

Agenda Item

DATE: January 31, 2018
TO: Templeton Community Services District Board of Directors
FROM: Bettina Mayer, PE District Engineer
SUBJECT: Water Supply Buffer Update

RECOMMENDED ACTION:

None. Discussion only.

FISCAL IMPACT:

None.

DISCUSSION:

A Water Supply Buffer Policy has been established to ensure District water supply reliability and redundancy for current and future District residents and customers. The Policy provides a reliable process for evaluating water availability within the District's water portfolio. The policy reserves a percentage of District's water supply to provide a buffer against potential problems with existing water supply sources that may include:

- Well failure
- Water contamination
- Nacimiento line failure
- Water quality issues
- Increase in number of private wells
- Adjudication
- Legislative Changes

The water supply buffer resolution was adopted by the Board on November 12, 2016 (Resolution 21-2016). The main elements of the Water Supply Buffer policy are:

- The District shall maintain a Water Supply Buffer of not less than 20% of the available water portfolio.
- The District shall not release water units unless the water supply buffer is met.
- The District shall not release water units until available supply reliability is proven.
- The District shall reevaluate production and proven available supply at the beginning of each calendar year.

In 2017, 58 groundwater meters were set. Of these, 9 meters were set to connect outstanding water units to avoid the water capacity fee. These are expected to have zero water use until a project is built. We will continue to track these units separately in order to account for their reserved water supply and we expect this number to grow significantly this year.

The number of outstanding water units provided last year did not include 50 water units issued from the Nacimiento water allocation that were sold through a five year payment agreement. An additional 12 water units were determined to be outstanding based on records review which include paper receipts. With the addition of these units, the total number of outstanding groundwater units as of December 31, 2018 is 771 units. This number will continue to be updated annually.

The annual update presented today includes the production and consumption values from 2017. In 2017 the conservation restrictions were removed although water waste prohibitions became permanent. Water use increased 12% from 2016 consumption. However, the calculation for the projected average has gained a low usage year in 2017, dropping the projected average water production 28 AFY, from 1498 AFY to 1470 AFY.

With this projection the 20% buffer will be achieved once both the US-CUP Wastewater retrieval and the full Nacimiento allocation is available to be retrieved. While it is anticipated that the East Side Force Main (ESFM) component of the US-CUP project will be under construction this year, the additional water supply will not be available until a new location for discharging the Nacimiento water is constructed. Should the low usage trend continue, the projected average will continue to decrease and may provide the opportunity to release new water units if the available supply proves to be reliable. The projected average will continue to be re-calculated annually.

