



CITY OF MEDICAL LAKE 2019 WATER EFFICIENCY REPORT

WATER USE EFFICIENCY RULE

In 2003, the Washington State Legislature passed Engrossed Second Substitute House Bill 1338, more commonly known as the Municipal Water Law. One of the provisions of the law was to direct the State Department of Health (DOH) to develop and adopt rules governing water use efficiency and water conservation by public water systems throughout the state. After a lengthy process, the Water Use Efficiency (WUE) Rule was adopted in January of 2007. The WUE Rule requires that public water systems develop water use efficiency and conservation goals. The City developed both supply side (City) and demand side (customer) goals and measures to achieve those goals. A public hearing was held on November 3, 2009 to receive public input and adopt the presented goals and measures. In 2015, the City initiated an update of its Comprehensive Water System Plan, including within the plan an update of the WUE plan and goals. The WUE Rule requires public water systems to report annually to their customers on the progress they are making toward reaching the set goals. This report details the goals and measures adopted and how the City is working towards meeting them.

WATER USE EFFICIENCY GOALS AND MEASURES

The City adopted the following WUE goals for the years 2019 through 2025 at the WSP Informational/SEPA Determination/WUE Goal Assessment & Adoption Public Meeting, held on April 4th, 2019

Supply Side (City) Goal

1. Distribution system leakage of 10% or less of production

Measures to Achieve Goal

- Continued replacement of aging water meters with new radio read meters;
- Repair water leaks in a timely manner;
- Track all water usage including bulk water (ie. Water used when flushing water mains, Fire Department use, etc.)
- Annual leak detection as needed;
- Replacement of leaking service lines with non-corroding plastic pipe.

Demand Side (Customer) Goal

1. Reduce the gallonage use per ERU by 1% over the next 2 years.

The below measures make up the City's WUE Program. The goal shall be evaluated by re-calculating the gallonage use per ERU (Equivalent Residential Unit, i.e. single-family residence) per year after each 2-year period. The current ERU factor per Section 2.1 of the City's Comprehensive Water System Plan is 141,988 gallons/year. This is the average usage for single family homes in the City. With a 1% reduction over 2 years, this equates to an ERU Factor goal of the following:

Year	2019	2021	2023	2025
Gallons/ERU	141,988	140,568	139,162	137,771

If the goal is met, this equates to a 3% reduction in average household annual usage. The City will then use this information and the effectiveness of the results in re-establishing their goal and elective measures.

Mandatory Measures to Achieve Goal

- Production meters on all sources.
 - All sources are adequately metered.
- Service meters on all service connections.
 - All service meters are adequately metered.
- Calibrate and properly maintain all meters.
 - All source and service meters have been adequately metered.
- Implement a Water Loss Control Action Plan if DSL is over 10%.
 - Current DSL is below 10%.
- Educate customers about water use efficiency precautions.
 - Informational brochures are mailed to account holders along with their bill.

The City currently meets all mandatory measures.

Elective Measures to Achieve Goal

- Continued summer water restrictions
- Utilize reclaimed water from the City's wastewater treatment facility for large irrigation areas (parks, cemeteries, etc.);
- Use the City's website to provide conservation education;
- Use the City's website to inform customers of Spokane County Conservation District workshops.
- Once fully operational, the City will use their AMR system to pinpoint certain neighborhoods or specific residents who use more than the average amount of water (not including irrigation). This is done by comparing the average annual usage per single family resident.
- Provide low-flow shower heads for customers and advertise them on the City's website and mailing brochures.

The City is currently engaging in these elective measures at different intensities. More information can be found in Chapter 4 of the City's Comprehensive Water System Plan.

SUMMARY OF PROGRESS

The City of Medical Lake Wastewater Treatment Facility (WWTF) continues to produce Class A reclaim water, of which the following facilities put to beneficial use (all amounts listed are yearly totals for 2018)

Shepard Field: 2,036,000 gallons

WWTF Grounds: 5,126,000 gallons

Washington State Veterans Cemetery (via West Medical Lake): 18,734,931 gal.

West Medical Lake (WWTF Outfall #1): 56,502,000 gallons.

By the end of 2015, the City had replaced approximately 1445 of the 1450 total meters on the water system with new radio read capabilities, a project that has spanned the previous five years.

The City, by ordinance, enforces outside irrigation restrictions beginning June 1st and ending October 1st. Restrictions consist of no outside irrigation between the hours of 10 a.m. and 7 p.m., eliminating water loss due to evaporation during the warmest portions of the day.

The City uses its website to post pertinent information on water conservation, workshops and educational materials.

The City employs an escalating water rate, providing a financial incentive for consumers to use less water, especially for outside irrigation. An escalating water rate is a water rate that increases based on the amount of water used. For example, the rate for using zero to 20,000 gallons per month is less than using 30,001 to 40,000 gallons of water per month, and so on.

2018 WATER USE STATISTICS

Water Purchased and Produced:	275150,000 gallons;
Water Sold:	250,043,998 gallons;
Water Unaccounted for:	22,125,000 gallons;
Percentage of Water Unaccounted for:	8.04%
Average of Water Unaccounted for (2015 thru 2018):	7.96%