



Santa Clara Valley Water District

File No.: 16-0686

Agenda Date: 6/13/2017

Item No.: 5.2.

BOARD AGENDA MEMORANDUM

SUBJECT:

Update on 2017 Water Supply Conditions.

RECOMMENDATION:

- A. Receive, review, and discuss updated information on 2017 water supply and drought response efforts, and provide direction to staff as necessary; and
- B. Adopt a Resolution RESCINDING RESOLUTION 17-08, AND CALLING FOR EFFORTS TO MAKE WATER CONSERVATION A WAY OF LIFE.

SUMMARY:

Staff will present up-to-date information on the 2017 water supply outlook, including water savings achieved, local water supply conditions, and imported water allocations. Staff will also present a recommendation, including comments from the Board's Water Conservation and Demand Management Committee, to transition efforts and messaging from drought response to an increased focus on the District's long-term water conservation program, which includes efforts to make water conservation a way of life.

Current Hydrologic and Groundwater Conditions

The 2016/2017 Water Year, beginning October 2016, is significantly improved compared to the past five years, with many northern California hydrologic indicators at or near record levels. Locally, conditions are also favorable, after a quick transition from the five-year drought. Statewide conditions are significantly improved, as indicated by the Governor declaring the drought state of emergency over for most the state. Current conditions include:

- Water use reductions achieved by retailers and the community, and increased groundwater recharge in 2016, have resulted in significantly improved groundwater storage conditions. End-of-year groundwater storage in 2016 was 307,000 Acre Feet (AF), which is the 'Normal' Water Shortage Contingency Plan stage. This was a great improvement from end-of-year 2015 storage of 232,000 AF, which was in the 'Severe' stage.
- As of May 1, 2017, local (San Jose) rainfall for the 2017 water year, which began October 15, 2016, is 17.17 inches, or 125 percent of average to date. Local reservoir storage is 125

percent of the 20-year average for this time of year. Groundwater elevations in three key index wells have increased with recent storms, and are above or near pre-drought levels.

- Local and imported supplies were less constrained in 2016 than in the past few years, and the District took advantage by increasing recharge operations compared to previous years. Managed groundwater recharge in 2016 in the Santa Clara Plain was nearly two-and-a-half times the five-year average, and groundwater storage improved compared to 2015. In 2017, managed groundwater recharge operations will be reduced due to facility maintenance needs, including repairing damage from the winter storms. However, even with reduced recharge operations, predicted end-of-year 2017 storage county-wide will be within Stage 1 (Normal) of the Water Shortage Contingency Plan (310,000 AF).
- Current State Water Project (SWP) allocations are 85 percent as of April 14, 2017.
- The U.S. Bureau of Reclamation announced on April 11, 2017, that Central Valley Project (CVP) allocations are 100 percent for both South of Delta M&I and Agricultural water service contractors. In accordance with our Reallocation Agreement, the District's total allocation will be 152,500 AF.
- The District is also planning to bank as much as 69,000 AF in to Semitropic, if the bank's put capacity allows. Current storage in Semitropic is 195,000 AF, or 56 percent of capacity. The maximum capacity is 350,000 AF, and the five-year average storage is 234,000 AF.
- San Luis Reservoir storage is projected to drop less extensively than in recent years, reaching a low of around 800,000 AF by the end of August 2017, and suggesting the reservoir will refill completely in early 2018. The total capacity of the reservoir is 2.04 million AF.

These improved conditions indicate that the drought is no longer in effect locally and that local and imported water supply conditions have recovered due to improved local and state-wide precipitation, the effective water management and conservation tools employed by the District and from the response from the community in reducing their water use.

Responding to Future Droughts

The District recognizes that while the local emergency drought is over, history proves that another drought is just around the corner. In looking at the historical record and potential impacts of climate change in the future, it is possible that even more significant droughts are possible.

Recent experience confirms that the District, retailers and the community respond effectively when drought conditions occur. This recently concluded drought is an excellent example. Due to the District's water supply operations and investments, and the tremendous response by the community, municipalities and water retailers (shown by cumulative savings of 28 percent in 2016, when compared to 2013), the county's water supplies have rebounded.

