

March 17, 2017

MEETING NOTICE

WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE

Members of the Water Conservation and Demand Management Committee:

Director Nai Hsueh
Director Linda J. LeZotte, Vice Chair
Director Richard P. Santos, Chair

Staff Support of the Water Conservation and Demand Management Committee:

Norma Camacho, Interim Chief Executive Officer
Jim Fiedler, Chief Operating Officer, Water Utility
Stanly Yamamoto, District Counsel
Garth Hall, Deputy Operating Officer, Water Supply Division
Rick Callender, Deputy Administrative Officer, Office of Government Relations
Jerry De La Piedra, Water Supply Planning and Conservation Manager, Water Supply
Planning and Conservation Unit
Vanessa De La Piedra, Groundwater Management Manager, Groundwater Monitoring and
Analysis Unit

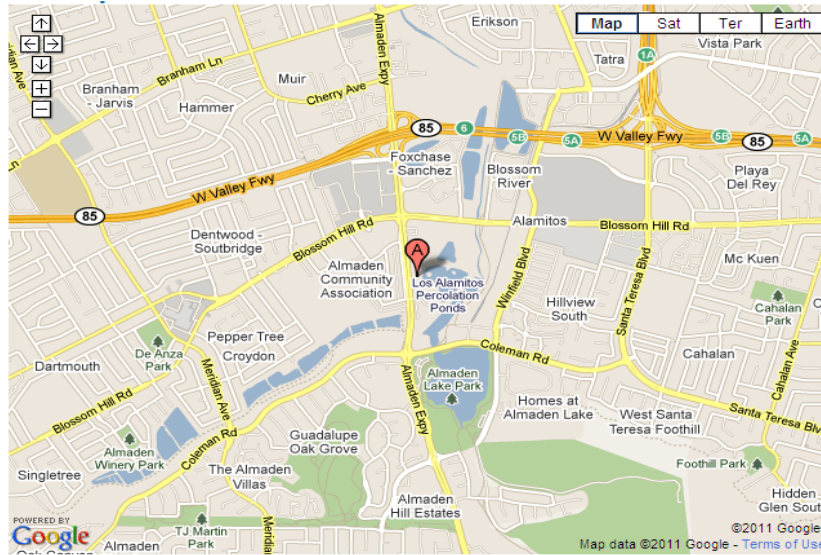
The regular meeting of the Water Conservation and Demand Management Committee is scheduled to be held on **Friday, March 24, 2017, at 10:00 a.m.** in the Headquarters Building Boardroom, located at the Santa Clara Valley Water District, 5700 Almaden Expressway, San Jose, California.

Enclosed are the meeting agenda and corresponding materials. Please bring this packet with you to the meeting.

Enclosures



**Santa Clara Valley Water District - Headquarters Building,
5700 Almaden Expressway, San Jose, CA 95118**



From Oakland:

- Take 880 South to 85 South
- Take 85 South to Almaden Expressway exit
- Turn left on Almaden Plaza Way
- Turn right (south) on Almaden Expressway
- At Via Monte (third traffic light), make a U-turn
- Proceed north on Almaden Expressway approximately 1,000 feet
- Turn right (east) into the campus entrance

From Morgan Hill/Gilroy:

- Take 101 North to 85 North
- Take 85 North to Almaden Expressway exit
- Turn left on Almaden Expressway
- Cross Blossom Hill Road
- At Via Monte (third traffic light), make a U-turn
- Proceed north on Almaden Expressway approximately 1,000 feet
- Turn right (east) into the campus entrance

From Sunnyvale:

- Take Highway 87 South to 85 North
- Take Highway 85 North to Almaden Expressway exit
- Turn left on Almaden Expressway
- At Via Monte (third traffic light), make a U-turn
- Proceed north on Almaden Expressway approximately 1,000 feet
- Turn right (east) into the campus entrance

From San Francisco:

- Take 280 South to Highway 85 South
- Take Highway 85 South to Almaden Expressway exit
- Turn left on Almaden Plaza Way
- Turn right (south) on Almaden Expressway
- At Via Monte (third traffic light), make a U-turn
- Proceed north on Almaden Expressway approximately 1,000 feet
- Turn right (east) into the campus entrance

From Downtown San Jose:

- Take Highway 87 - Guadalupe Expressway South
- Exit on Santa Teresa Blvd.
- Turn right on Blossom Hill Road
- Turn left at Almaden Expressway
- At Via Monte (first traffic light), make a U-turn
- Proceed north on Almaden Expressway approximately 1,000 feet
- Turn right (east) into the campus entrance

From Walnut Creek, Concord and East Bay areas:

- Take 680 South to 280 North
- Exit Highway 87-Guadalupe Expressway South
- Exit on Santa Teresa Blvd.
- Turn right on Blossom Hill Road
- Turn left at Almaden Expressway
- At Via Monte (third traffic light), make a U-turn
- Proceed north on Almaden Expressway approximately 1,000 feet
- Turn right (east) into the campus entrance

AGENDA
WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE

FRIDAY, MARCH 24, 2017

10:00 a.m. – 12:00 p.m.

**Santa Clara Valley Water District
Headquarters Building Boardroom
5700 Almaden Expressway
San Jose, CA 95118**

Time Certain

10:00 a.m.

- 1. Call to Order/Roll Call**
- 2. Time Open for Public Comment on Any Item Not on the Agenda**
Comments should be limited to two minutes. If the Committee wishes to discuss a subject raised by the speaker, it can request placement on a future agenda.
- 3. Approval of Minutes**
3.1 Approval of Minutes – February 23, 2017, meeting
- 4. Discussion/Action Items**
 - 4.1 Update on Golf Course Coalition Proposal (Justin Burks/Ron Zraick)
Recommendation: This is an information only item and no action is required.
 - 4.2 Update on the Sustainable Groundwater Management Act (SGMA)
(George Cook)
Recommendation: This is an information only item and no action is required.
 - 4.3 Presentation on Conservation and Demand Management Elements of the Draft 2017 Water Master Plan (Tracy Hemmeter)
Recommendation: This is an information only item and no action is required.
 - 4.4 Update on 2017 Water Supply Conditions (Garth Hall)
Recommendation: This is an information only item and no action is required.
 - 4.5 Review of Water Conservation and Demand Management Committee Work Plan, any Outcomes of Board Action or Committee Requests and Schedule the next Committee Meeting (Committee Chair)
Recommendation: Schedule 2017 meetings and review the Committee work plan to guide the Committee's discussions regarding policy alternatives and implications for Board deliberation.
- 5. Clerk Review and Clarification of Committee's Requests**
This is an opportunity for the Clerk to review and obtain clarification on any formally moved, seconded, and approved requests and recommendations made by the Committee during discussion of Item 4.
- 6. Adjourn:**

REASONABLE EFFORTS TO ACCOMMODATE PERSONS WITH DISABILITIES WISHING TO ATTEND COMMITTEE MEETINGS WILL BE MADE. PLEASE ADVISE THE CLERK OF THE BOARD OFFICE OF ANY SPECIAL NEEDS BY CALLING (408) 630-2277.

Meetings of this committee will be conducted in compliance with all Brown Act requirements. All public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body will be available for public inspection at the same time that the public records are distributed or made available to the legislative body, at the following location:

Santa Clara Valley Water District, Office of the Clerk of the Board
5700 Almaden Expressway, San Jose, CA 95118

Water Conservation and Demand Management Committee:

Purpose: To support the Board of Directors in achieving its policy to provide a reliable water supply to meet current and future water usage by making policy recommendations related to demand management.



WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE MEETING

DRAFT MINUTES

**WEDNESDAY, FEBRUARY 23, 2017
10:00 AM**

(Paragraph numbers coincide with agenda item numbers)

A meeting of the Water Conservation Ad Hoc Committee was held on February 23, 2017, in the Headquarters Building Boardroom at the Santa Clara Valley Water District, 5700 Almaden Expressway, San Jose, California.

1. CALL TO ORDER/ROLL CALL

Chair, Director Richard P. Santos called the meeting to order at 10:04 a.m.

Board Members in attendance were: Director Nai Hsueh and Director Richard P. Santos.

Staff members in attendance were: Glenna Brambill, George Cook, Jerry De La Piedra, Vanessa De La Piedra, Garth Hall, Bassam Kassab, and Erick Soderlund.

2. TIME OPEN FOR PUBLIC COMMENT ON ANY ITEM NOT ON AGENDA

There was no one present who wished to speak.

3. APPROVAL OF MINUTES

It was moved by Director Nai Hsueh, seconded by Director Richard P. Santos and unanimously carried, to approve the minutes of the January 25, 2017, Water Conservation and Demand Management Committee meeting, as presented.

4. DISCUSSION/ACTION ITEMS

4.1 UPDATE ON GOLF COURSE COALITION PROPOSAL

Mr. Jerry De La Piedra reviewed the materials as outlined in the agenda item.

Director Nai Hsueh and Mr. Ron Zraick of Cinnabar Hills Golf Club spoke on this agenda item.

Mr. Brian Boyer of Cinnabar Hills Golf Club was available to answer questions.

No action was taken.

4.2 UPDATE ON STATE WATER RESOURCES CONTROL BOARD (SWRCB) (EMERGENCY REGULATION; MAKING WATER CONSERVATION A CALIFORNIA WAY OF LIFE)

Mr. Jerry De La Piedra reviewed the materials as outlined in the agenda item.

Mr. Tim Guster of Great Oaks Water Company spoke on this agenda item along with a handout.

No action was taken.

4.3 UPDATE ON THE EVALUATION OF NEW SUSTAINABLE GROUNDWATER MANAGEMENT ACT (SGMA) AUTHORITIES

Ms. Vanessa De La Piedra reviewed the materials as outlined in the agenda item along with a handout.

Mr. Tim Guster of Great Oaks Water Company and Director Nai Hsueh spoke on this agenda item.

No action was taken, however, determined next meeting will be Friday, March 24, 2017, 10:00 a.m.

4.4 REVIEW OF WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE WORK PLAN, ANY OUTCOMES OF BOARD ACTION OR COMMITTEE REQUESTS AND SCHEDULE THE NEXT COMMITTEE MEETING

Mr. Jerry De La Piedra, Ms. Glenna Brambill and Director Nai Hsueh reviewed the materials as outlined in the agenda item. Director Hsueh stated that work plan item #12 has been incorporated in the other work plan items #1 – #11 so #12 can now be removed from the work plan.

The next meeting is confirmed for Friday, March 24, 2017, 10:00 a.m.

Introduction of attendees:

Mr. Charles Ice, of San Mateo, Mr. Michael Bolzowski of California Water Service Company, Mr. Curt Rayer and Mr. Bill Tuttle of San Jose Water Company, Mr. Tom Zigterman of Stanford University and Mr. Tim Guster of Great Oaks Water Company.

5. CLERK REVIEW AND CLARIFICATION OF COMMITTEE'S REQUESTS

There were no action items for Board consideration.

6. ADJOURNMENT

Chair Santos adjourned at 10:32 a.m. to the next regular meeting, Friday, March 24, 2017, at 10:00 a.m. in the Santa Clara Valley Water District Headquarters Building Boardroom, 5700 Almaden Expressway, San Jose, California.

Glenna Brambill
Office of the Clerk of the Board

Approved:



Committee: Water Conservation and Demand Management
Meeting Date: 03/24/17
Agenda Item No.: 4.1
Unclassified Manager: Garth Hall
Email: ghall@valleywater.org
Est. Staff Time: 5 Minutes

COMMITTEE AGENDA MEMO

SUBJECT: Update on Golf Course Coalition Proposal

RECOMMENDED ACTION:

This is an information only item and no action is required.

SUMMARY:

At the request of the Water Conservation and Demand Management Committee (Committee), staff has discussed the draft Golf Course Coalition proposal, titled "Alternative Means of Compliance for Golf Courses and Sports Fields" with the water retailers at their October Water Retailers Meeting as well as a November Water Conservation Subcommittee (Subcommittee) meeting. District staff has since worked with the Subcommittee to initiate a small working group to discuss this concept further. The small working group has provided comments to the proposal, which was shared with the full Subcommittee on March 16, 2017. Staff will provide a verbal update on comments received at the March 16th meeting.

BACKGROUND:

Golf courses, typically a target of the public during a drought, have each responded in their own way to the ongoing drought. In many cases the response is dependent on their water provider and the restrictions in place, which can vary significantly from one jurisdiction to the next. To address this imbalance, as well as other issues, the majority of golf courses in Santa Clara County have organized to form a Golf Course Coalition (Coalition). The Coalition has been tasked with developing and promoting uniform requirements throughout the county for large landscapes that utilize potable water. This would include consistent water use reduction targets, reporting requirements, and potential consequences for non-compliance (e.g. fines). The specifics, including the definition of "large landscape", are still to be determined.

ATTACHMENT(S):

None



Committee: Water Conservation and Demand Management
Meeting Date: 03/24/17
Agenda Item No.: 4.2
Unclassified Manager: Garth Hall
Email: ghall@valleywater.org
Est. Staff Time: 20 minutes

COMMITTEE AGENDA MEMO

SUBJECT: Update on the Sustainable Groundwater Management Act (SGMA)

RECOMMENDED ACTION:

This is an information only item and no action is required.

SUMMARY:

The Sustainable Groundwater Management Act (SGMA) provides the District with various authorities to ensure groundwater sustainability. Per the District's 2016 Groundwater Management Plan for the Santa Clara and Llagas Subbasins (GWMP), the District will evaluate the regulation of pumping and collection of different fee types as potential tools that may be needed to ensure continued sustainability. The Board referred related stakeholder engagement to the Water Conservation and Demand Management Committee (Committee).

The potential regulation of pumping is a complex and controversial topic, and SGMA acknowledges related limitations. Local agencies are not authorized to make a binding determination of the water rights of any person or entity, and must also consider the land-use authority of cities and counties. Staff will present general information on groundwater rights as summarized below.

Staff will also provide an update on public comments received by the California Department of Water Resources (DWR) related to the District's GWMP, which was submitted as an Alternative to a Groundwater Sustainability Plan (GSP).

BACKGROUND:

In 2014, SGMA was enacted as California's first comprehensive, statewide regulatory program for groundwater. SGMA provides Groundwater Sustainability Agencies (GSAs), like the District, with various authorities to ensure groundwater is managed in a sustainable manner. Important for this agenda item, SGMA provides GSAs with various authorities related to the regulation of groundwater extraction by restricting or suspending well production, prohibiting new well construction, imposing well-spacing requirements, and requiring measurement and reporting of groundwater production by well owners. (Water Code §§ 10725.8, 10726.4(a).)

