

PUBLIC UTILITY DISTRICT #1 OF MASON COUNTY
WATER USE EFFICIENCY GOALS AND MEASURES - SEPTEMBER 2018

PROCESS OVERVIEW

Water Use Efficiency is proactive approach to protect public health and water supplies. The Department of Health was directed by the Legislature to adopt an enforceable Water Use Efficiency Program (WUE) effective in January of 2007. The creation of a regulatory WUE program is intended to achieve a consistently high level of stewardship among all municipal water suppliers. The law establishes that all municipal water suppliers must use water more efficiently in exchange for water right certainty and flexibility to help them meet future demand.

One of the most important steps in using water efficiently is setting goals that can be measured. Goals provide a benchmark for achievement and play a significant role in defining the success of our water WUE program. The WUE program requires water systems to pay attention to their usage patterns by reporting annually and managing water loss. For most water systems, conserved water can be the least costly source for new supply.

The District must set WUE goals through a public process every six years and report annually on their performance to their customers and the DOH (WAC 246-290-830).

The average DSL for all Group A systems combined is approximately 27% (not including newly acquired systems). The standard set by the Municipal Water Law is 10% or less for each system. Systems are encouraged to meet this goal 3 years after the system is fully metered.

The number of measures required for a water system is based on the number of connections. All Mason PUD #1 water systems have less than 1000 connections, therefore, all systems must be assigned a minimum 4 WUE measures.

Ever the next 6 years, combined estimated water savings will be 22.5 million gallons.

Group A Systems

DSL Group	Count
GROUP 1	13
GROUP 2	8
GROUP 3	5
GROUP 4	3
GROUP 5	4
GROUP 6	6

PUBLIC UTILITY DISTRICT #1 OF MASON COUNTY

PROPOSED WATER USE EFFICIENCY GOALS AND MEASURES - SEPTEMBER 2018

GOAL GROUP 1: 10% or less Distribution System Leakage (DSL)

Production:

Goal 1: Maintain DSL levels to 10% or less.

Consumption:

Goal 1: Reduce summer peak daily demand by 1% per ERU in 6 years.

Goal 2: Maintain ADD and summer peak daily demand.

Measures:

- Identify and repair Leaks as soon as they are discovered.
- Educate all consumers about irrigation conservation and peak water demand twice a year.
- Conservation rate structure for all consumers.
- Consumption history shown on all water bills.
- Water conservation and landscape water use part of the water policy.
- Water conservation information on the MCPUD1 Website.

GOAL GROUP 2: >10%-20% DSL

Production:

Goal 1: Reduce DSL to 10% or less in 6 years.

Goal 2: Reduce total annual water production by 1% per ERU in 6 years.

Goal 3: Reduce peak month production by 1% per ERU in 6 years.

Consumption:

Goal 1: Reduce ADD by a minimum of 1% in 6 years.

Goal 2: Reduce summer peak daily demand by 2% in 6 years.

Measures:

- Develop "Water Loss Control Action Plan".
- Conservation rate structure for residential and commercial use.
- Identify and repair Leaks as soon as they are discovered.
- Educate all consumers about irrigation conservation and peak water demand twice a year.
- Consumption history shown on all water bills.
- Water conservation and landscape water use part of the water policy.
- Water conservation information on the MCPUD1 Website

GOAL GROUP 3: >20%-30% DSL

Production:

- Goal 1: Reduce DSL to 15% in 6 years.
- Goal 2 : Reduce DSL to 10% in 12 years.
- Goal 3: Reduce total annual water production by 1% in 6 years.
- Goal 4: Reduce peak month production by 2% per ERU in 6 years.

Consumption:

- Goal 1: Reduce ADD by a minimum of 1% in 6 years.
- Goal 2: Reduce summer peak daily demand by 2% in 6 years.

Measures:

- Develop “Water Loss Control Action Plan”.
- Conduct an AWWA water audit.
- Identify and repair Leaks as soon as they are discovered.
- Educate all consumers about irrigation conservation and peak water demand twice a year.
- Conservation rate structure for all consumers.
- Consumption history shown on all water bills.
- Water conservation and landscape water use part of the water policy.
- Water conservation information on the MCPUD1 Website

GOAL GROUP 4: >30%-40% DSL

Production:

- Goal 1: Reduce DSL to 20% in 6 years.
- Goal 2 : Reduce DSL to 15% in 12 years.
- Goal 3: Reduce total annual water production by 1% in 6 years.
- Goal 4: Reduce peak month production by 2% per ERU in 6 years.