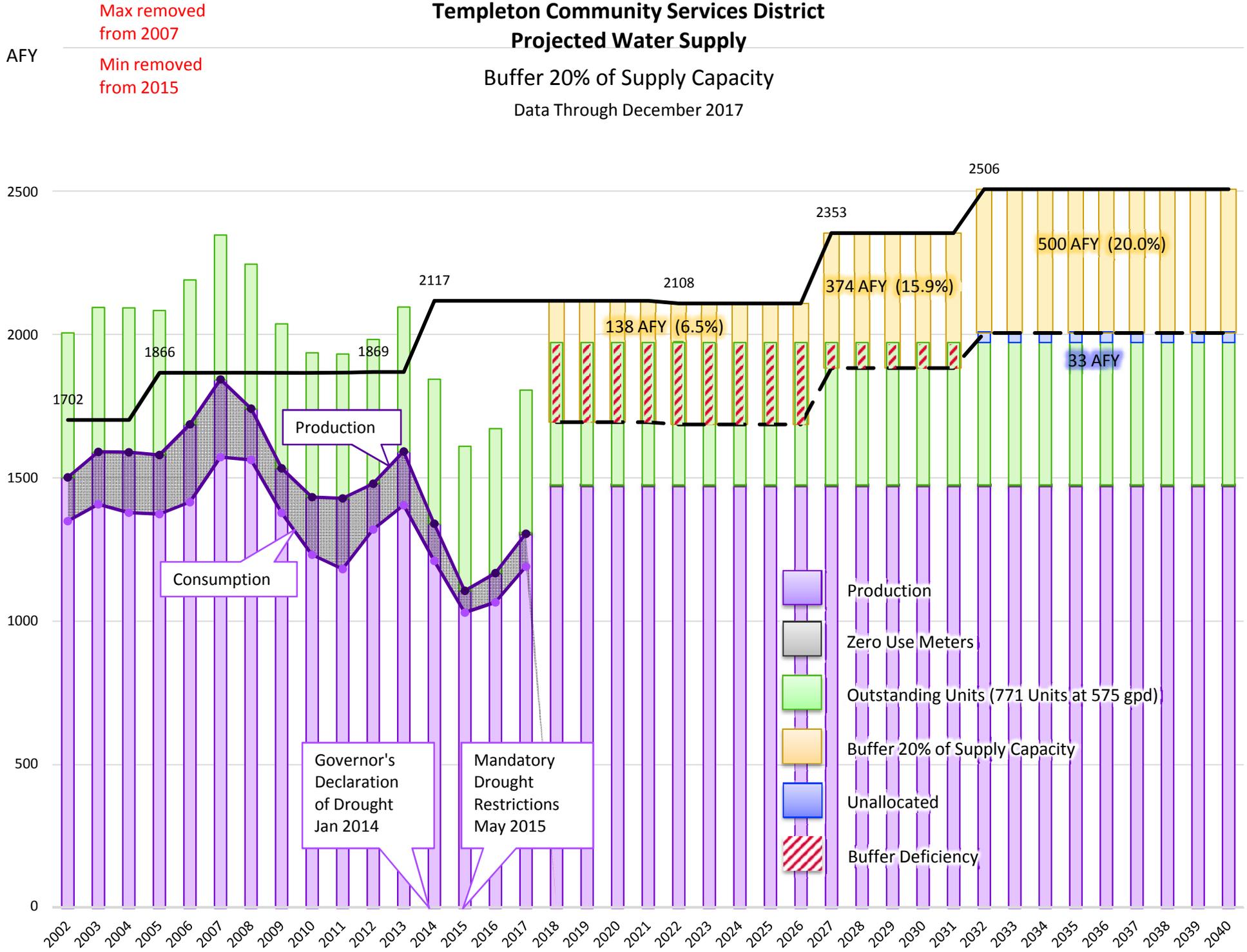
Attachments

1. Water Buffer Chart updated through December 2017
2. Water Buffer Policy

Templeton Community Services District Projected Water Supply

Buffer 20% of Supply Capacity

Data Through December 2017



District Water Supply Buffer Policy

Resolution 21-2016 adopted November 1, 2016

Purpose

A Water Supply Buffer Policy is needed to ensure District water supply reliability and redundancy. The Policy should provide a reliable process for evaluating water availability within the District's water portfolio. Potential problems with existing water sources within the portfolio may include:

- Well failure
- Water contamination
- Nacimiento line failure
- Water quality issues
- Increased private allotment of Templeton Sub-Unit
- Adjudication

Water Supply Portfolio

The District's water supply portfolio is made up of several various sources. The supply capacity is based on allocations from the State Water Permits, State Water License, Riparian Agency Agreements, groundwater from the Atascadero Basin, wastewater retrieval and Nacimiento water. The initial Wastewater retrieval water supply of 164 AFY was added in 2005. There is a projected addition of East Side Wastewater Retrieval (US-CUP) of 236 AFY in 2022. The initial Nacimiento retrieval water supply of 245 AFY was added in 2014. There is a projected addition of increased Nacimiento allocation of 153 AFY in 2032. The actual dates of the new supplies coming on line are not fixed.

Data

The water production and consumption information (shown as points on the attached chart) comes from the well reports from Utilities Manager Jay Short. The projected water production was obtained using the average of the last 12 years discounting the highest and lowest years. The resulting average is very close to the 2013 production, which is used as the conservations effort baseline measuring. The 2013 District Water Masterplan used an average of the highest and lowest usage years to project supply demand.

The outstanding 784 water units were calculated at a fixed rate of 575 gpd per unit. This is a conservative calculation, based on the assumption that new connections will be utilized at full capacity.

Current use trends have been artificially depressed due to drought restrictions. District water use is also lower over the last two years (2014 & 2015) due to deferred maintenance on water lines such as line flushing and hydrant flushing. District water use is approximately the difference between Production and Consumption.

The buffer was calculated as 25% of the supply capacity. A survey of nearby or equivalent jurisdictions shows a similar buffer scope.

Recommendation

The production average is based on the last 12 years, subtracting the highest and lowest years for a total of 10 points. It is recommended that the District revise the average water production on an annual basis using the most recent 12 years. Each January the District will update the water demand forecast and proven available water supply to determine whether it is appropriate to release water units

Annual Analysis

- Update number of outstanding units
- Recalculate average production/consumption
- Update water production forecast
- Evaluate forecast and determine potential water unit allocation

Conceptual Supply Buffer Policy

The District shall maintain a Water Supply Buffer of not less than 25% of the available water portfolio.

The District shall not release water units unless the water supply buffer is met.

The District shall not release water units until available supply reliability is proven.

The District shall reevaluate production and available supply at the beginning of each calendar year.