Implementation of the above authorities could impact existing water rights. Water Code § 10726.8(b) provides that, "Nothing in this part shall be construed as authorizing a local agency to make a binding determination of the water rights of any person or entity." While SGMA states that implementation of the statute does not alter water rights, allocating cutbacks on groundwater extractions, for example, will impact a particular user's ability to exercise its groundwater right. As such, significant conflicts could arise in the exercise of a GSA's powers, where water rights priorities are at issue or the equities of a proposed management action are disputed.

Given the intersection between groundwater rights and a GSA's authorities related to the regulation of groundwater extraction, understanding the framework and types of California's groundwater rights law will be important as the District considers whether and how to control pumping under certain circumstances. The following discussion provides a brief overview of California's law on groundwater rights, and is intended to support the Committee's understanding and discussions as District staff moves forward with evaluating SGMA's new authorities.

At the February 23, 2017 Committee meeting, staff reported there were no substantive updates regarding the analysis of new authorities. The preliminary analysis is underway, and staff plans to present related information to the Committee in late summer 2017. Staff provided handouts of three public comment letters submitted to DWR on the District's GWMP by February 20, 2017, the original DWR deadline. On February 21, 2017, DWR announced that the public comment period for Alternatives submitted throughout the state would be extended to April 1, 2017. Staff has since notified the list of interested stakeholders of the revised public comment deadline.

More detailed information on groundwater rights and public comments on the District's GWMP is provided below.

Summary of California Law of Groundwater Rights*

Below is a brief discussion of the California law of groundwater rights. These are general provisions and are not intended to discuss specific water rights issues.

1. Reasonable and Beneficial Use Doctrine

Article 10, section 2 of the California Constitution prohibits the waste of water, and requires reasonable use, method of use and method of diversion for all surface and groundwater rights. The doctrine of reasonable and beneficial use is the basic principle defining California water rights: that holders of water rights must use water reasonably and beneficially.

2. Groundwater Rights

California groundwater law is based almost entirely in case law. Unlike the law governing rights to surface water and true underground streams, there is no comprehensive, statewide permitting scheme governing the extraction or use of groundwater.

Groundwater rights attach to percolating groundwater, which includes all groundwater that does not comprise a subsurface stream or the underflow of a surface stream. The courts have established three categories of groundwater rights with respect to native percolating groundwaters.

Overlying Rights

Overlying groundwater rights are analogous to riparian rights to surface water. Each owner of land that overlies a common groundwater supply has a right to reasonable, beneficial use of that water supply on or in connection with the overlying land. The courts have restricted that right to an amount which is reasonable in light of the competing demands of other overlying users; this is often referred to as a correlative right. The quantification of each overlying user's correlative right depends entirely on the facts and circumstances as they exist in the basin. However, the overlying user's correlative right is generally to a reasonable share of the common groundwater supply.

* Much of the language provided in this summary was derived from *A primer on California Water Rights*, Gary W. Sawyers, Esq., http://aic.ucdavis.edu/events/outlook05/Sawyer_primer.pdf, and *A Summary of the California Law of Surface Water and Groundwater Rights*, Bartkiewicz, Kronick & Shanahan (2006), http://www.norcalwater.org/wp-content/uploads/bks_water_rights.pdf.

There is no priority in time among overlying users. The correlative right belongs to all overlying landowners in common, and each may use only a reasonable share when the water is insufficient to meet the needs of all.

The overlying right may be used for any reasonable, beneficial use. However, water devoted to public uses (for example, water acquired by municipalities and public utilities for distribution to the public) is not an overlying use.

Appropriative Rights

Water users that do not use groundwater on their overlying land are not barred from using groundwater. Such water users include public agencies and owners of non-overlying land. They may extract groundwater, but their rights are analogous to appropriative rights to surface water. Appropriators generally have the right to take the available surplus from a groundwater basin and apply it to beneficial use inside or outside the basin. "Surplus" means available water not needed to provide for the reasonable, beneficial use by the overlying owners and of which the use of will not create an overdraft condition. There is no restriction as to where the water may be used, and no requirement that the appropriator be a landowner. The water may generally be used for private or public uses without restriction, subject to the requirement that the use of the water must be reasonable and beneficial.

Among appropriators, the priority of each appropriator's right is determined by the relative timing of the commencement of use, i.e., first in time is first in right.

Prescriptive Rights

Prescriptive groundwater rights are not acquired by taking surplus or excess water. An appropriative taking of groundwater that is not surplus is wrongful, and may ripen into a prescriptive right when the use is actual, open and notorious, hostile and adverse to the original owner, continuous and uninterrupted for the statutory period of five years, and under the claim of right. Prescriptive rights do not begin to accrue until a condition of overdraft begins. Therefore, it is first necessary to determine when a condition of surplus ends and overdraft begins.

Once a groundwater basin reaches a condition of overdraft, no new appropriative uses may be lawfully made. Typically, however, appropriators continue extraction activities unless and until demand is made and/or suit is brought. If an appropriator continues pumping from an overdrafted basin for the prescriptive period after the other users from the basin have notice of the overdraft condition, then that appropriator may obtain a prescriptive right good as against any other private user.

Prescription generally may not occur as against public entities and public utilities.

An adjudication or court proceeding is necessary to confirm the existence and scope of prescriptive rights.

Adjudicated Water Rights

Many groundwater rights in California are not quantified, but are simply claimed and/or exercised without objection by other parties. However, when competing demands for a groundwater basin's water supply become too great, formal adjudications are sometimes commenced by one or more of the competing groundwater users. The authority to adjudicate a groundwater basin exists in State courts, and in limited circumstances, with the State Water Resources Control Board. Adjudications typically take years or even decades to complete because of the complex legal and factual issues involved. Courts often retain continuing jurisdiction over the implementation of the adjudication order.

Public Comments on the District's GWMP

To meet SGMA planning requirements and DWR Emergency GSP Regulations, the District prepared the GWMP as an Alternative to a GSP. The Board adopted the 2016 GWMP on November 22, 2016 after a public hearing. The District received several comment letters related to the public hearing, which were included with related District responses as an appendix to the GWMP. The District submitted the GWMP to DWR on December 21, 2016, beginning a public comment period during which any interested person could submit comments to DWR at <http://sgma.water.ca.gov/portal/alternative/all>. The DWR comment period for all Alternatives was originally 60 days, with the District's public comment period scheduled to end on February 20, 2017. Three comment letters were posted to the DWR web page by that date. However, on February 21, 2017, DWR extended the comment period for all Alternatives, including the District's GWMP, to April 1, 2017.

Comments from San Jose Water Company (SJWC), Stanford University, and the National Marine Fisheries Service (NMFS) submitted to DWR were handed out at the February 23, 2017 Committee meeting. The comments received from SJWC and Stanford University were similar to comments provided by those agencies during the District's GWMP public hearing. These include assertions that the GWMP is not an acceptable Alternative under SGMA, that the GWMP is deficient in demonstrating functional equivalence to a GSP, and that water rights and SGMA authorities are not adequately addressed. The District respectfully disagrees with these comments and believes that the GWMP adequately demonstrates functional equivalence to a GSP and the intent of SGMA. Comments received from NMFS relate to surface water flows in the Santa Clara Subbasin and the protection of instream aquatic habitat. Several comments relate to the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE). The District Board has recently emphasized its commitment to resolving FAHCE issues and implementing related operational changes as quickly as possible.

