



DATE: May 8, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT Update on Water Supply Availability and Water Conservation Regulations

RECOMMENDATION

That the Committee reviews this report and provides direction on (1) rescinding the City's Stage I Water Shortage declaration and implementation of Stage I Water Shortage Contingency Plan actions and (2) revising the City's Nonessential Water Use Prohibition Ordinance to permanently prohibit wasteful practices consistent with State water conservation regulations.

SUMMARY

The winter of 2017 has been one of the wettest on record, following five years of drought conditions. The Governor formally declared an end to the drought emergency on April 7, 2017 in most of California, while maintaining water reporting requirements and prohibitions on wasteful practices, such as watering during or right after rainfall. The San Francisco Public Utilities Commission (SFPUC), the City's wholesale water supplier, has announced that available water has exceeded what is needed to ensure the entire water system will fill by July 1, 2017 and that SFPUC will be able to meet 100% of its customers' needs this year.

Concurrent with the Governor's declaration, the State released a conservation framework, titled "Making Water Conservation a California Way of Life," to establish long term water conservation practices and more effective drought planning and resiliency. Among its provisions, this framework will change the way future water use reduction targets are calculated. In view of the changing water supply outlook and recent developments at the State level, staff has prepared this report to update the Committee on the current water supply and demand conditions for the City and provide an overview of the State's efforts to implement a new long-term conservation framework for urban water agencies.

BACKGROUND

The recent drought included the driest four-year statewide precipitation, from 2012 to 2015, and some of the warmest temperatures. These conditions prompted the State and the City to take various actions, as described below, to reduce urban water use:

- January 2014 – Governor Brown called for a 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).
- September 2014 – The City amended its 2010 Urban Water Management Plan (UWMP) to incorporate the State’s mandatory outdoor water use prohibitions in the WSCP Stage I actions and declared a Stage I Water Shortage. Stage I actions prohibit wasteful outdoor water uses such as overwatering landscapes, washing outdoor surfaces with potable water, and using hoses without shut-off nozzles.
- March 2015 – The State Water Board approved an extension of the Emergency Water Conservation Regulations, along with additional requirements, including more specific irrigation, food service and hospitality water use restrictions.
- April 2015 – The City amended its 2010 UWMP to further revise the City’s WSCP to implement the State’s additional water use restrictions. In addition, in late April, 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 existing water use restrictions through October 31, 2016.

Increased amounts of rain and snow received in parts of California during the winter of 2016 somewhat eased concerns about water supply reliability and prompted the State Water Board to transition from mandatory state-wide conservation standards to standards based on supply reliability consideration at the local level, as described below:

- 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 Governor issued an Executive Order requiring State agencies to develop new water use efficiency targets as part of a long-term conservation framework for urban water agencies. In addition, the Executive Order required the State Water Board to adjust Emergency Regulations to recognize the differing water

supply conditions across the state. In response, the State Water Board adopted a water conservation approach that replaced the percentage reduction-based standard with an approach that ensures at least a three-year supply of water under drought conditions. Based on SFPUC's estimate of water supply availability for 2016, no mandated reductions were required for Hayward to comply with State regulations. However, SFPUC continued to request that agencies achieve a 10% voluntary reduction to protect against future dry year conditions.

Throughout the recent drought, Hayward has consistently complied with all State mandates related to water conservation, including enhanced monthly reporting requirements. The community responded to calls for water use reductions, significantly exceeding the 8% reduction requirement. Between June 2015 and June 2016, Hayward achieved a water use reduction of 23%, as compared to the same period in 2013 with substantial water use reductions occurring in every customer classification. The City's Stage I Water Shortage declaration has remained in effect pending State and SFPUC actions related to water supply conditions for 2017, which were announced in April 2017.

DISCUSSION

Precipitation during the winter of 2017 has been far above normal, with numerous and sustained winter storms bringing significant quantities of snow to the Sierra and rainfall throughout the State. The change in water conditions has affected supply availability and state-wide drought restrictions.