Consumption:

- Goal 1: Reduce summer peak daily demand by 2% in 6 years.
- Goal 2: Reduce peak month ADD by 2% in 6 years.

Measures:

- Develop “Water Loss Control Action Plan”.
- Conduct an AWWA water audit.
- Identify and repair Leaks as soon as they are discovered.
- Educate all consumers about irrigation conservation and peak water demand twice a year.
- Conservation rate structure for all consumers.
- Consumption history shown on all water bills.
- Water conservation and landscape water use part of the water policy.
- Water conservation information on the MCPUD1 Website

GOAL GROUP 5: >40%-50% DSL

Production:

- Goal 1: Reduce DSL to 25% in 6 years.
- Goal 2 : Reduce DSL to 15% in 12 years.
- Goal 3: Reduce total annual water production by 1% in 6 years.
- Goal 4: Reduce peak month production by 1% per ERU in 6 years.

Consumption:

- Goal 1: Reduce peak daily demand by 2% per ERU in 6 years.
- Goal 2: Reduce peak month ADD by 2% in 6 years.

Measures:

- Develop “Water Loss Control Action Plan”.
- Conduct an AWWA water audit.
- Identify and repair Leaks as soon as they are discovered.
- Educate all consumers about irrigation conservation and peak water demand twice a year.
- Conservation rate structure for all consumers.
- Consumption history shown on all water bills.
- Water conservation and landscape water use part of the water policy.
- Water conservation information on the MCPUD1 Website

GOAL GROUP 6: Greater than 50% DSL

Production:

- Goal 1: Reduce DSL by 50% of current level in 6 years.
- Goal 2 : Reduce DSL to 20% in 12 years.
- Goal 3: Reduce total annual water production by 1% per ERU in 6 years.
- Goal 4: Reduce peak month production by 2% per ERU in 6 years.

Consumption:

- Goal 1: Reduce summer peak daily demand by 3% per ERU in 6 years.
- Goal 2: Reduce peak month ADD by 2% in 6 years.

Measures:

- Develop “Water Loss Control Action Plan”.
- Conduct an AWWA water audit.
- Identify and repair Leaks as soon as they are discovered.
- Educate all consumers about irrigation conservation and peak water demand twice a year.
- Conservation rate structure for all consumers.
- Consumption history shown on all water bills.
- Water conservation and landscape water use part of the water policy.
- Water conservation information on the MCPUD1 Website.

Optional goals: Demand Side

- Reduce average 3rd-tier residential water consumption per customer by 15 percent by 2024.
- Save five (interchangeable with any amount) gallons per family home per day by 2024.
- Reduce single-family residential water consumption by 20 gallons per day (gpd) per home by 2024.
- Reduce consumption by 20% for the highest 10% water users in the system.
- Reduce seasonal summer demand by 25 gallons per day per ERU within 6 years.

Optional Alternative Measures:

- Promote the EPA “WaterSense” program/products and fixtures to consumers (<https://www.epa.gov/watersense/join-watersense>).
- Rebate program for low flow/high efficiency plumbing fixtures.
- Showerhead or faucet replacement with high efficiency shower heads and faucet aerators.
- Customer leak detection education on PUD website (indoor leak repair).
- Educate members on how to identify and repair leaks in and around their homes.
- Promote Xeriscaping (low-water use landscaping) and drip irrigation.
- Construct Low-Water demonstration garden.
- Landscape water audit.
- Publish Usage Data to Encourage Efficiency. MCPUD1 will publish water usage data by service. to the system membership, so that peer pressure will result in efficiency.
- Make indoor and outdoor conservation kits available to consumers free of charge.
- Develop a classroom presentation to educate students on water conservation.
- Monitor customer accounts for high usage that may indicate leaks.
- Advanced Metering Infrastructure (AMI) system.

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