



# Santa Clara Valley Water District

File No.: 16-0294

Agenda Date: 6/14/2016

Item No.: \*2.3.

## BOARD AGENDA MEMORANDUM

### SUBJECT:

Update on 2016 Water Supply and Drought Response. (MOVED FROM ITEM 5.3)

### RECOMMENDATION:

- A. Receive, review, and discuss updated information on 2016 water supply and drought response efforts, and provide direction to staff as necessary; and
- B. \*Adopt Resolution: Calling for a 20% water use reduction through January 31, 2017, and a restriction on outdoor watering of ornamental landscapes or lawns with potable water to a maximum of three days a week; further, recommending that water retailers, local municipalities and the county of Santa Clara continue to implement mandatory measures as needed to achieve the 20% water use reduction target.

### SUMMARY:

\*Staff will present up-to-date information on District and retailer actions, estimated 2016 water savings, 2016 water outlook, and information to support the call for 20% water use reductions.

### Overview of District Response

The District's comprehensive drought response is being implemented through fifteen strategies grouped into four general categories: (A) water supply and operations; (B) water use reduction; (C) drought response opportunities; and (D) administrative and financial management.

### A. Water Supply and Operations

#### 1. Secure imported water supplies

### Background:

This strategy includes working with state and federal project operators: California Department of Water Resources (DWR) and U.S. Bureau of Reclamation (Reclamation), and contractors of the State Water Project (SWP) and Central Valley Project (CVP), to secure the District's 2015 contract carryover supplies and 2016 contract allocations. It also includes supporting initiatives to control Delta salinity; providing for return of water from the Semitropic Water Bank; determining the availability of supplemental water transfers and imported water carryover for 2016; and coordinating with San Francisco Public Utilities Commission (SFPUC) on drought impacts to the Hetch-Hetchy Project.

*\*Current Status:*

In 2015, the SWP and CVP allocations were 20% and 25%, respectively, providing 52,500 acre-feet (AF) of supplies to the county. Through the course of the calendar year 2015, staff secured a total of roughly 74,300 AF in supplemental supplies in the form of transfers, exchanges, public health and safety allocations, and Semitropic banking withdrawals. Deliveries to municipal water retailers within the county by the SFPUC are estimated at approximately 42,000 acre-feet.

In 2016, as water supply conditions have improved, so have our 2016 imported water allocations. On April 21, 2016, DWR announced that State Water Contractors' SWP allocation would be 60% of contract quantity. On March 3, 2016, Reclamation made 40,320 acre-feet available to the District as Public Health and Safety supply. On April 1, 2016, Reclamation announced the water supply allocations for the CVP contractors. As a South-of-Delta water service contractor, the District will receive 5% of its agricultural and 55% of its Municipal and Industrial (M&I) contract supplies. Further updates to these allocations are not expected at this time. San Luis Reservoir storage is tracking at around 33 percent capacity and 42 percent of historic average storage levels. Hetch-Hetchy storage conditions are excellent and the SFPUC anticipates no supply shortages this year.

Concerns regarding impacts to fisheries in the Sacramento River and the Delta are still heightened due to very low abundance levels (winter-run Chinook and Delta Smelt) and the focus of the resource agencies on cold-water storage accumulation in Shasta for releases in the summer and fall. In recent weeks, despite high river flows, exports by the federal and state water project pumps have been restricted due to concerns over these species.

The District's Imported Water Unit (IWU) staff is working to develop agreements to secure roughly 20,000 AF of exchange supplies for CY2016 to support increasing storage levels in Semitropic. Current Semitropic groundwater bank reserves are at 181,669 AF. Staff is monitoring SWP and CVP operational issues for implications to water supply, salinity, turbidity, and ability to secure transfers, exchanges, and Semitropic water supplies.

## 2. Manage surface water and groundwater supplies

**Background:**

To maximize water supply reliability and protect groundwater, this strategy optimizes distribution of limited local and imported supplies, including deliveries to the three water treatment plants, operation of District reservoirs and the groundwater recharge system, and deliveries to untreated surface water users. Given current water supply conditions, ongoing communication is required with regulatory agencies and other stakeholders regarding changing conditions in reservoirs, creeks and recharge ponds.

*\*Current Status:*

Due to the healthier water supply conditions compared to last year, the District expects to perform an above-average recharge program this year. In addition, the District received concurrence on our summer reservoir and diversion operations plan from the California Department of Fish and Wildlife.