Water Supply Availability

Hayward purchases its water supply from SFPUC. On April 4, 2017 SFPUC issued its final water supply availability estimate for this year, confirming that the Hetch Hetchy watershed experienced exceptionally wet conditions this past winter. SFPUC indicated that the SFPUC water system will fill this year and that it will have sufficient supply to meet 100% of its customers' needs this year and that voluntary 10% reductions are no longer required. Nevertheless, SFPUC reminded customers that their continued commitment to water conservation supports the ability to carry over water in reservoirs from one year to the next and results in improved water supply reliability.

Water Use in Hayward

As noted in the Background section, Hayward responded to the drought conditions and achieved significant water use reductions, far exceeding the 8% target set by the State through June 2016. One of the most telling measures of water use efficiency is the average gallons of residential water use per capita per day. During Fiscal Year 2016, average *residential* water use was 46 gallons per capita per day (gpcd), which was below the minimum quantity of 50 gpcd that was used by the State to calculate minimum health and safety needs during the drought. Hayward customers have consistently been excellent stewards of water resources and continued to do their part during the drought.

For 2017, Hayward's cumulative water use savings year-to-date is 21%, compared to 2013. Hayward customers have continued to demonstrate their interest in water use efficiency through participation in water conservation programs and reports of water waste activities.

Ending of Statewide Drought Emergency

Governor Brown formally ended the drought state of emergency on April 7, 2017 in most of California, citing unprecedented water conservation and plentiful winter rain and snow. Only a few Central Valley counties, Fresno, Kings, Tulare, and Tuolumne, remain under a state of emergency due to diminished groundwater supplies. The Governor's Executive Order ending the drought maintains urban water use monthly reporting requirements and prohibitions on wasteful practices such as watering during or after rainfall and hosing off sidewalks and driveways. In addition, the Governor's actions taken in May 2016 to require State agencies to develop a new long-term conservation framework for "Making Water Conservation a California Way of Life in California" remains in effect and is further described in the following section.

State Water Conservation Framework: Making Water Conservation a California Way of Life

Concurrent with the Governor's termination of the emergency drought declaration, State agencies released a long-term framework for future water conservation regulations, titled "Making Water Conservation a California Way of Life". The final plan can be accessed at: http://www.water.ca.gov/wateruseefficiency/conservation/docs/20170407_EO_B-37-16_Final_Report.pdf

The new long-term conservation framework responds to Governor Brown's May 2016 Executive Order to establish long-term water conservation measures and improved planning for more frequent and severe droughts. Largely because of the drought, urban water agencies have achieved significant reductions in water use ahead of schedule. The new conservation framework seeks to build on this momentum and make the reductions permanent through strengthened water use efficiency standards and removing negative incentives for using more water than needed during non-drought conditions. While staff is still evaluating the State's conservation plan and its implications for Hayward, this report offers an opportunity to brief the Committee on key aspects of the new framework.

The following summarizes key provisions within the new conservation framework:

- **New Water Use Targets:** Beginning in 2010, water suppliers were required to establish interim and final water use targets, based on a selected method. Known as "20% by 2020," these requirements were intended to reduce state-wide consumption by certain percentages at the local level to achieve a 20% reduction state-wide. Rather than focusing primarily on reductions in gross water use, as was the case with "20% by 2020," the new conservation framework requires State agencies to develop new water use efficiency targets using a method that looks at indoor residential, outdoor residential, and non-residential use separately, and establishes efficiency standards for

each category. The new water use targets will be customized to fit the unique conditions of each water supplier.

- Permanent monthly reporting: Mandatory monthly reporting that was initiated as part of the emergency regulations will be required on a permanent basis.
- Elimination of Water Waste: The emergency regulations prohibited certain water wasting activities, such as hosing down sidewalks and irrigating landscapes after rain. Some of these activities will be prohibited on a permanent basis.
- Minimizing Water Loss: Water suppliers will need to quantify and minimize water system leaks and prioritize capital improvements to reduce water waste within the distribution system.
- Innovative Water Conservation Technologies: The framework calls for the continued development and evaluation of technologies for water loss detection, as well as water saving devices and technologies.
- Drought Risk Assessments and Water Shortage Contingency Plans: Water suppliers are currently required to provide three-year drought assessments and water shortage contingency plans every five years, as part of an agency's Urban Water Management Plan. Under the provisions of the framework, agencies would submit water budget forecasts on an annual basis to the State, and would prepare five-year drought assessments every five years.

