

# NTPUD 20 X 2020 Compliance Plan

Board Adopted: May 8, 2018

## Applicable District Mission, Vision, and Core Values:

The **mission** of the North Tahoe Public Utility District is to be effective environmental stewards through the provision of efficient, safe and accountable water and sewer service.

The **vision** for the North Tahoe Public Utility District is that we will provide the highest quality water and sewer systems, efficiently and economically managing for future demands.

**Core Value:** Protecting the Environment - be good stewards of what we have been given

## District's Conservation Philosophy

California's Water is a critical resource. Our conservation of which is consistent with State's sensitivity.

## State Requirement:

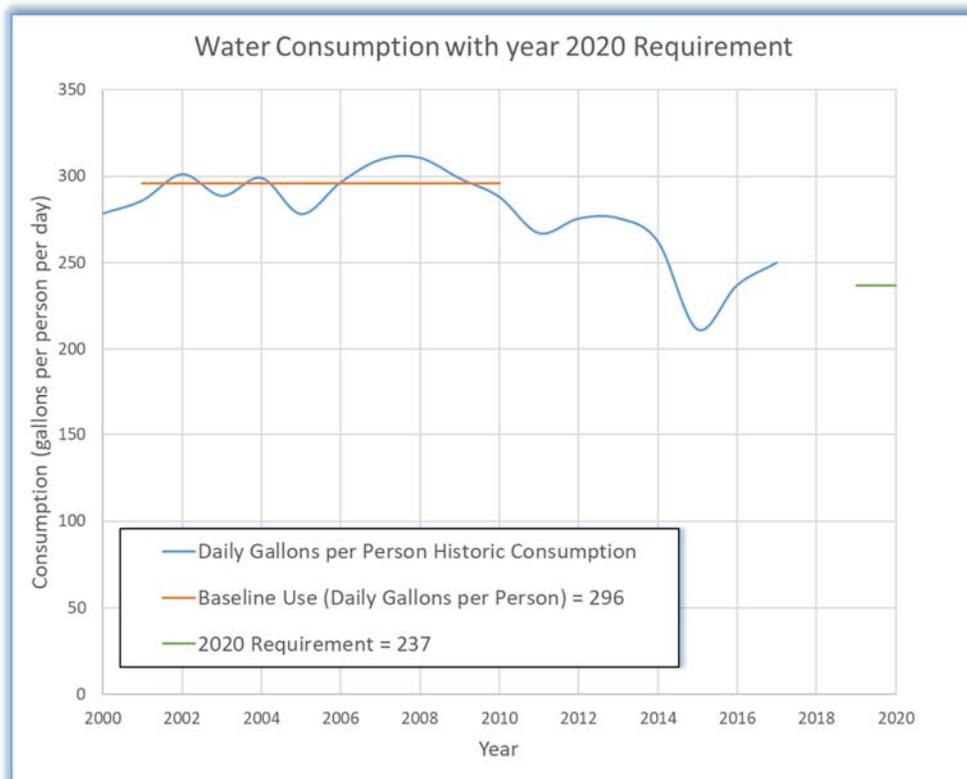
SB X7-7 requires agencies to establish water use targets, which if met would result in statewide savings of 20% by 2020. Retail water suppliers are required to comply with the water conservation requirements in SB X7-7 to be eligible for State water grants or loans. (CWC 10608.56).

## District Baseline, History, and Status:

Baseline: Established as the 10-year average (2001-2010) consumption (gal/person) per day (gal/day/person) = **296** gal/person/day (GPCD)

2020 requirement = **237** gal/person/day (GPCD)

See below for historic consumption (with baseline & 2020 requirement shown for reference):



Although the District is actively engaged in numerous Demand Management Measures (DMM) (see 2015 UWMP, chapter 9), as shown above, the District is not trending toward compliance. Without the benefit of statewide media attention on drought conditions, and calls for water reduction measures, the District adopts the follow multi-pronged approach to position the District for State Compliance:

## District Compliance Plan

Capturing information gleaned through thorough examination on the District's water system from:

- District Water Audit for Calendar year 2016 (SB 555): Validated 9/25/2017
- 2015 Urban Water Management Plan (UWMP): Board Adopted 6/13/2017

The following programs, targeting applicable use sectors, will yield water reductions as follows:

### Reducing percentage of unaccounted for water (i.e. losses):

*(District Departments: Engineering and Operations)*

The District's 2015 UWMP identified this water use sector as having the greatest potential in meeting 2020 goals. If the District is successful in lowering its unaccounted-for percentage to 20% of the overall production by 2020, this alone would place the District in compliance (assuming other use sectors remain the same). The following means and methods deployed aiming for this target are as follows:

#### Real Losses: Leak Detection Device Placement via G.I.S.:

The District utilizes two types of leak detection devices: AMR (Automatic Meter Reading) and MLOG.

