



# Data Validation: Improve Your Annual WUE Report

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Your annual water use efficiency (WUE) report includes metered information that indicates volume and percent of distribution system leakage (DSL). Two values entered into the WUE report automatically calculate DSL. One, from your source and intertie meters, is total production. The other, derived from your service meters (including any authorized unmetered uses), is authorized consumption. The difference between total production and authorized consumption is volume and percent DSL for the year.

## Why is accuracy so important in my WUE report?

The process of collecting and reporting accurate data will help you understand how non-revenue water affects your water system. Inaccurate meters, water theft, not accounting for or billing for authorized uses, and real losses that occur within a water system all lead to less revenue and increased expenses. As you track those losses down, you will learn more about where your water goes and how to improve operations and financial management of your water system.

## What data do I report as "Authorized Consumption" on the WUE report?

Add the annual total of all metered water use to the annual estimated and authorized unmetered uses, such as water main flushing, firefighting, or water tank cleaning. We recommend you collect service meter data monthly, so you have meaningful data to make decisions and to understand water consumption variations. You can also use it to evaluate rate structures, identify water-saving opportunities, find and fix leaks faster, and evaluate progress on meeting goals.

Unmetered connections to a customer such as a business, home, or playfield should not count as part of authorized consumption. Those connections need a meter. Without a meter they will show up as a portion of your DSL.

## Why do I get a negative value when I report source and service meter data?

Every year, up to 6 percent of water systems report negative leakage. This could mean:

**Inaccurate source or intertie meters.** If you don't have a meter calibration program, start one now and test for accuracy at least every two years. If you buy water from another water supplier, find out how often the supplier calibrates those intertie meters.

**Wrong type of source meter or incorrectly installed source meter.** Not all meters are the same, ask an expert for advice about the style and installation requirements for your situation.

## My average water loss is less than 2 percent. Why is that a problem?

Unless the water system is brand new, reported average leakage values that low raise suspicion about the accuracy of the data itself. Apparent losses from things such as inaccurate service meters, theft, or inaccurate estimates of firefighting uses may contribute to very low water loss values. Remember, this could be non-revenue water, which affects your financial bottom line. If

you find out your average leakage rate is higher than you think, you may be throwing money out the window.

I have a flat rate, so why should I worry about collecting metered data?

Collecting metered data every month and making it available to customers can alert homeowners or businesses to a leak on their property. And in a drought year, you can see how monthly water use changes within the community and work with customers to reduce their consumption to protect the stressed water supply. Nobody wants to run out of water simply because a few customers are using a high proportion of the community's water. A flat rate is also unfair to customers who use less water.

Are there consequences for reporting inaccurate metered data?

We've heard of at least two water systems in Washington that faced consequences for reporting very high or negative water loss values. A customer sued one and the State Auditor's Office investigated the other. From the Department of Health's viewpoint, these values may raise concern about the financial, technical, and managerial capacity of a water system. And, if the certified operator collected and reported the data, it may raise questions about the integrity of other data reported.

Other WUE resources

#### **WUE Data Collection Tool**

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

#### **WUE Data Validity Webpage**

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

#### **WUE Website**

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

For more information:

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