Although no formal deadline has been announced, DWR staff prefers that agencies that submitted Alternatives post any related response to public comments on the DWR website by April 1, 2017. Staff is preparing related District responses, and will provide those as handouts to the Committee on March 24, 2017 if available.

ATTACHMENT(S):

None



| | |
|-----------------------|--|
| Committee: | Water Conservation and Demand Management |
| Meeting Date: | 03/24/17 |
| Agenda Item No.: | 4.3 |
| Unclassified Manager: | Garth Hall |
| Email: | ghall@valleywater.org |
| Est. Staff Time | 10 Minutes |

COMMITTEE AGENDA MEMO

SUBJECT: Presentation on Conservation and Demand Management Elements of the Draft 2017 Water Master Plan

RECOMMENDED ACTION:

This is an information only item and no action is required.

SUMMARY:

The Committee has requested that staff present information on water conservation and demand management elements of the 2017 Water Supply Master Plan (WSMP) to the Committee prior to presenting the information to the full Board. Staff is planning to present portfolio analysis results to the Board in April 2017. This item provides highlights of the information that is planned to be presented to the full Board in April 2017 and the water conservation and demand management elements that are being considered as part of all the portfolios being evaluated during WSMP development.

BACKGROUND:

Staff presented an update on and the Board discussed Water Supply Master Plan development on January 31, 2017. Discussion topics included an updated water supply outlook, results of the vulnerability and risk analysis, costs and yields of different water supply projects and programs, costs associated with providing different levels of service, and some preliminary portfolios of projects, or water supply strategies. The preliminary portfolios focused on storage alternatives. Staff is currently evaluating the portfolios with the following themes:

- Modular – Smaller projects and projects that can be phased in
- Low Risk – Projects that have more certainty for meeting yield, schedule, and cost assumptions
- Local Control – Local projects
- Low Cost – Lowest lifecycle cost projects
- Operational Flexibility – Pipeline and storage projects
- Climate Change Adaptation – Projects that provide dry year supplies and stormwater projects
- Local Storage – Local groundwater and surface water storage projects
- Statewide Storage – Out-of-County groundwater and surface water storage projects
- Securing Imports – California WaterFix

Each of the above portfolios includes a group of “no regrets” water conservation and demand management oriented projects and programs. This “no regrets” group consists of the model ordinance for new development,

gray water program expansion, leak repair incentives, regional stormwater capture projects, rain gardens, on-farm recharge, and advanced metering infrastructure (AMI). This group of projects is estimated to provide about 10,000 acre-feet per year in total of additional water conservation savings and groundwater recharge by 2040.

A summary of portfolio performance will be provided to the Committee at the meeting.

ATTACHMENT(S):

None



Committee: Water Conservation and Demand Management
Meeting Date: 03/24/17
Agenda Item No.: 4.4
Unclassified Manager: Garth Hall
Email: ghall@valleywater.org
Est. Staff Time: 10 Minutes

COMMITTEE AGENDA MEMO

SUBJECT: Update on 2017 Water Supply Conditions

RECOMMENDED ACTION:

This is an information only item and no action is required.

SUMMARY:

Current Hydrologic and Groundwater Conditions

The 2016/2017 Water Year, beginning October 2016, is much improved compared to the past five years. Northern California and Santa Clara County precipitation and reservoir storage levels are at or above average for this time of year.

- Overall northern California water supply conditions for the 2016/17 water year, including snow water equivalent measurements and reservoir storage, are well above normal for this time of year. According to the February 28, 2017, U.S. Drought Monitor for California, almost 75 percent of the state is not in drought.
- Locally, conditions are also favorable, especially in light of being in the fifth year of drought. Water use reductions achieved by retailers and the community, and increased groundwater recharge in 2016, have resulted in significantly improved groundwater storage conditions. Local (San Jose) rainfall for the 2017 water year, which began October 15, 2016, is 14.1 inches or 137 percent of average to date. As of March 1, 2017, local reservoir storage is 149 percent of the 20-year average for this time of year.
- Local and imported supplies were less constrained in 2016 than in the past few years, and the district took advantage of the improved water supply conditions by increasing recharge operations compared 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. March 1, 2017, groundwater elevations in three key index wells are above or near pre-drought levels. Estimated end-of-year 2017 storage county-wide is within Stage 1 (Normal) of the Water Shortage Contingency Plan.
- Also, current storage in Semitropic is 193,892 AF, or 55 percent of capacity. The maximum capacity is 350,000 AF, and the five-year average is 257,775 AF.
- Current State Water Project (SWP) allocations are 60 percent as of March 1, 2017, (last year the allocation at this time was 45 percent and was subsequently upgraded to 60 percent). These allocations may be revised. Central Valley Project (CVP) allocations are expected to be announced in late-March.

BACKGROUND:

On January 24, 2017, staff provided the Board an update on current water supply conditions, including end-of-year 2016 groundwater storage and several scenarios for 2017. The Board directed staff to return on January 31, 2017 with a resolution that included a call for a 20 percent reduction in water use, that continues the 3 day per week watering schedule, that references the state's water waste prohibitions, and that removes language recommending the cities, water retailers, and the county implement mandatory measures to reach the target. Staff continues to monitor local and state-wide water supply conditions and plans to return to the Board in May with an update.

ATTACHMENT(S):

Attachment 1: PowerPoint Presentation



Update on 2017 Water Supply Conditions

WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE MEETING

March 24, 2017



CONDITIONS TRENDING UP

By the numbers

60% - SWP Allocation (60 TAF)

TBD - CVP M&I Allocation

54% - Semitropic Storage (~194 TAF)

14.3 inches – San Jose rainfall (equal to full average year of rainfall)

149% - Local Reservoir Storage – compared to average to date

6,400 AF – Total Managed Recharge (Jan to Feb)

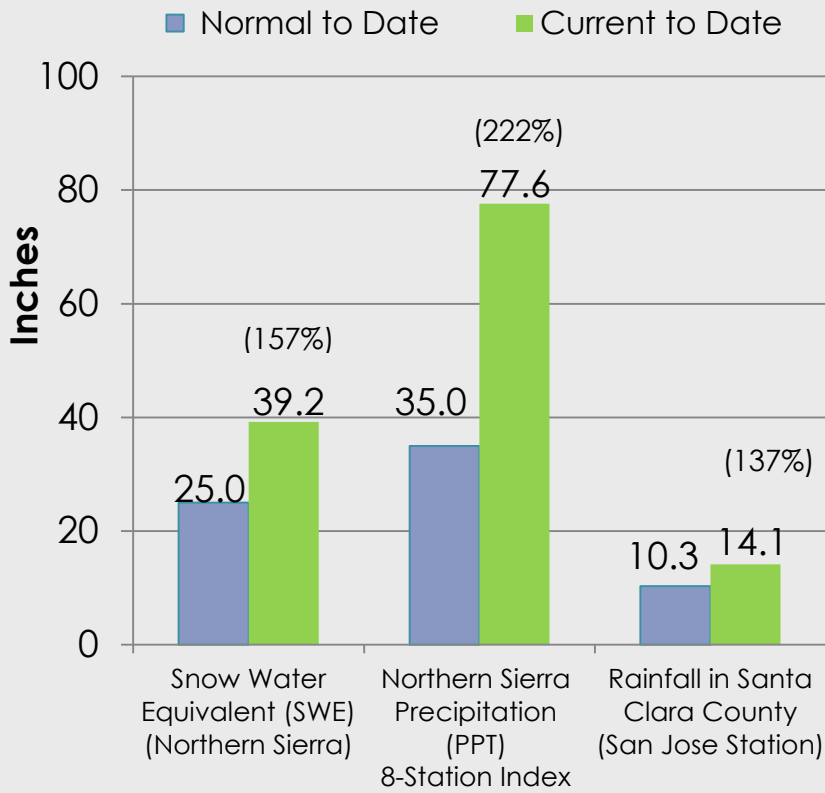
70 TAF/Yr – Long Term Water Conservation Savings