1. AMR (Automatic Meter Reading): Part of the customer's meter reading technology which monitors the main through detection of sound waves produced by a leak. AMRs will collect data 125 – 150 feet each side of the device.
2. MLOG sensors: Function very much like AMR's, but are independent, not attached to the meter. They are attached to the water main and have a stronger detection range of 250 +/- feet each side of the device.

With approximately 54 miles of mainline, to cover 100% of the District would require expenses and personnel time beyond the rate of return. As such, GIS is employed to populate MLOG & AMR locations and use the "trace" feature to identify gaps and strategically place a manageable number of devices. Optimal amounts and locations are identified considering: System age, Leak work-order history, and Zone meter reads.

#### Real Losses: Leak Detection Through Correlating

The District utilizes leak detection equipment by spot checking suspect water mains which are not fitted with the above noted leak detection devices. Personnel will correlate sections of a main from valve to valve via sub-surface sounds waves which provides an indication and approximate location of a leak. Once discovered, a ground microphone is utilized to pin point the location for repair.

#### Real Losses: Elimination of Bleeders

The District has historically utilized the approach of "bleeding" water off at customer meters (District's side) for service and/or main line freeze protection. This approach is a "quick fix", however is water wasting. The District is in the process of eliminating the use of "bleeders", which requires reconstructing the infrastructure at depth. The District is correcting these inferior conditions as time allows relative to other District priorities.

### Apparent Losses: Unauthorized Consumption:

Unauthorized consumption is the result of un-metered fire hydrant use (w/o permission), and utilization of District water without flowing through an active customer's consumption meter. The District continues a focused effort in identifying (and correcting) this non-compliant scenario.

### Apparent Losses: Meter Inaccuracies:

Although from a water use reporting scenario, a meter registering less water would bring the District closer to compliance, from purely an accuracy perspective it is ideal to work with real numbers. As such, the District is engaged in both a meter replacement and a meter calibration program.

### Identify End User Losses (beyond meter):

*(District Department: Operations)*

Although losses on the customer's side goes through the District's meter (and the District is compensated), the District proactively monitor's the customers side to reduce consumption in this use sector. Through utilization of I-TRON AMR built in features, the District detects leaks or running fixtures on the customer's side. Additionally, the District compares monthly meter reads with prior months to identify any out of the ordinary conditions. If any property is identified through these reviews, the property owner is immediately notified.

### Conservation Pricing:

*(District Department: General Manager)*

State Water Board is on record quoting "Water pricing can reduce demand by providing an economic incentive for consumers to conserve water". However, the city of San Juan Capistrano court decision sighting Proposition 218 (requiring providers to justify prices based on the cost of delivering service at each tier, verse arbitrarily setter prices to encourage conservation), puts this DMM as a legally sensitive issue. The District is currently in preliminary stages of moving forward with a Cost of Service study. Assuming this study moves forward, the District be reviewing this DMM for applicability.

### Customer Education and Outreach:

*(District Department: Public Information Officer)*

Provide water conservation education and tools to encourage water conservation to the District's 3800 water customers in both the residential and irrigation sectors to assist the District in meeting the 20% by 2020 guidelines. The following is a sample of tools and opportunities for outreach.

- Direct mail (in bills), social media, and E-News outreach to District Customers.
- Free Water Conservation Supplies
- Bumper stickers, vehicle wraps, and banners focused within District boundaries.
- Identify and provide information to hotels/motels, restaurants, landscape maintenance companies and other that provide services where conservation can result in savings.
- Direct outreach and education to excessive use consumers identified through review of meter reads and direct outreach for customers who are excess in their use of water (i.e. "water hogs")
- Landscape seminar
- Plan for outreach to Spanish speaking community
- Leveraging current contracts with local media

### Summary:

If the District is dedicated to all the above water reduction approaches, the District will be in the best position possible to meet the State required goals.