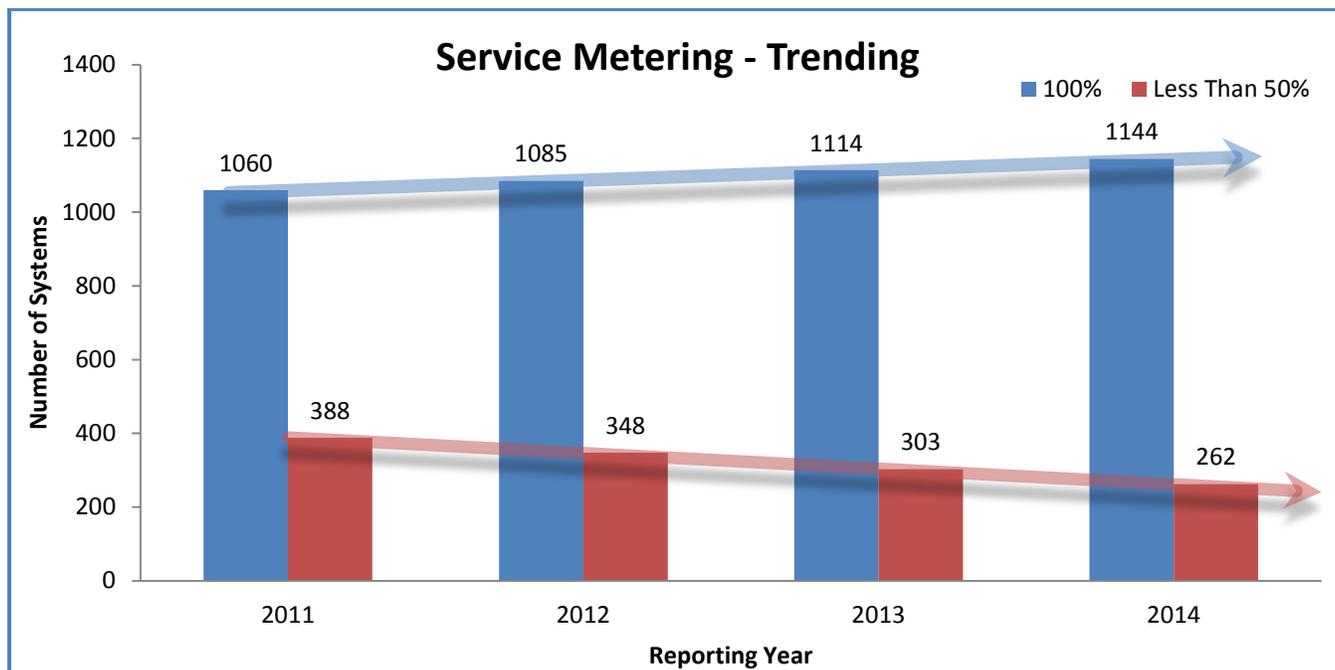
Water efficiency goals establish the fundamentals of a sustainable water management program for public water systems. Both supply and demand water use reduction targets help water managers make decisions about what strategies to implement when planning for short- and long-term water efficiency. Through a public process, water systems must periodically establish demand-side goals that aim to reduce water consumption. This requirement ensures that water systems understand their customers' water use behaviors and re-evaluate WUE programs and goals on a regular basis.

Data analysis of the 2014 WUE reports identified 76 percent of water systems met the minimum criteria for compliance. Some of the most common types of WUE goals identified in the annual WUE report includes:

- 2 to 5 percent reduction in consumption over the next 5 to 6 years.
- 1 to 3 percent reduction in consumption annually.
- Reduce peak summer demand by 3 percent.

Metering

New standards for supply-side efficiency have prompted water systems to take a much closer look at the quality of data collected from source and service meters. Once the source and service meters are in place and read regularly, water systems can begin identifying real and apparent water losses. Meters provide information about variations in customers' water use patterns and aids in establishing WUE goals, understanding peak demand and evaluating financial viability. The deadline for installing meters on all customer connections is January 22, 2017.



Steady progress has been made to install service meters since 2011. Upon review of the latest annual WUE reports, many water systems describe plans to complete installation in 2016.

Water Loss Control

Since adoption of the WUE rule, “accountability” is the word that best describes how the municipal water sector has changed how they view water loss. In order to meet the 10 percent distribution system leakage standard, water systems continue to improve how they track and report water use information. Through leak detection surveys, fixing leaky pipes, tanks and reservoirs, conducting water audits, and installing, calibrating or replacing meters, they are better able to account for all water use. A more efficient water system also saves money and energy through reducing chemical treatment costs, energy costs for pumping, distributing, and capturing lost revenue through more accurate meters.

Water Loss

The statewide average water system losses have steadily decreased, averaging 9.6 percent in 2014.

For more information:

Mike Dixel, WUE Program Lead, michael.dixel@doh.wa.gov, 360-236-3154.