Estimated groundwater storage at the end of 2015 was 232,000 acre-feet, which falls within the Severe Stage of the Water Shortage Contingency Plan. Even with normal rainfall in 2016, groundwater storage will not return to the Normal Stage of the Water Shortage Contingency Plan in a single year. Groundwater storage is projected to be in the upper end of the Alert Stage if a 20% water use reduction is achieved in 2016, compared to 2013 (15% is the expected residual savings even if the Board does not continue the call through 2016. Staff are recommending 20% through January 2017). Staff continues to closely track groundwater conditions through monthly water level measurements at 225 wells and regular subsidence monitoring.

3. Optimize treated water quality and availability.

**Background:**

This strategy focuses on optimizing treatment plant operations and source water supplies to meet drinking water quality and reliability objectives, in coordination with the District's retail treated water contractors. It includes continuing to meet treated water quality objectives despite drought-induced water quality conditions in the Delta this year. This strategy also includes working with SFPUC to use the Hetch-Hetchy Intertie when necessary to meet treated water schedules.

*\*Current Status:*

The prolonged drought has had a significant impact on water quality in the Delta. Imported water from the SWP has contained elevated levels of organic carbon and bromide, which are precursors to the formation of disinfection byproducts. These precursors, combined with lower water demands, have resulted in elevated levels of disinfection byproducts in the District's treated water, particularly in the west side of the valley where the Rinconada Water Treatment Plant (RWTP) uses chlorine for

disinfection. To reduce disinfection byproducts, RWTP switched to using ferric chloride instead of alum as a coagulant as of early March 2016. The results have been positive in that disinfection byproducts leaving RWTP and in the west side distribution system have been well below 80% of the Maximum Contaminant Level (MCL) target. The District's other treatment plants, Penitencia and Santa Teresa, with their ozone systems, have been better able to readily meet the disinfection byproducts MCL.

## B. Water Use Reduction

### 4. Reduce 2016 water use through June 30, by 30% compared to 2013 water use.

#### Background:

This strategy includes promoting short-term and long-term actions to meet the 30% water use reduction target called for by the Board on March 24, 2015 and extended on November 24, 2015, as well as tracking progress towards meeting that target. Activities include promoting the District's water conservation programs; coordinating with retail water agencies, municipalities and the County of Santa Clara on drought response ordinances and programs; and implementing a public outreach and education campaign.

#### *\*Current Status:*

In 2016, water use was reduced by 34% for the month of April, compared to April 2013. Cumulative 2016 savings through April 2016 is 27%. Cumulative year end savings in 2015 was 27%, but only 11% through April 2015.

The District has seen a significant increase in participation in its landscape rebate program and issued rebates for approximately 240,000 pieces of irrigation equipment and over 7.7 million (M) square feet of turf conversion since the start of the drought in 2014. Another 20,000 pieces of equipment and 1.2M square feet of turf conversion has been approved and are considered "in-process". At this point, the entire two-year budget of \$22.8M has been allocated. Staff is currently reviewing older applications that are past their due date, which will likely free up additional money to fund projects on the wait list (the current estimate is that there's approximately \$1.9M in projects on the wait list).

On May 31, 2016, the Board's Water Conservation Ad Hoc Committee discussed the additional \$1.0M that was added to the landscape rebate program's FY 17 budget and recommended that it be distributed as follows:

- \$800,000 for new landscape rebate program participants,

- \$100,000 for Ecology Action's lawn replacement program for schools and other publicly owned facilities in disadvantaged communities,
- \$100,000 for design/irrigation/maintenance assistance

On May 18, 2016, the State Water Resources Control Board adopted an updated Emergency Regulation (Attachment 4) that provides the option for water retailers throughout the state to determine their conservation standard based on local conditions. To set the standard, water retailers are required to perform a "stress test" on their system by assuming the next three years are also dry (a repeat of 2013-2015 hydrology). If the water retailer is facing a shortage over the three year period, that shortage then becomes their conservation standard for 2016. If a water retailer chooses to not self-certify, their conservation standard will be based on their average July through September 2014 residential gallons per capita per day (R-GPCD). The higher the R-GPCD, the higher their conservation standard will be. The updated Emergency Regulation is in place through January 2017.

Wholesale water agencies, such as the District, are required to identify how much water they expect they can deliver to each of its individual water retailers over the three year period. To comply, the District will post on its website the volume of treated water it believes it can deliver over the three year period (Attachment 5). The posting will also include language regarding the District's role in managing the groundwater basins.

Notwithstanding the State Water Resources Control Board's rather narrow requirements in its Emergency Regulation, which are not well suited for groundwater management agencies such as the District, staff's recommendation for our local call for water use reduction continues to rely on projected end of year groundwater storage.

