



Date Submitted: 6/15/2021

Water Use Efficiency Annual Performance Report - 2020

WS Name: KENT WATER DEPARTMENT

Water System ID# : 38150 WS County: KING

Report submitted by: *Tom Cunningham*

Meter Installation Information:

Estimate the percentage of metered connections: 100%

If not 100% metered – Did you submit a meter installation plan to DOH? No

Within your meter installation plan, what date did you commit to completing meter installation?

Current status of meter installation:

Production, Authorized Consumption, and Distribution System Leakage Information:

12-Month WUE Reporting Period 01/01/2020 To 12/31/2020

Incomplete or missing data for the year? No

If yes, explain:

Total Water Produced & Purchased (TP) – Annual volume gallons 2,719,695,000 gallons

Authorized Consumption (AC) – Annual Volume in gallons 2,588,595,051 gallons

Distribution System Leakage – Annual Volume TP – AC 131,099,949 gallons

Distribution System Leakage – DSL = $[(TP - AC) / TP] \times 100 \%$ 4.8 %

3-year annual average - % 5.1 % 2018, 2019, 2020

Goal-Setting Information:

Enter the date of most recent public forum to establish WUE goal: 11/05/2019

Has goal been changed since last performance report? No

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

Customer WUE Goal (Demand Side):

The City of Kent will allocate the resources necessary to support measures that will reduce water use by public agencies during the summer months of June through August by 0.5% annually, with an emphasis on outside water use. The City will also work with owners and managers of multi-family residential complexes to reduce water consumption by 1.0 percent per year. To meet these goals, the City will provide educational materials to public agencies regarding water conservation topics, including, but not limited to: water efficient irrigation systems, native landscaping and natural yard care, as well as offer rebates for water efficient fixtures. The City will also strive to maintain system-wide distribution leakage at less than 6.0 percent per year based on a three-year rolling average.

Customer (Demand Side) Goal Progress:

Water use for June through August 2020 decreased 55.4% compared to 2019. Outdoor water use saw a decrease of 51.0%. Since 2007, overall water use for the period has decreased by 63.9%. The number of total services has lowered by 8.21%. Irrigation accounts for government are up 7.6% over this same time.

We believe these large decreases are a result of COVID-19. Throughout 2020 schools and parks closed and many offices that remained open were staffed remotely.

In 2019, the City set a new goal for 2019-2029. This goal is to reduce multi-family residential (MFR) water consumption by 1% per year. Based on 70 MFR locations (all built before 1992) the annual water usage was up 5.37% in 2020 over 2019.

This increase was also affected by the pandemic as schools and businesses were closed and more people worked from home. It is unknown if this trend will continue. The City will continue its strategy of working with these MFR's on installing water efficient fixtures and monitor usage for this group.

The City met its goal of maintaining 6% or less lost water for the year, with a 5.24% distribution system leakage reported. The average lost water rate is 4.5% since 2007.

Additional Information Regarding Supply and Demand Side WUE Efforts

Describe Progress in Reaching Goals:

- Estimate how much water you saved.
- Report progress toward meeting goals within your established timeframe.
- Identify any WUE measures you are currently implementing.
- If you established a goal to maintain a historic level (such as maintaining daily consumption at 65 gallons per person per day for the next two years) you must explain why you are unable to reduce water use below that level.

The following questions will help DOH better understand water usage, water resources management and drought response. The data will be used to provide technical assistance, not for regulatory purposes.

All questions are voluntary

Month	Date of Measurement	Static Water Level (feet below measuring point)	Dynamic Water Level (feet below measuring point)
January	01/08/2020	10.2	42.3
February	02/05/2020	8.2	29.4
March	03/09/2020	8.3	31.0
April	04/10/2020	10.1	30.4
May	05/15/2020	10.8	30.5
June	06/08/2020	11.3	33.5
July	07/13/2020	11.7	27.6
August	08/11/2020	12.0	28.9
September	09/14/2020	11.7	32.0
October	10/07/2020	11.5	33.0
November	11/12/2020	11.6	33.0
December	12/07/2020	11.5	35.0

Water level data:

Please provide the following information (if known) to help us better utilize the water level data.

Well tag Id number: AFJ238

Well depth: 100.0

Water level accuracy (within 0.01 ft < 1 ft ~ 1 ft) < 0.1 ft

Completion type (e.g., cased open interval, cased open-ended, cased open-ended with perforations, etc...) cased open interval

Location coordinates (latitude, longitude) and accuracy of the coordinates (< 1ft, ~1ft, >1000ft) 47.35558, -122.1026 < 100 ft

Water level parameter name (e.g. depth below measuring point, depth below top of casing, depth below ground surface) depth below top of casing

Elevation of top of casing OR elevation of measuring point if different than top of casing (as specified in question 7) 3 ft

Monthly/Seasonal Water Usage:

What was your maximum daily water demand for the previous year (in gallons per day)? 11,813,000

Month	Volume of Water Produced in gallons
January	183,704,000
February	175,347,000
March	212,029,000
April	194,730,000
May	209,730,000
June	251,270,000
July	275,795,000
August	330,087,000
September	280,640,000
October	215,499,000
November	198,723,000
December	192,539,000

Water shortage response:

Did you activate any level of water shortage response plan the previous year?

- Yes No There was no need to

If you activated a water shortage response plan the previous year, what level did you activate? (Check all that apply)

- Advisory Conservation Voluntary Conservation
 Mandatory Conservation Rationing Other

What factors caused your water shortage the previous year?

- Drought Fire Landslides Earthquakes
 Flooding Water Supply Limitations Other

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