

INFORMATION ITEM

2016 Water Year – “El Niño and Beyond”

Summary: A panel of water resource managers will inform the Council about this water year’s hydrology and the effects of the El Niño Southern Oscillation and provide an overview of current water supply conditions and operations. Representatives of water agencies in the Sacramento and San Joaquin River basins will describe how their respective agencies plan to manage water supplies based upon projected allocations.

Background

At the April 2015 Council meeting, the Council received a briefing on the status of water supplies and planned operations at the beginning of a fourth drought year. Low precipitation was exacerbated by record-breaking climatic conditions: an April 1, 2015 snow survey of zero, the lowest on record, and one of the warmest ever annual average temperatures for the state.

The 2016 Water Year (Oct. 1, 2015 through Sept. 30, 2016), with the help of El Niño, has brought California its wettest winter in five years. While key state and federal reservoirs in northern California including Lake Shasta, Lake Oroville, and Folsom Lake are exceeding historical annual averages as of mid-April, storage in central and southern California reservoirs remains below average. Snow survey data for the Sierra Nevada Mountains on April 13, 2016 shows the snow water equivalent to be 69 percent of the statewide normal for that date, in contrast with mid-April 2015 statewide snowpack, estimated to be 5 percent of average for that date. On the other hand, water dependent fish and wildlife populations are entering the water year with populations reduced by prior years’ drought conditions.

When the Council last heard panel discussions on hydrological conditions and drought response last April, Governor Brown had just issued Executive Order B-29-15, the third of four water conservation-related executive orders, which set forth the following drought actions:

- **Saving water.** The Governor ordered the State Water Resources Control Board (SWRCB) to implement various restrictions, most notably to achieve a 25 percent statewide reduction in potable urban water usage (tentatively extended by Executive Order B-36-15) through October 2016.
- **Increasing enforcement against water waste.** The executive order required the SWRCB to seek water use data in order to quantify and monitor agricultural and urban water use.
- **Investing in new technologies.** The California Energy Commission was ordered to implement a Water Energy Technology program to deploy innovative water management technologies for water users.
- **Streamlining government response to drought.** The Governor suspended regulations, streamlined processes, and expedited permits in order to respond

quickly to drought emergencies with measures such as the Department of Water Resources' (DWR) implementation of the Emergency Drought Salinity Barrier in the Delta.

After this Executive Order, Californians responded in kind by increasing their conservation. From April 2015 to February 2016, the SWRCB reported urban water users had reduced consumption by 24.8 percent compared to the same time period in 2012-13, saving over a million acre-feet of water. For example, Metropolitan Water District reports that its turf rebate program resulted in its customers removing more than 2,750 acres of landscaping grass over the last two years. Through these and other water-saving measures, Californians responded to the drought conditions and the Governor's proclamation by reducing their water use. Although some months during winter 2016 the state did not reach a 25 percent urban water use reduction, by adding up the year's overall savings, California came very close to the 25 percent reduction target.

Looking ahead to the final five months of the water year, both the State Water Project (SWP) and the Central Valley Project (CVP) have increased their allocation projections from the previous year, but the allocations differ regionally. In 2015, the SWP allocation was 20 percent and has increased to 45 percent in 2016, while the 2015 CVP allocation was zero percent and has risen to five percent for South-of-Delta Agricultural water contractors and 55 percent for South-of-Delta municipal water contractors in 2016. The increase in allocations is based upon current water storage levels and projected inflows to reservoirs from the winter's snowpack and compliance with various governing regulations, including water quality and endangered species protections. Overall, drought conditions persist throughout California—over 72 percent of the state is still suffering from "severe drought" or worse, and almost all of the state is still at some level of drought, according to the National Drought Mitigation Center.

Regardless of this water year's allocations, many water users that receive Delta exports still can't be certain of actual water deliveries due to unanticipated Delta pumping restrictions, which have been increasingly common in the face of declining salmon and smelt populations. Other impacts to water users could occur if the need to retain cold water in storage affects the timing of other water deliveries. A plan to manage Shasta Reservoir outflows to provide water temperature suitable for salmon and steel head will be presented to the SWRCB later this month.

Regarding the future of the temporary drought regulations, the SWRCB is scheduled to hold a workshop on April 20, 2016 to receive input on the potential modification of the current Emergency Regulation for Statewide Urban Water Conservation, considering regional differences in precipitation, system reliability, and other factors. If the Board decides to modify the regulation, it is scheduled to do so in May 2016.

Today's Panel

The purpose of today's panel is to brief the Council on current hydrologic and water supply conditions that were affected by this past winter's El Niño weather, as well as to

predict how the state, Central Valley, and other local constituent water agencies will use water allocations for the remaining water year. The panel members are the following:

- **John Leahigh**, State Water Project Operations Chief at the Department of Water Resources, will discuss current and forecasted hydrology and its effect on SWP operations and its allocation for state contractors. He will also address which (if any) DWR actions will potentially be carried over to address drought conditions.
- **David Guy**, president of the Northern California Water Association (NCWA), will provide background on how his association's constituents will use local allocations for the remainder of the year. He will also speak on the drought's implications for groundwater management and his thoughts on the recently passed Sustainable Groundwater Management Act.
- **Ara Azhderian**, water policy administrator at the San Luis and Delta Mendota Water Authority, will provide a similar briefing to that of Mr. Guy, with a focus on his constituent water agencies in the San Joaquin Valley and Santa Clara Valley.

The Council may wish to consider the following questions during this meeting:

- Even with higher precipitation this past winter, some reservoirs such as San Luis or Castaic Lake are below their capacity for this time of year. How might the state and water users work together to adapt to high winter flows and put them to more efficient use in the short and long term?
- What groundwater storage opportunities are developing this year due to the increase in precipitation and a larger snow pack?
- Have opportunities increased for more water transfers toward water storage in the system, either with surface or groundwater storage? What solutions might be on the horizon for more storage?
- Will local water districts and agencies continue to support efforts for efficiency and conservation now that their deliveries will likely be increased this year? In other words, what efficiency and conservation efforts will become permanent beyond these past five years of extreme drought with the understanding that prolonged periods of dry to drought conditions may be the new hydrologic norm?

Fiscal Information

Not applicable.

List of Attachments

No attachments.

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