5. Ensure that District facilities set a model for water conservation.

Background:

Many water conservation measures have been implemented at District facilities in past years, including low flow toilets, dual flush valves in high use areas, low flow aerators on faucets in restrooms and break areas, low flow devices in showers, drought tolerant landscaping and/or native vegetation, and Calsense intelligent irrigation controllers for landscaping. In 2013, the District reduced water use by 11% (10.8 million gallons) compared to 2012 (12.1 million gallons).

*\*Current Status:*

There have not been any changes to this strategy. In 2014, the District reduced water use at its facilities by 35% compared to 2013. In 2015, January through December water use was reduced by 43%.

6. Support customers and key stakeholders to minimize adverse drought impacts.

*Background:*

This strategy includes providing assistance to retail water agencies for their outreach, operations, and conservation programs. The District meets regularly with the Water Retailers and subcommittees (Water Supply, Treated Water, Water Quality, Groundwater, Conservation, Communication and Ad Hoc Drought Response Subcommittees). Assistance is also being provided to surface water customers, agricultural water users, municipalities, and others as they implement drought response. The Landscape Committee is convened to discuss drought response as it affects landscape businesses. This strategy includes tracking and reporting customer and stakeholder requests.

*\*Current Status:*

The District is continuing to meet regularly with retail water agencies and subcommittees. New and updated materials are provided to retailers as they are finalized. The following table is a summary of the 2016 calls to our drought hotline (408-630-2000), incoming emails to [drought@valleywater.org](mailto:drought@valleywater.org) [drought@valleywater.org](mailto:drought@valleywater.org), and the total number of water waste reports entered into Access Valley Water (through the web, the smart phone app, or entered by staff). The volume of reports is fairly stable, which is far different than last year, when reports jumped to 939 new cases in April 2015 and 886 in May 2015, compared to 268 new cases in May 2016.

| Month              | Incoming calls to Hotline | Incoming emails to drought@valleywater.org | New "Access Valley Water" Water Waste Cases |
|--------------------|---------------------------|--|---|
| January            | 31                        | 39   | 274   |
| February           | 31                        | 26   | 337   |
| March              | 34                        | 32   | 266   |
| April              | 16                        | 14   | 171   |
| May                | 59                        | 33   | 268   |
| <b>2016 Totals</b> | <b>171</b>                | <b>144</b>                                 | <b>1,316</b>                                |

C. Drought Response Opportunities

7. Leverage community awareness to advance long-term conservation measures.

**Background:**

This strategy includes measures to increase participation in the District's long-term water conservation programs. It also identifies, evaluates and supports new innovative conservation measures, including Safe Clean Water (SCW) Water Conservation Research Grant efforts, which are expected to be implemented in calendar year 2016. Staff is also investigating opportunities for advancing sustainable, long-term savings through land use initiatives, where feasible.

*\*Current Status:*

On September 8, 2015, the Board approved the evaluation criteria for Round 3 of the Safe, Clean Water funded Water Conservation Research Grant program. The Board also approved adding \$150,000 to Round 3, thereby making \$250,000 available. The Request for Proposals was released on September 30, 2015, with bids being due on November 30, 2015. Seven applications were submitted and the following projects met the minimum criteria and were approved for funding:

- City of Mountain View - Advanced Metering Infrastructure Feasibility Study and Pilot, \$50,000
- Velotron LLC - Micro-Streams Faucet Adapter, \$30,000
- Purissima Hills Water District - Residential Advanced Metering Program, \$50,000

Staff are participating with representatives from local cities, the county, Sustainable Silicon Valley, and Joint Venture Silicon Valley on a Task Force to draft water efficiency guidelines for new developments. The idea is to set the bar even higher in terms of water use efficiency. Language for alternate supplies such as graywater, rainwater harvesting, stormwater capture, and on-site reuse is being incorporated. The Task Force is currently developing the model ordinance language and is scheduled to meet again on July 5, 2016. The goal is to complete the model ordinance within the next few months.

**8. Expedited Purified Water Program development and implementation.**

**Background:**

The current drought has raised interest in expediting implementation of both non-potable and potable reuse components of the District's long-term water supply plans by existing and potential recycled water partners, legislators, water users and others. Staff is identifying and preparing plans for high-priority recycled/purified water projects (up to 45,000 acre-feet per year) to help alleviate water supply shortages if the current drought continues; pursuing regulatory proposals to provide for safe implementation of indirect and direct potable reuse projects; and completing master planning of all recycled water efforts. Other aspects of this strategy include support and pursuit of legislative

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proposals to streamline the implementation of recycled water projects and provide potential funding.

