



DATE: September 12, 2016

TO: Council Sustainability Committee

FROM: Director of Utilities and Environmental Services

SUBJECT

Update on City-Wide Water Conservation and Revised Emergency Regulations for Statewide Urban Water Conservation

RECOMMENDATION

That the Committee reviews and comments on this report.

SUMMARY

This report provides information on the City's water conservation results for FY 2016 and compliance with the State's Emergency Regulations for Statewide Urban Water Conservation. The report also discusses the revised emergency regulations and their applicability to Hayward.

As a brief overview, between June 2015 and August 2016, Hayward achieved a water use reduction of 24%, as compared to the same months in 2013, significantly exceeding the 8% target set by the State Water Resources Control Board (also known as the State Water Board). In May 2016, the State Water Board adopted a Revised Water Conservation Regulation that replaces mandated numerical reductions with conservation standards based on local water supplies. Hayward's water supplier, the San Francisco Public Utilities Commission (SFPUC), has verified that no State mandated reductions will be needed to comply with the Revised Regulation at this time. However, SFPUC has requested that agencies achieve a 10% voluntary reduction over 2013 consumption in order to protect available supplies in the event that the coming water year is dry.

BACKGROUND

The past four years have seen exceptionally dry conditions throughout the State, prompting the State Water Board to take various actions, as described below, to reduce urban water use during the drought:

- January 2014 – Governor Brown called for 20% reduction in state-wide water use. No specific requirements were mandated.

- July 2014 – The State Water Board adopted Emergency Regulations for Statewide Urban Water Conservation, which prohibited wasteful outdoor water use and required all urban water suppliers, including Hayward, to implement their Water Shortage Contingency Plans (WSCP).
- March 2015 – The State Water Board approved an extension of the Emergency Regulations, along with additional requirements, including more specific irrigation, food service and hospitality restrictions.
- April 2015 – Governor Brown issued an Executive Order that required mandatory conservation of potable urban water and directed the State Water Board to impose restrictions that would achieve a 25% reduction, compared to the amount used in 2013.
- May 2015 – The State Water Board adopted a methodology that assigned urban water suppliers a conservation requirement between 8% and 36%, based on residential per-capita use. Hayward was placed in the lowest assigned tier, with an 8% reduction requirement.
- November 2015 – Governor Brown issued an Executive Order to extend the existing water use restriction through October 31, 2016.
- February 2016 – The State Water Board adopted revised Emergency Regulations, which basically maintained and extended the May 2015 requirements but provided urban water suppliers with an opportunity to modify conservation requirements.
- May 2016 – The State Water Board adopted a water conservation approach that replaces the percentage reduction-based standard with an approach that ensures at least a three-year supply of water under drought conditions. The impacts of this approach on Hayward are discussed in the next section.

Hayward has complied with all State mandates related to water conservation, including enhanced monthly reporting requirements. Beginning in June 2015, the total monthly water production (in Hayward's case, total monthly water purchased from San Francisco Public Utilities Commission) was reported to the State. To assess compliance with the 8% cutback requirement, conservation savings were added together from one month to the next and compared to the total amount of water used during the same months in 2013.

DISCUSSION

Water Conservation Results

Between June 2015 and August 2016, Hayward achieved a cumulative water use reduction of 24%, as compared to the same months in 2013, significantly exceeding the 8% target set by the State (see Attachment I). One of the most telling measures of water use efficiency is the average gallons of residential water used per capita per day. During FY 2016, average *residential* water use was forty-six gallons per capita per day, compared to fifty-one gallons per capita per day in FY 2015.

Hayward customers have consistently been excellent stewards of water resources and have continued to do their part during the drought.

This commitment is in part demonstrated by continued interest in the City's water conservation programs. As an example, the total amount of turf area converted into water efficient landscaping through the City's Lawn Replacement Rebate Program increased by nearly 17%, from 126,000 square feet in FY 2015 to 147,000 square feet in FY 2016. A new program, introduced in June 2015, provides rebates of up to \$100 for the purchase of rain barrels to capture and store rainwater for later use as irrigation water. This program generated significant interest in Hayward, with close to 150 rebates issued in its first year. Other ongoing programs, such as rebates for high efficiency toilets and clothes washing machines, continue to be popular with customers.