Some portions of the framework, including establishing a process for new water use targets and water shortage contingency plan changes, will require legislative action, following a public process for stakeholders. Other provisions can be implemented within the State's existing authority, for example, permanent prohibitions on wasteful activities, water loss management, and permanent reporting. Staff anticipates that several of the provisions may require substantial effort to implement for Hayward, particularly changes to the method by which water use targets are established. The State currently anticipates offering technical assistance. The Bay Area Water Supply and Conservation Agency (BAWSCA), of which Hayward is a member agency, also plans to provide data collection and other support on a regional basis for its member agencies. Staff will continue to monitor and participate in the development of proposed regulations and legislation needed to implement the new conservation framework and evaluate implications for Hayward.

Recommended Hayward Water Shortage Actions

Staff is recommending two actions to address the recent changes to the water supply situation:

- Rescinding the Stage I Water Shortage declaration - With the ending of the statewide drought emergency and confirmation from SFPUC that sufficient water supplies are

available to meet 100% of demand, staff recommends that the City Council formally rescind the Stage I Water Shortage declaration and implementation of Stage I Water Shortage Contingency Plan actions.

- Revisions to the Nonessential Water Use Ordinance - In connection with the repeal of the Stage I Water Shortage declaration, staff would also recommend modifications to the City's Nonessential Water Use Ordinance to make permanent the prohibitions on water wasting activities, consistent with State water conservation regulations. While most of the activities are already prohibited in the City's ordinance, there are a few additional prohibitions, notably landscape irrigation during or within 48 hours of precipitation and irrigating ornamental turf on public street medians, that must be added.

Also, while not a specific requirement at this time, many agencies have opted to also make permanent water use restrictions requiring that restaurants only serve water to customers upon request and that hotels offer patrons the option of not having towels and linens washed daily. Staff is requesting direction from the Committee on whether to include these water use restrictions related to restaurants and hotels in the Nonessential Water Use Ordinance.

ECONOMIC IMPACT

The costs of implementing actions to meet the State Water Board's conservation regulations and achieve water use reductions are included as future water rates are set. 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 costs.

FISCAL IMPACT

Water conservation program management is provided by the Utilities & Environmental Services Department and is funded entirely in the Water Operating Fund. Some staff time will be needed to evaluate the State's new conservation framework and implementation strategies. In addition, BAWSCA, to which the City pays fees on an annual basis, proposes to include budget in their FY 2017/2018 work to support member agencies with implementing the new conservation framework. All water conservation program costs are funded in the Water Operating Fund. There are no General Fund impacts.

SUSTAINABILITY FEATURES

Although precipitation greatly increased in the winter of 2017, water conservation and water use efficiency remain critical to ensuring adequate water supply reliability during water shortages. Staff efforts to implement the new conservation framework and implement future conservation programs are expected to lock in a portion of the water savings achieved during the recent drought.

Some technology improvements, such as more efficient showerheads, faucet aerators and high efficiency washing machines and dishwashers, can also reduce the use of hot water, and thus result in conservation of energy resources.

PUBLIC CONTACT

A strategic communications plan was in place throughout the drought to raise awareness and educate the community about the importance of conservation and the programs available to assist customers in reducing their water use. A key component of the communications plan has been the City's "Drought Watch" website, developed to provide relevant information about drought conditions locally and throughout the State. The website can be accessed at <http://www.hayward-ca.gov/droughtwatch/>. If the Council acts to rescind the Stage I Water Shortage, staff will update the website to include information on how our customers contributed to water savings during the drought, acknowledge their efforts and the City's appreciation, and raise awareness of and educate the community on which wasteful water use practices are permanently prohibited by the City.

NEXT STEPS

If the Committee concurs, staff will take the necessary actions to bring to the City Council for consideration a resolution to rescind the Stage I Water Shortage declaration, along with revisions needed to the Nonessential Water Use Prohibition Ordinance to permanently prohibit wasteful water practices consistent with State water conservation regulations. In addition, staff will continue to monitor and participate in the State's efforts to develop and implement the new long-term conservation framework and will update the Committee periodically.

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