2016/17 Hydrologic and Reservoir Conditions

HYDROLOGIC CONDITIONS ABOVE AVERAGE

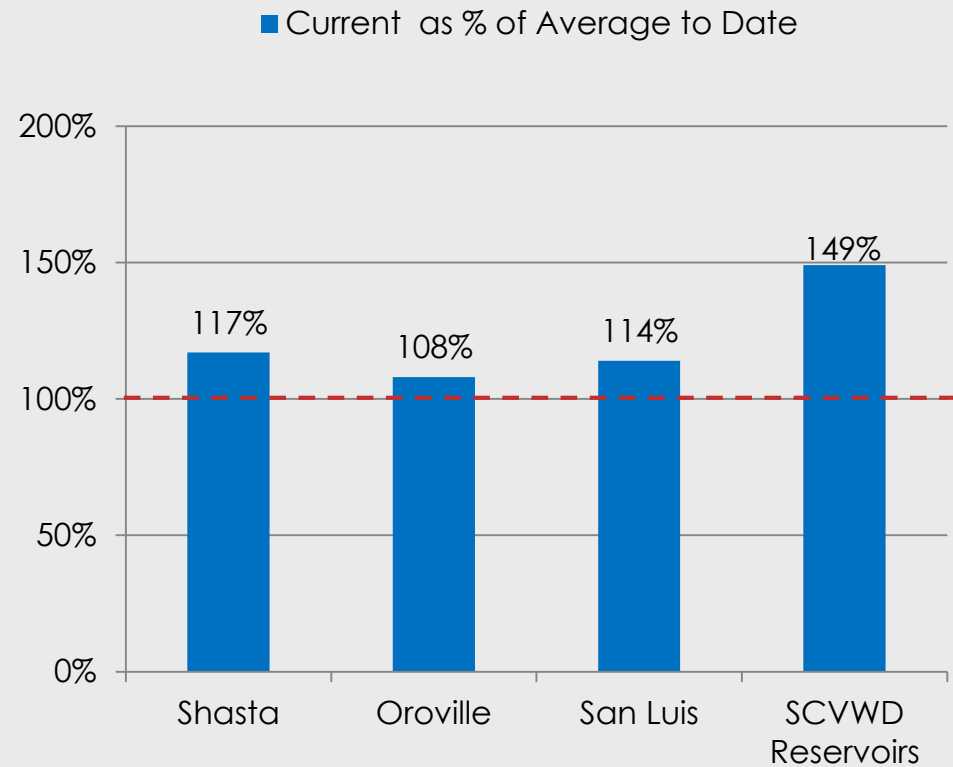
Hydrology

As of March 1, 2017



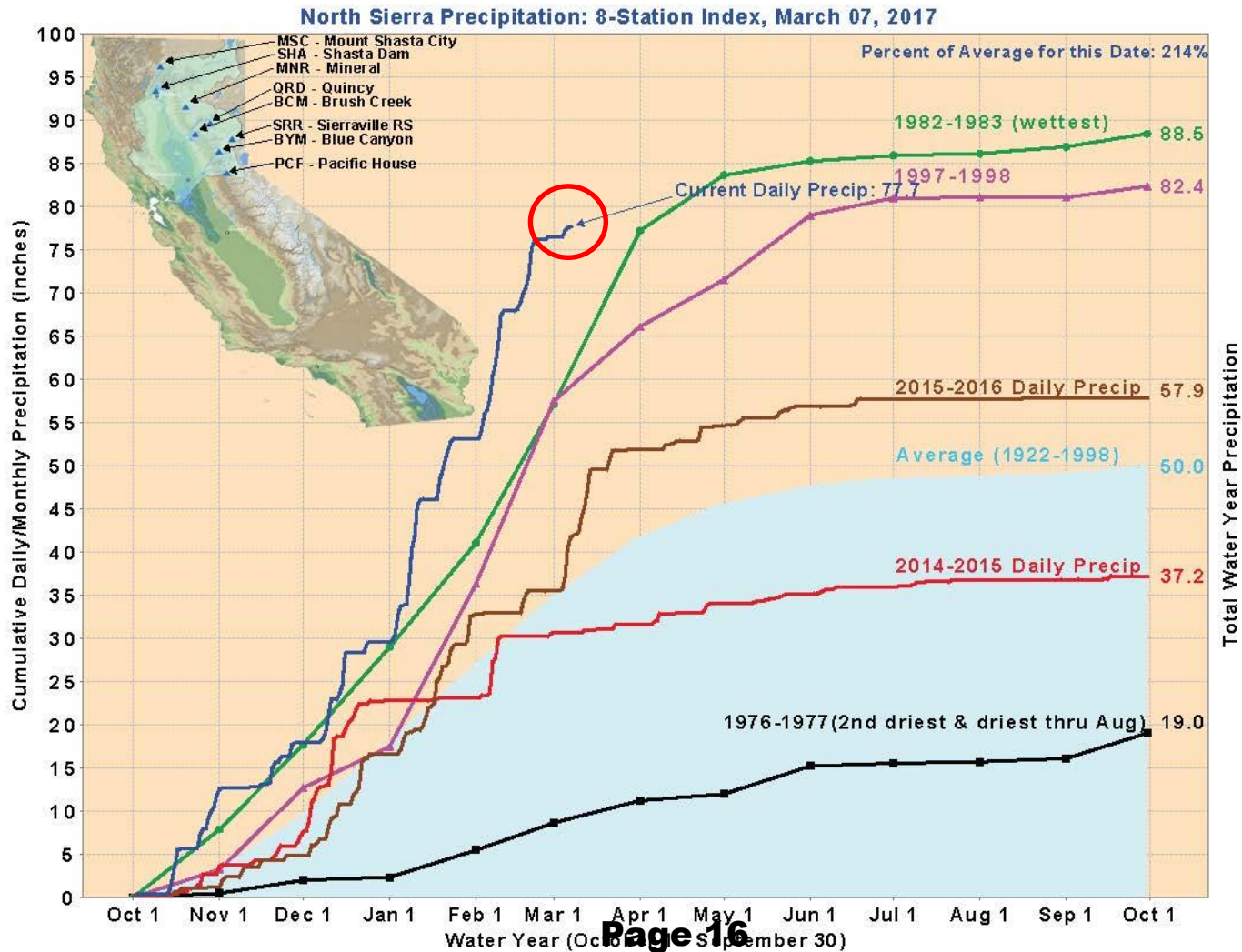
Reservoir Storage

As of March 1, 2017



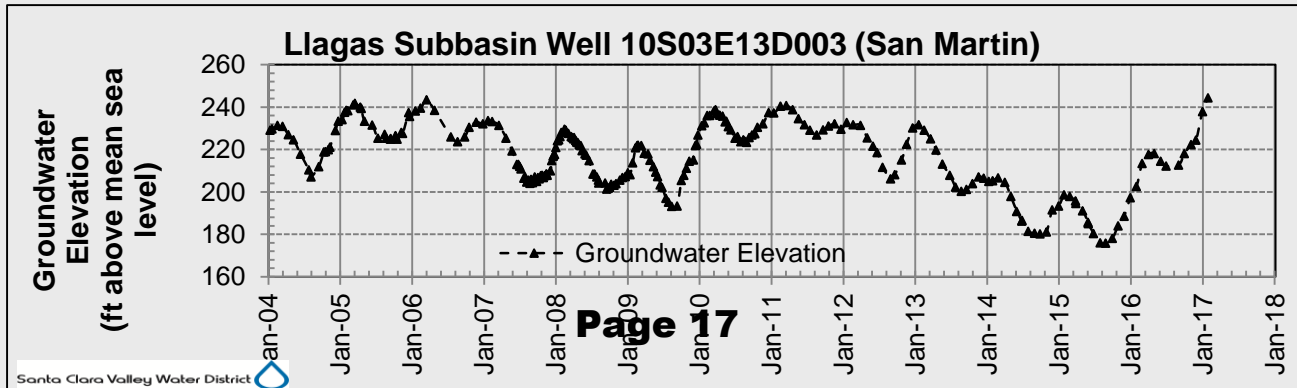
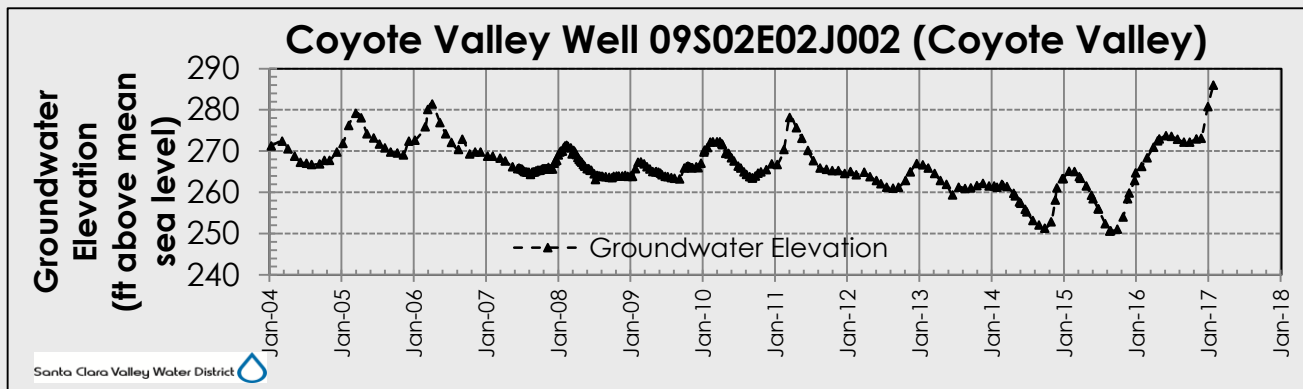
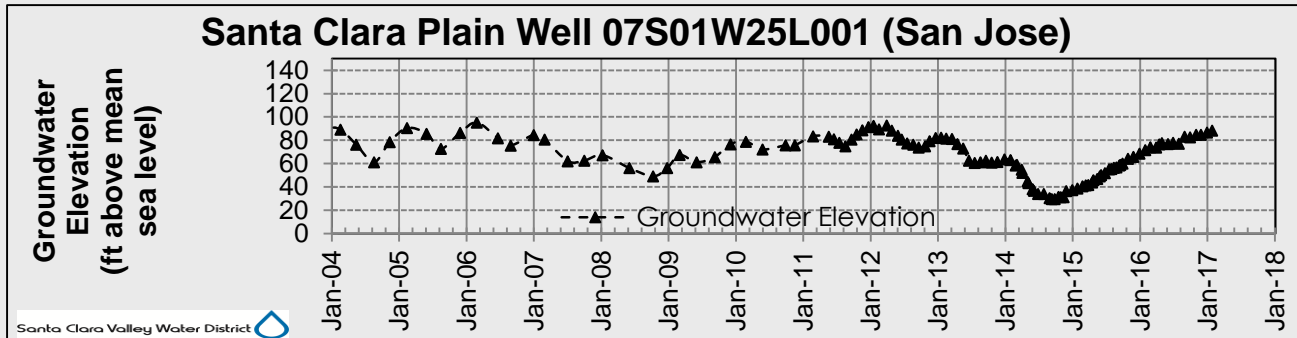
North Sierra Precipitation to Date

