



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: May 24, 2016

TO: Mayor and Councilmembers

FROM: Water Resources Division, Public Works Department

SUBJECT: Stage Three Drought Update

RECOMMENDATION:

That Council receive an update on the status of the current drought, drought-response capital projects, and continuing conservation efforts.

DISCUSSION:

Council declared a Stage One, and subsequently a Stage Two Drought Condition on February 11, 2014 and May 20, 2014, respectively, as a result of unprecedented drought conditions. On May 5, 2015, in response to the driest consecutive four-year period on record, Council declared a Stage Three Drought Emergency, increasing the community's water conservation target to 25 percent, and adopting additional water use regulations by Resolution on May 12, 2015. This was followed by a fifth consecutive year of minimal rainfall with virtually no runoff to local reservoirs, which resulted in Council increasing the community's drought target to 35 percent on April 26, 2016.

This drought update will cover the following items:

- Water Supply Outlook/Weather Forecast
- Drought Response Capital Projects
- Conservation Efforts

Water Supply Outlook

Rainfall for the last five years has averaged less than half of the long term average. In accordance with the City's Long Term Water Supply Plan, depleted surface water supplies have been replaced with increased groundwater production and purchases of supplemental water. This strategy has been successful in securing supplies sufficient to meet demand through 2016, assuming the community's continued water conservation of 35 percent or more.

Staff has successfully purchased supplemental water supplies, and state water deliveries have been reinstated to 60 percent of allotments. While water is available to the City, there are conveyance capacity constraints that limit the amount of water that can be delivered in a particular month. During peak water demand times in the summer, the City uses available stored water in Cachuma to augment deliveries. However, there is a concern over how much storage buffer will remain next fall after the peak demand months and evaporative losses that are expected to occur. In order to increase the storage buffer, staff is currently maximizing delivery of imported water to the lake, including use of unused capacity by other agencies, when possible. In addition, the Central Coast Water Authority is evaluating options to increase the operational capacity of the pipeline so that more water can be delivered to the lake in peak summer months.

Should there be conveyance limitations that cause a short-term additional deficit in supply, the City would consider use of Gibraltar water and/or potential further short-term water use restrictions, such as prohibiting outdoor watering for a short period of time, if necessary. Our community's ability to sustain the 35 percent conservation goal will be critical to the City's ability to meet water demands.

Given the status of water supplies into the fifth year of a historic drought, staff is concerned about the need to use potable water to meet the demands in the recycled water system. The upgraded recycled water plant was designed to produce 2.5 million gallons per day (MGD). It is currently producing approximately 0.75 MGD at a sustainable rate, and can produce up to 1 MGD but this rate cannot be sustained. This is insufficient for peak summer demands. The City continues to work to increase production levels which would need to reach approximately 1.5 MGD to meet peak summer demands. When demands exceed plant production, the City will use non-potable groundwater from Valle Verde Well (producing .2 MGD on average) to supplement the supply to the system. This amount, however, is not enough to meet demands. Staff is considering a request that recycled water customers voluntarily cut back on water use by up to 35 percent in the peak-demand months of July, August, and September, in order to avoid use of potable water within the recycled water system and help preserve a storage buffer at Cachuma. Recycled water customers were successful at reaching 35% conservation last year. There are approximately 80 customers on the recycled water system, and City staff works closely with the customers on timing of water use in order to optimize recycled system operations. Staff will return to Council in June for consideration of a request for a reduction in recycled water demands during the peak summer months.

National Oceanic and Atmospheric Administration weather forecasts a weakening El Niño condition through June 2016, with an increasing chance of a La Niña condition developing during the second half of the year. La Niña events are typically associated with drier, colder weather for Southern California. Based on historical rain information for Santa Barbara, a La Niña event could actually be a slight improvement over what we have seen over the last five years. Given the unpredictable nature of El Niño and La Niña events, and the unprecedented nature of the current drought situation, the City is planning for continued drought conditions.

Drought Response Capital Projects

Work continues to progress on schedule for the reactivation of the City's Desalination Plant. Offsite work on the treatment units is on schedule, with delivery to the site anticipated this month. Onsite work in preparation for the installation of the treatment units continues. As a recap, the current plant reactivation will produce 3,125 acre feet per year for City water customers, and startup is anticipated for October 2016.

All but one of the City's wells are operational. The Vera Cruz Well is offline and in need of mechanical repairs. However, the other wells are performing and providing the community with much needed groundwater supplies.

Conservation Efforts

The City's water conservation numbers for April 2016 show a 41 percent reduction in water usage compared to 2013. The overall running average since the Stage Three Drought was declared in May 2015 is 35 percent reduction in water use. The amended Stage Three Drought Emergency requires a citywide 35 percent water reduction to ensure the City has adequate supplies for the 2016 water year. The state-mandated water use reduction for the City is 12 percent below the 2013 water usage. The City has been one of the few water providers statewide that has consistently met and exceeded the state's water use reduction targets and mandated conservation standard.

The recommended conservation target of 35 percent is appropriate at this time, given the community's success in reducing demand and the need to further stretch our remaining water supplies, especially during the months of August and September. Staff will monitor the cumulative water savings for May and June 2016, and will use the information as a basis for determining whether or not to recommend additional restrictions for Council consideration in July 2016.

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APPROVED BY: City Administrator's Office