While the District's water supply operations and recent reductions in water use have contributed to our improved water supply conditions, investments in a diversified water supply portfolio that includes

long-term water conservation programs have been crucial in our ability to respond to this drought and future droughts. For example, during the recent drought, the Board approved many increases in these programs:

- Landscape conversion rebates were temporarily increased to \$2 per square foot (back to \$1 per square foot as of July 1, 2016).
- Several irrigation hardware rebates were increased.
- Graywater laundry to landscape rebates were increased up to \$200 per residential site for properly connecting a clothes washer to a graywater irrigation system.
- Rebate programs for commercial facilities were temporarily increased, including the rebate for connectionless food steamers, commercial high-efficiency clothes washers and the custom/measured rebate (as of July 1, 2016, some rebates are back to the original amounts).

The District's ability to effectively respond will continue into the future. Our long-term water supply planning considers both severe single year droughts and multiyear droughts like the one we very recently experienced. Board policy and our water supply plans are focused on maintaining a reliable water supply even in the face of drought. (For example: Board Policy includes E.2.1: Current and future water supply for municipalities, industries, agriculture, and the environment is reliable; and the Water Supply Master Plan current goal is to develop water supplies designed to meet 100 percent of average annual water demand identified in the District's Urban Water Management Plan during non-drought years and 90 percent of average annual water demand in drought years).

The District has made, and continues to make, significant investments in infrastructure and new water supply portfolio options to reduce the occurrence and magnitude of shortages in the future. One of the primary components of water supply reliability, now and in the future, is the long-term savings that our water conservation programs will achieve. Using 1992 as a baseline, the District will have saved almost 100,000 AF by 2030 (current savings is approximately 70,000 AF). The attached FY16 Water Conservation Report describes the active conservation programs implemented by the District during FY16 (Attachment 2).

Long term planning considers the uncertainty of the future under changed climate conditions and increased population growth. In the 2017 update to the District's Water Supply Master Plan, staff is considering a range of risk and demand scenarios, as well as a water supply investment portfolios to provide a reliable water supply even under these conditions.

Future Water Conservation and Water Use Efficiency- Making Water Conservation a Way of Life

Due to the improved water supply conditions, on April 7, 2017 the Governor issued Executive Order B-40-17 declaring an end to the drought state of emergency for most the state (https://www.gov.ca.gov/docs/5.9.16_Attested_Drought_Order.pdf). The Executive Order, which includes ongoing reporting requirements, requires the State Water Resources Control Board (State Board) to maintain the existing Emergency Regulation's (ER) water waste prohibitions and use restrictions as a bridge until permanent ones can be enacted. However, it also requires the State Board to rescind the portions of the existing ER that require a water supply stress test or mandatory

conservation standard. The Governor's Executive Order is transitioning the state from drought response to the long-term framework "Making Water Conservation a California Way of Life" (Attachment 3) as explained in: (http://www.water.ca.gov/wateruseefficiency/conservation/docs/20170407_EO_B-37-16_Final_Report.pdf). District staff will continue to assess the framework as it develops over the next few years, and if appropriate, bring back recommendations to the Board.

The framework focuses on four key themes:

1. Use water more wisely: includes new water conservation standards for urban water suppliers and permanent reporting.
2. Eliminate water waste: includes permanent water use prohibitions and minimize water loss through distribution system leaks.
3. Strengthen local drought resilience: requires urban water suppliers to submit Water Shortage Contingency Plans, conduct 5-year Drought Risk Assessments, and conduct and submit water budget forecasts annually.
4. Improve agriculture water use efficiency and drought planning: requires agriculture water suppliers to develop an annual water budget, identify agriculture water management objectives and implementation plans, quantify measures to increase water use efficiency, and develop a drought plan. It also requires agriculture water suppliers providing over 10,000 acres of irrigated land to prepare, adopt, and submit a water management plan every five years.

Actions included in the framework that can be implemented using existing authorities (e.g., permanent water use prohibitions and annual reporting) will likely be addressed in 2017 by the respective state agency. Actions that will require new/expanded authorities through new legislation (e.g., water conservation standards and Water Shortage Contingency Plan requirements) are being addressed during the 2017 legislative session. Provisional water conservation standards will likely be developed by 2018, final standards will be adopted by 2021, and full compliance will be required by 2025.