2016/2017 NORTH SIERRA PRECIP TO DATE ABOVE HISTORIC TRENDS



Groundwater Conditions March 1, 2017

2017 Groundwater Elevations are Returning to Pre-Drought Levels



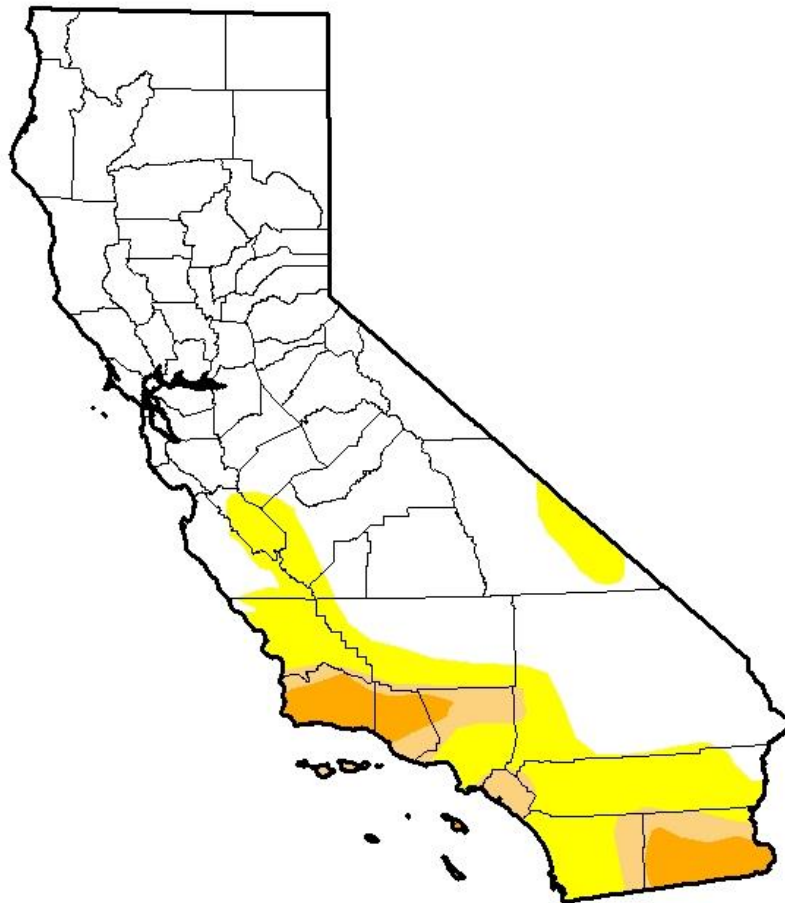
Drought Status Removed for Most of CA

U.S. Drought Monitor California

February 28, 2017

(Released Thursday, Mar. 2, 2017)

Valid 7 a.m. EST



Drought Conditions (Percent Area)