*\*Current Status:*

On April 28, 2015, the Board authorized the District CEO to negotiate and execute six agreements to expedite the District's Expedited Purified Water Program. The work includes four new consultant service agreements (related to planning work, groundwater studies, operations studies, and pursuit of grant opportunities), and two amendments to existing consultant service agreements (related to public outreach and update of the South County Recycled Water Master Plan). All of these six agreements have been executed. Staff provided a Board update on the District's Expedited Purified Water Program on June 22, 2015, including information on public-private-partnerships (P3). Further updates were provided under two separate agenda items at the September 22, 2015, Board meeting.

Staff retained a consultant program manager, HDR Inc., on September 22, 2015, to manage the District's Expedited Purified Water Program Manager services. A proposed preliminary engineering contract with RMC Water and Environment to support the Expedited Purified Water Program was approved by the Board on February 9, 2016, for CEO execution. A Request for Proposals (RFP) for California Environmental Quality Act (CEQA) consultant services was issued in November 2015, and interviews were held on February 11, 2016.

Agenda item updates were provided to the Board on January 12, 2016. Staff released a Request for Qualifications (RFQ) for design/build services for expanding the Silicon Valley Advanced Water Purification Center (SVAWPC) and for constructing the main purified water pipeline to the Los Gatos recharge ponds on January 15, 2016. On the same date, a RFQ was issued for public-private partnership (P3) entities potentially interested in undertaking financing, development and operation of the entire set of facilities in the Expedited Purified Water Program. The short-list for both tracks was posted on May 31, 2016. The corresponding RFPs for both the design/build track and the P3 track are planned to be released in fall 2016, pending Board review and discussion of the pros-cons of each procurement track.

A draft South County Recycled Water Master Plan (Master Plan) was completed in December 2015 and was presented to the District Board on February 23, 2016, the SCRWA Board on March 2, 2016, and to the City Council of Morgan Hill also on March 2, 2016. A public workshop was held on March 14, 2016. The Master Plan is scheduled to be completed by June 30, 2016.

Staff began conceptual planning efforts on September 9, 2015, to develop a countywide recycled and purified water master plan, including the development of corresponding framework/standards for wholesale/retailers. A scope development workshop with the recycled and purified water producers, wholesalers, and retail agencies in the county took place on May 16, 2016. Staff is in the process of scheduling a second scope development workshop with additional stakeholders in June 2016. The District anticipates releasing a request for proposal for consultant services by August 2016 to assist with the development of the countywide plan.



9. Leverage opportunity to maintain uniquely accessible District facilities.

**Background:**

Many District facilities are currently more accessible than normal for inspections and maintenance, given the limited surface water in District reservoirs and limited raw water operations. For example, some groundwater recharge ponds that have been in continuous service for decades have been drained, providing opportunity for cleaning and refurbishment. This strategy took advantage of unique conditions in 2014 and 2015 to expedite work and advance District asset management.

*\*Current Status:*

This strategy has been completed, as all available maintenance opportunities made available during the drought have been completed. If conditions change and other opportunities become available, this strategy will be re-evaluated.

10. Leverage opportunity to further develop the District's workforce.

**Background:**

Effective drought response requires reassignment of staff resources to meet current needs, and this reassignment also creates opportunity for staff to gain new knowledge, skills and abilities. This strategy includes establishing processes for fair and expedited reassignment of staff resources to assist with implementation of drought response so that the District is better able to serve the public this year and in future years through workforce development.

*\*Current Status:*

This strategy is unchanged since the last month's report to the Board. There are currently 7 filled Drought Reassignments. The Managers report that three to six of the existing Drought Reassignment Positions will need to be filled once the current incumbent's time is up. The managers can contact Recruitment at that point to get the position posted and filled.

11. Advance community knowledge, awareness, and understanding of the water supply system and services provided by the District.

**Background:**

This strategy includes efforts to expand outreach communication and engagement with the general public and working even more closely with media to convey drought and water conservation messages. This also provides an opportunity to expand outreach to key stakeholders (e.g., city councils) and regional groups.

*\*Current Status:*

Staff has begun developing a summer drought awareness campaign. The primary message is that our area is still facing drought impacts and next year could again be dry, so residents and businesses should continue the good water saving habits they have developed. Ads will also promote the Water Wise House Call program. Messaging will be adjusted, as necessary, to align with the Board's call for water use reductions.

**D. Administrative and Financial Management**

12. Secure Federal and State legislative support to offset drought impacts and accelerate conservation and recycling programs.

