



Agenda Item No. \_\_\_\_\_

File Code No.

# CITY OF SANTA BARBARA

## COUNCIL AGENDA REPORT

**DRAFT**  
**ITEM 6D**

**AGENDA DATE:** January 12, 2016

**TO:** Mayor and Councilmembers

**FROM:** Water Resources Division, Public Works Department

**SUBJECT:** Drought Update and Annual Water Supply Management Report

**RECOMMENDATION:** That Council:

- A. Receive an update on the status of the current drought, drought-response capital projects, and continuing conservation efforts.
- B. Approve and adopt the City of Santa Barbara Water Supply Management Report for the 2015 water year, finding that groundwater resources are in long-term balance in accordance with the conjunctive management element of the City's Long-Term Water Supply Plan.

### **EXECUTIVE SUMMARY:**

Since January 2014, staff has been providing monthly drought updates on water supply status, drought-response capital projects, community conservation, and other drought-related issues. Staff will provide a monthly update for January 2016.

In addition, staff will present the 2015 Annual Water Supply Management Report (WSMR). The 2015 WSMR is a backwards-looking document that summarizes water supplies and issues for the water year that occurred from October 2014-September 2015. The report fulfills a mitigation requirement of the Coastal Branch of the State Water Project to manage water supplies to prevent long-term overdraft of local groundwater.

### **DISCUSSION:**

#### **Drought Update**

The Council declared a Stage One and subsequently a Stage Two drought condition respectively on February 11, 2014 and May 20, 2014 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 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 four years has averaged less than half of the long-term average. Consistent with the City's Long Term Water Supply Plan (LTWSP), 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 there is a 25 percent reduction in customer water use. In order to ensure adequate supplies to meet demand, supply projections must recognize the potential for the current dry weather pattern to continue. Accordingly, staff's supply projections through 2016 assume no significant deliveries from Gibraltar Reservoir, no additional Cachuma entitlement, and insufficient rainfall in Northern California to allow for dependable supplemental water purchases or state water deliveries. By 2017, the primary remaining potable supply would be groundwater, which has a limited production capacity, and the City's Charles E. Meyer Desalination Plant (Desalination Plant), which is scheduled to be reactivated by fall 2016.

Recent National Oceanic and Atmospheric Administration (NOAA) weather forecasts support a strong El Niño condition January through March 2016. Such conditions are often associated with increased rainfall for southern California. There have only been six strong El Niño events in recorded history. Four of those events have yielded rainfall that was average or above and two have yielded rainfall below average. Given the unpredictable nature of El Niño events and the unprecedented nature of the current drought situation, this phenomenon cannot be counted on to improve or end the current drought, therefore the City is planning for continued drought conditions.

### Drought Response Capital Projects

Work continues to move forward on the reactivation of the Desalination Plant. Staff now has an approved work plan from the County Environmental Health that requires all soils disturbed during construction to be removed and disposed of appropriately. All remaining contaminated soil, not disturbed, shall remain on site. Left untouched contaminated soils pose no threat to human health and safety. At the time this report was drafted the costs and schedule impacts were still unknown, however a separate Council item shall be coming to Council with more information and further direction. As a recap, the current plant reactivation will produce 3,125 acre feet annually for City water customers and start-up is scheduled for late September 2016, with a contract completion date of October 7, 2016. Negotiations continue with Montecito Water District on an arrangement to assist

them with their current and long term water needs. It is the goal of both agencies to final a draft agreement in January 2016.

### Conservation Efforts

The City's water conservation numbers for November 2015 show a reduction of XX percent compared to 2013 water demands.

With the Stage Three Drought declaration and the need for a 25 percent reduction, the Water Conservation Program has continued its enhanced public information campaign of targeted outreach to specific user types, including:

- increased weekly messaging through social media, online news outlets, and industry contacts;
- presentations to community and industry groups;
- additional printed materials with drought messaging;
- targeted utility bill messaging;
- drought signage throughout the City; and
- additional training and workshops.

### Revenues

Water revenues for Fiscal Year 2016, which includes August through November revenue, shows revenues are down X% or \$XXM from projected. Given the revenue shortfall, staff has made some temporary reductions in expenditures, coupled with increased revenues from grants, to eliminate the need for any mid-year rate adjustment. Staff will continue to monitor revenues and update the Council on changes.

### Annual Water Supply Management Report

The Water Supply Management Report (WSMR) is an annual report summarizing the activities of the past water year (October 1, 2014 through September 30, 2015). The report fulfills a mitigation requirement of the Coastal Branch of the State Water Project to manage water supplies to prevent long-term overdraft of local groundwater. City staff also uses the report to inform Council and the public about recent activities and current water supply conditions. Key issues of the report are summarized below.