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|--|-------|--------|-------|-------|-------|-------|
| Current | 74.49 | 25.51 | 8.73 | 4.08 | 0.00 | 0.00 |
| Last Week <i>2/21/2017</i> | 61.66 | 38.34 | 16.87 | 4.19 | 0.00 | 0.00 |
| 3 Months Ago <i>11/29/2016</i> | 12.03 | 87.97 | 73.04 | 60.27 | 42.80 | 21.04 |
| Start of Calendar Year <i>1/3/2017</i> | 18.07 | 81.93 | 67.61 | 54.02 | 38.17 | 18.31 |
| Start of Water Year <i>9/27/2016</i> | 0.00 | 100.00 | 83.59 | 62.27 | 42.80 | 21.04 |
| One Year Ago <i>3/1/2016</i> | 0.43 | 99.57 | 95.13 | 82.66 | 60.86 | 38.48 |

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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NCEI/NOAA





Committee: Water Conservation and Demand Management
Meeting Date: 03/24/17
Agenda Item No.: 4.5
Unclassified Manager: Michele King
Email: mking@valleywater.org
Est. Staff Time: 5 Minutes

COMMITTEE AGENDA MEMO

SUBJECT: Review of Water Conservation and Demand Management Committee Work Plan, any Outcomes of Board Action or Committee Requests and Schedule the next Committee Meeting

RECOMMENDED ACTION:

Review the Committee work plan to guide the Committee's discussions regarding policy alternatives and implications for Board deliberation.

SUMMARY:

The attached Work Plan outlines the topics for discussion to be able to prepare policy alternatives and implications for Board deliberation. The work plan is agendized at each meeting as accomplishments are updated and to review additional work plan assignments by the Board.

BACKGROUND:

Governance Process Policy-8:

The District Act provides for the creation of advisory boards, committees, or commissions by resolution to serve at the pleasure of the Board.

The Board Ad Hoc Committee is comprised of less than a quorum of the Board and/or external members having a limited term, to accomplish a specific task, is established in accordance with the Board Ad Hoc Committee procedure (Procedure No. W723S01), and will be used sparingly. Annually, the purpose of an established Ad Hoc Committee will be reviewed to determine its relevance.

In keeping with the Board's broader focus, Board Committees will not direct the implementation of District programs and projects, other than to receive information and provide advice and comment.

ATTACHMENT(S):

Attachment 1: Water Conservation and Demand Management Committee 2017 Work Plan

| ITEM # | WORK PLAN ITEM | MEETING | ACTION/DISCUSSION OR INFORMATION ONLY | ACCOMPLISHED OUTCOMES |
|--------|---|-------------------------------|---------------------------------------|--|
| 1 | Update on Golf Course Coalition Proposal | 1-25-17 2-23-17 3-24-17 | Discussion/Action Item | <p>Accomplished January 25, 2017: The Committee received an update on Golf Course Coalition Proposal and took no action.</p> <p>Accomplished February 23, 2017: The Committee received an update on Golf Course Coalition Proposal and took no action.</p> |
| 2 | Receive Information on Conservation Measure Connections/Obligations addressed in the CA Waterfix | 1-25-17 | Discussion/Action Item | <p>Accomplished January 25, 2017: The Committee received information on conservation measure connections/Obligations addressed in the CA Waterfix and took no action.</p> |
| 3 | Consideration of potential approaches for receiving input from key stakeholders on development of plans, where necessary, for implementation of authorities available to the District under the Sustainable Groundwater Management Act (SGMA) | 1-25-17 | Discussion/Action Item | <p>Accomplished January 25, 2017: The Committee considered potential approaches for receiving input from key stakeholders on development of plans, where necessary, for implementation of authorities available to the District under the Sustainable Groundwater Management Act (SGMA) and took no action.</p> |
| 4 | Review of 2017 Water Conservation Ad Hoc Committee Work Plan and the Outcomes of Board Action of Committee Requests | 1-25-17 2-23-17 3-24-17 | Discussion/Action Item | <p>Accomplished January 25, 2017: The Committee reviewed their work plan for 2017 and added Safe, Clean Water Conservation Grant Research Results to their work plan. Joined items #11, 12 and 13 to #4 Water Master Plan and correct #14f to read hold conversations.</p> <p>Accomplished February 23, 2017: The Committee reviewed their work plan for 2017 and removed item #12 since all of its elements are included in work plan items 1 - 11.</p> |

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

| ITEM # | WORK PLAN ITEM | MEETING | ACTION/DISCUSSION OR INFORMATION ONLY | ACCOMPLISHED OUTCOMES |
|--------|--|----------------------------|---------------------------------------|---|
| 5 | <p>Presentation on Conservation and Demand Management Elements of the Draft 2017 Water Supply Master Plan Include in the plan:</p> <p>Water Use Efficiency Standards and Requirements</p> <ul style="list-style-type: none"> • Green Business Program • LEED certification • CalGreen • Ordinances <p>Information on new technology related to water conservation, including:</p> <ul style="list-style-type: none"> • Smart metering (AMI), • Leak detection/repair • Others? <p>If needed, invite experts to present to the Committee</p> <p>Should District invest/get involved in development of new local water, i.e.</p> <ul style="list-style-type: none"> • Rainwater harvesting • On-site storm water retention • Infiltration of high quality storm water • Gray Water <p><i>Committee to review the issue question, and include working with cities on building codes and future planning, offering incentives, and identifying District role.</i></p> | <p>1-25-17 3-24-17</p> | <p>Discussion/Action Item</p> | <p>Accomplished January 25, 2017: The Committee received a presentation on conservation and demand management elements of the Draft 2017 Water Master Plan and took no action.</p> |
| 6 | <p>Receive an Update on the District's Outreach Campaign (HOAs, Neighborhood Groups, Developers, Planning Agencies</p> | <p>1-25-17</p> | <p>Discussion/Action Item</p> | <p>Accomplished January 25, 2017: The Committee received an update on the District's Outreach Campaign (HOAs, Neighborhood Groups, Developers, Planning Agencies and took no action.</p> |

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

2017 Work Plan: Water Conservation and Demand Management Committee

Update: March 2017

| ITEM # | WORK PLAN ITEM | MEETING | ACTION/DISCUSSION OR INFORMATION ONLY | ACCOMPLISHED OUTCOMES |
|--------|--|--------------------|---------------------------------------|--|
| 7 | Update on State Water Resources Control Board (SWRCB) (Emergency Regulation; Making Water Conservation a California Way of Life) | 2-23-17 | Discussion/Action Item | Accomplished February 23, 2017: The Committee received an update on State Water Resources Control Board (SWRCB) (Emergency Regulation; Making Water Conservation a California Way of Life) and took no action. |
| 8 | Update on the Evaluation of New Sustainable Groundwater Management Act (SGMA) Authorities | 2-23-17 3-24-17 | Discussion/Action Item | Accomplished February 23, 2017: The Committee received an update on the Evaluation of New Sustainable Groundwater Management Act (SGMA) Authorities and took no action. |
| 9 | Pending Legislation Relating to Water Conservation and Demand Management | TBD | Discussion/Action Item | |
| 10 | Water Budget-based rates | TBD | Discussion/Action Item | |
| 11 | Upcoming Board Agenda Item related to Water Conservation and Demand Management | TBD | Discussion/Action Item | |