The attached recommended Resolution (Attachment 4) is consistent with the state's long-term framework. Ensuring consistent requirements and messaging between the District and the state is important and supportive to the community and water retailers in Santa Clara County.

The recommended Resolution calling for efforts to make water conservation a way of life recognizes the recently improved water supply conditions, in addition to the significant improvement of local water supply conditions and end-of-year local groundwater conditions in 2017 remaining in the 'normal' range. However, it also recognizes that even though water supply conditions have improved, the District wants to encourage the community to continue wise water practices developed during the 2012-2016 drought to ensure we are prepared for the next drought around the corner.

The recommended Resolution supports the permanent water waste prohibitions and use restrictions that are also called for by the state. These prohibitions and restrictions are scheduled to expire in November 2017 (the emergency regulation expires in November 2017 in accordance with the requirements of the California Water Code). However, the State Board will be considering permanent prohibitions and restrictions prior to November 2017. Current State Board mandated prohibitions include:

- The application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures;
- The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;
- The application of potable water to driveways and sidewalks;
- The use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system;
- The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall;
- The serving of drinking water other than upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served. and/or purchased;
- The irrigation with potable water of ornamental turf on public street medians; and
- The irrigation with potable water of landscapes outside of newly constructed homes and buildings in a manner inconsistent with regulations or other requirements established by the California Building Standards Commission and the Department of Housing and Community Development.

The recommended Resolution, rescinding Resolution 17-08, goes beyond the current state prohibitions by recommending that all municipalities consider a permanent landscape irrigation schedule of no more than three days a week.

The prohibitions and restrictions in the recommended Resolution have been presented to the District Board's Water Conservation and Demand Management Committee, the District's Landscape Committee and the Water Retailers' Water Conservation subcommittee. Each committee's feedback can be summarized as follows:

- Water Conservation and Demand Management Committee April 27, 2017: Board members supported the proposal for a resolution messaging that water conservation is a way of life, and suggested that the recommendation for a permanent restriction of irrigating no more than three days per week for irrigation be discussed with the other two committees mentioned below.
- Landscape Committee May 2, 2017: In general the committee supported the landscape irrigation schedule, with some suggesting that three days a week is too generous and that two days per week may be appropriate.
- Water Retailers' Water Conservation Subcommittee May 18, 2017: Retail staff at the meeting had varying responses. In general they agree that irrigating landscape three days per week is appropriate and support education to achieve it. However, there were various concerns regarding mandatory application of the requirement. Staff will discuss these concerns in more detail during today's Board discussion on this item.

The recommended Resolution also commends the community and retailers for their significant water use reduction efforts; supports additional efforts to increase countywide water use efficiency through continued investments, and supports water use efficiency targets and the water waste prohibitions currently in effect by the State, or as may be amended.

To ensure that the community understands the new permanent prohibitions and restrictions, the District will continue its Water Waste Inspector Program.

Also, while not specifically outlined in the Resolution, the District will continue its effective water conservation and water use efficiency programs outlined in the attached Water Conservation Report to meet the District's long-term savings goal of nearly 100,000 AF by 2030. To meet this goal, new and innovation programs are continually considered and will be added to the update to the 2017 Water Supply Master Plan as appropriate.

Furthermore, the recommended Resolution will improve water conservation messaging to the community. While the short-term calls for water use reductions during droughts are helpful, they do not resonate well with the community in the long term (2017 Telephone Survey of Santa Clara County Voters regarding Water Conservation). In addition, the majority of respondents did not know what their percent reduction target was last year.

Accounting for these community messaging considerations, and the improved water supply conditions in 2017 (groundwater storage will remain in Stage 1 of the Water Shortage Contingency Plan), District staff are recommending rescinding Resolution 17-08, which included a short-term percent water use reduction target of 20 percent. Staff believe that supporting continuation of the community's new water wise practices developed during the recent drought and the addition of permanent water use restrictions and water waste prohibitions, will be more effective in supporting efforts to make water conservation of way of life in Santa Clara County.

FINANCIAL IMPACT:

There is no financial impact associated with this item.

CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

ATTACHMENTS:

- Attachment 1: PowerPoint
- Attachment 2: FY16 District Water Conservation Report
- Attachment 3: Governor's Factsheet
- Attachment 4: Resolution

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