- Lake Cachuma ended the water year on September 30<sup>th</sup> at 18 percent of capacity. As the City's largest water supply source, Lake Cachuma is the most important indicator of the City's water supply status. The last four water years (October 2011 - September 2015) have received the lowest cumulative rainfall in recorded history, for a consecutive four-year period. Due to severe drought and low lake levels, the gravity fed conveyance system to receive water from Lake Cachuma was anticipated to no long be operable as the lake level fell below the intake delivering water to the South Coast. The Cachuma Operation and Maintenance Board (COMB) was the lead

agency responsible for construction of an Emergency Pump Project (EPP) to continue to convey critical water supply. The project included installation of 3,600 feet of pipeline and a pumping barge. The Cachuma EPP has been in operation since August 2015, and COMB continues to monitor lake levels projections to assess possible relocation of the pumping barge to a deeper part of the lake, should that be necessary.

- A ruling by the State Water Resources Control Board (SWRCB) on water rights for the Cachuma Project is still pending. At issue, is how water should be managed to balance the needs for water supply while protecting endangered steelhead trout. The updated Final Environmental Impact Report has been completed and was officially entered in the record following a hearing in March 2012. The draft water rights order for the Cachuma Project remains a high priority for the SWRCB, although processing of water rights orders by the SWRCB has slowed due to drought workload. The SWRCB has not yet rescheduled a tentative date for release of the draft order.
- Gibraltar ended the water year at 9 percent of capacity. Siltation related to the 2007 Zaca Fire resulted in significant reduction in storage capacity at Gibraltar Reservoir and continues to cause increased water treatment costs. The reduced storage volume is the impetus for our work on initiating the “Pass Through” option under the 1989 Upper Santa Ynez River Operations Agreement (also known as the “Pass Through Agreement”).
- Groundwater resources are in balance, and long-term groundwater production does not exceed estimated basin yield. Several groundwater well projects are underway to increase production capacity during extended dry periods. Groundwater pumping is reduced during subsequent wetter years to allow the recovery of the water levels in the basin.
- The 2015 State Water Project (SWP) allocation was 20 percent of Table A contract amounts, or 660 AF for the City. In response to state-wide drought conditions, the City purchased supplemental water conveyed via the SWP. The City used a combined 4,361 AF from the SWP system in the 2015 water year. Approximately 4,200 AF of the City’s water is carried over in San Luis Reservoir. In addition, the City has 1,490 AF of banked water in the Dudley Ridge and Palmdale water banking programs. The initial allocation for 2016 is 10 percent, although this is subject to change depending on hydrologic and water supply conditions.
- The City's new recycled water filtration plant went online on November 2, 2015 replacing the previous filtration plant constructed in 1989. The new facility uses a membrane treatment technology to remove pathogens and particles that affect the appearance of the water, providing water quality that will reliably meet regulatory standards now and into the future. Now that the recycled water facility is back online, our recycled water customers are no longer subject to Stage Three Drought restrictions for water use.

- In accordance with the City's Water Plan, the Water Conservation Program is operated to minimize the use of potable water supplies, meet the requirements of the California Urban Water Conservation Council Best Management Practices, and achieve compliance with the State's 20% x 2020 per-capita water use reductions. Conservation measures are evaluated for cost effectiveness based on the avoided cost of additional water supplies. In Water Year 2015, the City continued implementation of the comprehensive South Coast Water Conservation Marketing Plan and the Drought Response Marketing Plan including increased training for landscape professionals, targeted advertising with specific calls to action, and providing guest speakers to neighborhood and community organizations. Workload for the Water Conservation Program has increased dramatically as a result of the drought and continues to remain high in Water Year 2015. The demand for free Water Checkups and landscape programs continues to increase as well as the number of water waste complaints and enforcement.
- Total supply produced for delivery to customers was 10,171 acre-feet (AF) for the year, with a per-capita water use of 90 gallons per person per day. Production and usage was down overall from the previous year in response to the Stage Three Drought condition, declared on May 5, 2015, requiring mandatory reductions in water use.

In summary, water supplies for Water Year 2016 are projected to be sufficient, provided that City-wide demands continue to achieve the 25 percent reduction target. The drought water supply strategy is based on adopted policies of the City's 2011 Long Term Water Supply Plan, and has been adapted to reflect current water supply conditions.

The draft WSMR has been made available for public review and comment. On December X, XXXX, the Water Commission reviewed the draft and voted X-X-X to recommend its adoption.

**ATTACHMENT(S):** 2015 Draft Water Supply Management Report

**PREPARED BY:** Joshua Haggmark, Water Resources Manager/KD/

**SUBMITTED BY:** Rebecca J. Bjork, Public Works Director

**APPROVED BY:** City Administrator's Office