



Date Submitted: 5/11/2017

Water Use Efficiency Annual Performance Report - 2016

WS Name: GRAHAM HILL MUTUAL WATER CO INC Water System ID# : 28650 WS County: PIERCE

Report submitted by: *David Gaylord*

Meter Installation Information:

Estimate the percentage of metered connections: *100%*

If not fully metered - Current status of meter installation:

Production, Authorized Consumption, and Distribution System Leakage Information:

12-Month WUE Reporting Period: *01/01/2016* To *12/31/2016*

Incomplete or missing data for the year? *No*

If yes, explain:

Distribution System Leakage Summary:

Total Water Produced and Purchased (TP) – Annual Volume	28,989,945 gallons
Authorized Consumption (AC) – Annual Volume	26,274,345 gallons
Distribution System Leakage – Annual Volume TP – AC	2,715,600 gallons
Distribution System Leakage – Percent DSL = [(TP – AC) / TP] x 100	9.4 %
3-year annual average	4.3 %

Goal-Setting Information:

Date of Most Recent Public Forum: *09/27/2014* Has goal been changed since last performance report? *No*

Note: Customer goal must be re-established every 6 years through a public process

WUE Goals:

Customer Goal (Demand Side):

To maintain per capita daily use at 20% or better below the National average.

Describe Progress in Reaching Goals:

Customer (Demand Side) Goal Progress:

In addition to member education, GHMWCI has for years had a bar graph on the member billing that details usage for the past year by month. Graham Hill has for years utilized a 4 tier rate structure that charges for the commodity from the first gallon, and strongly discourages high water use. The rate structure is also broken into a "commodity" portion and a "base" rate to ensure the financial health of the company.

Since the implementation of these policies Graham Hill has seen a dramatic decrease in consumption per ERU. We are on the low side of consumption numbers across the nation. Historical annual average usage per ERU since implementation of tiered rate structure - - Assuming 2.91 family members

2009 205.64 GPD 70.7 G/person/day

2010 173.58 GPD 59.6 G/person/day

2011 177.21 GPD 60.9 G/person/day

2012 162.09 GPD 55.7 G/person/day

2013 160.92 GPD 55.3 G/person/day

2014 173.54 GPD 59.6 G/person/day

2015 178.12 GPD 61.2 G/person/day

2016 190.03 GPD 65.3 G/person/day

We are using 6.9 million gallons a year less than we were seven years ago.

Graham Hill Mutual Water Company Inc (GHMWCI) has less than 420 connections and therefore must evaluate or implement one supplementary water use efficiency measure in addition to the mandatory measures. The following sections describe the mandatory measures and the supplemental measures GHMWCI has in force.

Mandatory Measures:

1. Source and Service Metering and Meter Calibration

GHMWCI currently, and has for years, metered all customers and sources. Large meters are calibrated IAW AWWA and/or manufacturer standards. GHMWCI pursues an aggressive meter replacement program - 10% per year. GHMWCI is already in compliance with this requirement.

2. Leak Detection and Water Accounting

Graham Hill has maintained a low Distribution System Leakage (DSL) for over 2 decades. The three-year rolling average is 4.14 percent and is in compliance with this requirement.

Additional Information Regarding Supply and Demand Side WUE Efforts

Include any other information that describes how you and your customers use water efficiently:

3. Customer Education

GHMWCI sends out monthly water conservation tips to their customers in the monthly news letter and on the monthly billing. In addition, GHMWCI has sections of the company web site dedicated to customer education.

Supply side:

Flow demand is constantly monitored by SCADA and reviewed to identify leaks. As a member of RWA, leak detection services are readily available. GHMWCI has a leak finder reward program for our members.

System Leakage - historical

2009 5.52%

2010 6.10%

2011 6.70%

2012 5.73%

2013 3.42%

2014 2.25%

2015 0.81%

2016 9.37% 3 yr rolling average 4.14%

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