Revised Water Conservation Emergency Regulation

Given the increased amount of rain and snow received in parts of California during the winter of 2016, concerns about water supply reliability have eased. The State Water Board is transitioning from mandatory state-wide conservation standards to standards based on supply reliability considerations at the local level, while recognizing that conservation is still needed in case this past winter was a short reprieve in a longer drought.

On May 18, the State Water Board adopted a statewide water conservation approach that replaced the prior percentage reduction-based standard with a localized "stress test" approach that mandates urban water suppliers to ensure at least a three-year supply of water to their customers under drought conditions. These less restrictive measures were adopted in recognition that, at this point, local agencies are better positioned to assess, plan for, and accommodate drought impacts on their water supplies. The regulations require retail and wholesale water suppliers to demonstrate that the agency is able to meet the average annual 2013 and 2014 water demand over the next three years, assuming that water supply conditions mirror the 2012-13, 2013-14 and 2014-15 water years. If conservation is needed to meet the base year demand, the agency must indicate the percentage reduction required.

The City of Hayward obtains its water supply from the San Francisco Public Utilities Commission (SFPUC). Hayward purchased an annual average of 5,407 million gallons in 2013 and 2014, based on average demand in 2013 of 5,714 million gallons, and 5,100 million gallons in 2014. The total annual average purchases made by all agencies from SFPUC during those two years, including wholesale and San Francisco's retail customers, was 78,669 million gallons, which is the base year demand on which SFPUC conducted its assessment of available supplies. The SFPUC's analysis, including total system storage and projected annual system inflows from the Tuolumne River and local reservoirs, indicates that sufficient water supply would be available to meet this base year demand over the next three years, assuming a repeat of 2013 – 2015 hydrological conditions. Based on this analysis, no percentage reductions in use by SFPUC customers will be mandated by the State Water Board.

Although mandatory reductions will not be required by the State Water Board, the SFPUC analysis assumes that its customers, as a whole, will limit consumption to the average of 2013 and 2014 usage. Using 2013 as a base, this would mean that Hayward would need to use 5.4% less water

than in 2013. Furthermore, SFPUC is requesting that customers voluntarily reduce usage by 10% over 2013 use, as a precautionary measure and because the Regional Water System storage will not completely fill at the end of the snowmelt period this year. Also, if the next water year is dry, ample stored supplies will be needed to protect against additional water use reductions. Based on Hayward's water consumption in fiscal year 2016 and the efforts that Hayward customers continue to make to conserve water, staff is confident that the City will achieve the revised water use targets.

ECONOMIC IMPACT

Although not yet significant, the costs of implementing actions to meet the State Water Board's directive and achieve water use reductions will be included as future water rates are set. Also, while water conservation, i.e., less usage, would typically result in a reduction in water bills, the water rates may have to increase to pay for fixed system costs.

FISCAL IMPACT

Water conservation program management staffing is provided by the Utilities & Environmental Services Department and is funded entirely in the Water Operating Fund. There are no General Fund impacts. Staff is generally using readily available and low cost methods for outreach. Some staff time is needed to continue to follow up on reports of excessive use.

SUSTAINABILITY FEATURES

Water: Efficiency and conservation. Although there was an increased amount of precipitation during the winter of 2016, water conservation and water use efficiency remain critical to ensuring adequate supplies. Ongoing and future conservation programs are expected to result in reduced demand.

PUBLIC CONTACT

A strategic communications plan was developed in cooperation with the City's previous Communications & Media Relations Officer to raise awareness of the drought conditions, acknowledge the water savings that Hayward customers have achieved so far, and promote water conservation and best practices. A "Drought Watch" website has been developed to provide updated and relevant information about drought conditions locally and throughout the State and can be accessed at <http://www.hayward-ca.gov/droughtwatch/>. Additional communication will be delivered as necessary to maintain awareness of the drought and achieve water use reduction targets.

NEXT STEPS

Staff will continue to monitor the water supply situation and updates from the State Water Board regarding conservation, and provide periodic updates to the Committee. Outreach and enforcement efforts will continue to be implemented as needed to help the City meet conservation goals.

Prepared by: Marilyn Mosher, Senior Management Analyst

Recommended by: Alex Ameri, Director of Utilities and Environmental Services

Approved by:

A handwritten signature in black ink, appearing to read 'K. McAdoo', written in a cursive style.

Kelly McAdoo, City Manager