**Background:**

Staff is tracking a number of State and federal legislative initiatives aimed at providing drought relief and funding to offset costs of drought response and accelerate water supply and water use efficiency projects. This strategy focuses on providing input to legislators and implementing agencies on drought impacts and needs, as well as grant application requirements to maximize funding opportunities for District and customer projects and programs. The strategy also includes pursuing funding and reimbursements for District projects and programs and for collaborative opportunities that assist customers with offsetting financial impacts of the drought.

*\*Current Status:*

Staff is continuing to monitor and provide input on the development of guidelines for Proposition 1 grant funding and participate in legislative activities consistent with Board-approved positions.

13. Leverage Emergency Operations Center (EOC) to assist in supporting drought efforts.

**Background:**

Soon after the Governor's January 17, 2014, Declaration of Drought Emergency, the District activated its EOC at Level 1 to facilitate response to drought-status inquiries from the State Operations Center (SOC), Coastal Regional Operations Center (REOC) and the local Santa Clara County Operational Area (OA). Emergency resource requests may be requested through the EOC, as determined by the District's EOC Director, and the EOC also helps track drought-related costs for potential reimbursement. The EOC communication structure provides opportunity for additional outreach to policy and staff representatives of local municipalities, the county and emergency response providers about the need to achieve the 30% water use reduction target and to promote water conservation.

*\*Current Status:*

Current status is unchanged from last month. The EOC continues to submit a bi-weekly status update to the OA who loads the information into a database used by the SOC.

14. Adjust District resource allocations necessary to respond to drought and provide development of staff.

**Background:**

This strategy includes identifying, tracking and processing budget adjustments and other adjustments of resources as needed to support overall implementation of drought response. In addition to staff resource adjustments discussed in Strategy #10, drought response is expected to include increased/adjusted budgets for an effective water use reduction campaign, additional pumping and water treatment costs, extraordinary maintenance projects, and supplemental imported water. The strategy includes clearly identifying the schedule impacts and other impacts of these resource adjustments as non-drought-related work is delayed or removed from project work plans.

*\*Current Status:*

The District has allocated \$5.8 million in staff labor resources, \$12 million in services and supplies (includes pond cleanup and mercury removal) and \$27.3 million in budget adjustments for drought response and water conservation programs since February 2014.

15. Support the Board of Directors.

Background:

This strategy includes ensuring that the Board is provided timely and accurate information on current water supply conditions and drought response to support their efforts and linkages to the community. This strategy includes support for the Board’s Ad Hoc Water Conservation Committee and Ad Hoc Recycled Water Committee to discuss drought-related opportunities to advance these important programs. It also includes ensuring that Board advisory committees are informed of current water supply, drought response measures, and implementation of the 2016 water use reduction campaign. Board updates are provided monthly on current water supply and drought response, including progress toward achieving the 30% water use reduction target.

*\*Current Status:*

There have not been any changes to this strategy. In addition to the on-going information sharing to Board committees, the Board is supported in its efforts to connect with the community, including assistance with speaking engagements and opportunities to speak to the news media.

**FINANCIAL IMPACT:**

\*There is no impact to any of the fund reserves. For the Board’s information, since February 2014, the drought emergency has incurred costs totaling approximately \$45.1 million detailed in the table that follows:

|   |   |
|---|---|
| District Labor                            | \$5. 8 million  |
| District Services and Supplies            | \$12 million (includes percolation pond clean-up and mercury removal)   |
| Board and CEO approval budget adjustments | \$27.3 million. The breakdown is as follows: • Conservation - \$16.4 million (which includes the \$4.0 million funded by anticipated incremental FY 16 Ad Valorem tax revenue and \$0.9 million from Water Utility operations cost savings as approved by the Board at its October 27, 2015 meeting) • Outreach - \$2.4 million • Imported Water - \$8.5 million for purchased water and reverse flow consultant. |

**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 change in the physical environment.

**ATTACHMENTS:**

- \*Original Agenda Memorandum
- \*Attachment 1: Supplemental Agenda Memorandum
- \*Supplemental Attachment 1: PowerPoint
- \*Supplemental Attachment 2: Monthly Drought Status Report
- \*Supplemental Attachment 3: Resolution
- \*Supplemental Attachment 4: State Water Resources Control Board
- \*Supplemental Attachment 5: SCVWD State Board Compliance
- \*Handout 2.3-A Cohen
- \*Handout 2.3-B Water Retailers
- \*Handout 2 3-C Hogle

**UNCLASSIFIED MANAGER:**

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