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

Attachment 1

Page 3 of 3

Handouts

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**2017 Water Supply Master Plan
Project and Program Descriptions (as of March 23, 2017)**

| Project | Description | Average Annual Yield (AFY)¹ | District's Lifecycle Cost (2016\$) |
|----------------------------------|--|---|---|
| Agricultural Land Recharge | Constructs a recharge pond on a South County agricultural parcel that would receive water either from roadside ditches or adjacent hillslopes. | 200 | \$20 million |
| Advanced Metering Infrastructure | A cost share program with retailers to replace current meters with AMI. AMI would alert customers of leaks, as well as provide real-time water use data. Water savings assumes the leaks would be fixed once detected. | 4,000 | \$30 million |
| Anderson Reservoir Expansion | Increase reservoir storage by 100,00 AF to about 190,000 AF. | 10,000 | \$2.0 billion |
| Butterfield Recharge | Extends the Madrone Pipeline from Madrone Channel to Morgan Hill's Butterfield Channel and Pond. | 3,000 | \$30 million |
| Calero Reservoir Expansion | Expands Calero Reservoir storage by about 14,000 AF to 24,000 AF. | 3,000 | \$510 million |
| California WaterFix | Constructs tunnels to convey water from north of the Delta to the south of Delta pumps to minimize impacts to fisheries, provide conveyance during a Delta outage, and adapt to climate change. Secures existing supplies. | Up to 30,000 ² | \$1.8 billion |
| Church Avenue Pipeline | Diverts water from the Santa Clara Conduit to the Church Avenue Ponds | 1,000 | \$50 million |
| Gray Water Expansion | The District would provide a rebate to incentivize the installation of whole-house graywater systems that reuses laundry, shower, and sink water. The rebate would be for residential sites and certain applicable commercial sites. | 100 | \$2 million |
| Groundwater Banking | Provides 50,000 AF of banking capacity for excess the CVP and SWP contract water. Sends excess water to a groundwater bank south of the Delta during wet years and times of surplus for use during dry years and times of need. | 500 | \$90 million |
| Leak Repair Incentive | Incentivize homeowners to repair leaks. | 300 | \$2 million |

¹ The average annual yield of many projects will depend on the other projects with which they are combined and the scenario being analyzed. For example, groundwater banking yields would likely be higher in portfolios that include wet year supplies. Similarly, they would be lower in scenarios where demands exceed supplies and excess water is unavailable for banking.

² The California WaterFix secures existing supplies in the scenario with more restrictive Delta water supply operations. Delta-conveyed supplies with the California WaterFix are about the same as deliveries under current operations. Without California WaterFix and with more restrictive Delta water supply operations, Delta-conveyed supplies would be about 30,000 AFY less on average.

HANDOUT: Agenda Item 4.3

| Project | Description | Average Annual Yield (AFY) ¹ | District's Lifecycle Cost (2016\$) |
|-----------------------------|--|---|------------------------------------|
| Local Land Fallowing | Would pay growers not to farm in critical dry years. | 1,000 | \$90 million |
| Los Vaqueros Reservoir | Expands the off-stream reservoir by 110,000 AF and constructs a new pipeline connecting the reservoir to the South Bay Aqueduct. Could be constructed in phases. | 2,000 | \$340 million |
| Model Ordinance | Municipalities would adopt an ordinance that promotes enhanced water efficiency standards and develops alternate water supply sources in new and retrofitted developments. Potential components include submetering multi-family residences, onsite water reuse (rainwater, graywater, black water), and point-of use hot water heaters. | 5,000 | \$1.4 million |
| Morgan Hill Recycled Water | Constructs a 2.25 MGD scalping plant in Morgan Hill. Would need to replace a lower cost recycled water project in Gilroy due to capacity constraints on the system. | 3,000 | \$220 million |
| Pacheco Reservoir Expansion | Expand Pacheco Reservoir to 130,000 AF, with 100,000 AF of storage for the District. Assumes District store CVP supplies in the reservoir. Helps address San Luis Reservoir low-point issues. This project would be in collaboration with Pacheco Pass Water District. | 6,000 | \$1.5 billion |
| Potable Reuse-6K | Constructs additional potable reuse facilities. The 6K project is 6,000 AFY of groundwater injection capacity. The 11K project includes the 6K project and 5,000 AFY of additional groundwater injection capacity. The 15K project includes the 6K and 11K projects and 4,200 AFY of groundwater recharge capacity at/near Ford Ponds. | 4,000 | \$500 million |
| Potable Reuse – 11K | | 7,000 | \$990 million |
| Potable Reuse – 15K | | 10,000 | \$1.2 billion |
| Regional Desalination | Partnership with other Bay Area agencies to build a Bay Delta desalination plant in Contra Costa County. District would receive 5 MGD of water in critical dry years. | 1,000 | \$90 million |
| San Pedro Ponds | Retires the septic systems around the San Pedro Ponds and extends the City of Morgan Hill sewer system to these homes so the District can operate the groundwater recharge facility without high groundwater constraints. | 1,000 | \$40 million |
| Sites Reservoir | A proposed off-stream reservoir (up to 1.8 MAF) north of the Delta that would collect winter flood flows from the Sacramento River to increase water deliveries and provide in-stream flows to benefit the Delta ecosystem. Assumes District's share is 24,000 AF of storage. | 16,000 | \$230 million |
| Stormwater – Saratoga 1 | Stormwater infiltration on a parcel in Saratoga. Assumes 5 acres of ponds. Currently zoned as ag land; assumes easement rather than land purchase. Adjacent to a school. About 0.6 miles from the Stevens Creek Pipeline | 100 | \$15 million |

HANDOUT: Agenda Item 4.3

| Project | Description | Average Annual Yield (AFY) ¹ | District's Lifecycle Cost (2016\$) |
|--------------------------|---|---|------------------------------------|
| Stormwater – Saratoga 2 | Stormwater infiltration on a parcel in Saratoga. Assumes 5 acres of ponds. Currently zoned as ag land; assumes land purchase. About 0.6 miles from the Stevens Creek Pipeline. | 200 | \$60 million |
| Stormwater - Snell | Stormwater infiltration at Martial-Cottle Park (Snell and Chynoweth) in San Jose. Assumes 5 acres of ponds. Potential partnership with the City of San Jose, County Parks, and State Parks. Adjacent to Canoas Creek. | 900 | \$10 million |
| Stormwater-Rain Barrels | Provides rebates for the purchase of a rain barrels. | 10 | \$1 million |
| Stormwater-Rain Gardens | The District would provide a rebate to incentivize the construction of rain gardens in residential and commercial landscapes. | 300 | \$20 million |
| Transfers | Provides an additional 12,000 AF of SWP transfer water during critical dry years. Can also include long-term option agreements. | 2,000 | \$250 million |
| Uvas Pipeline | Captures excess water (e.g., water that would spill) from Uvas Reservoir and diverts the water to Church Ponds and a 25 acre-foot pond by Highland Avenue. The new pond would be adjacent to and connected by a pipe to West Branch Llagas Creek. | 400 | \$120 million |
| Uvas Reservoir Expansion | Expands Uvas Reservoir by about 5,100 AF to 15,000 AF. | 600 | \$450 million |
| Water Rights Purchase | The District would purchase 20,000 AF of SWP Table A contract supply from other water supply agencies. | 12,000 | \$760 million |

Other Projects and Programs Previously Considered for the Water Supply Master Plan

| Project | Discussion |
|------------------------------|--|
| Conservation Rate Structures | Many retailers implement conservation rate structures. Given recent court rulings on rate structure, retailers are reluctant to add new conservation rate structures at this time. |
| Del Valle Reoperations | <p>This project, as currently envisioned, would allow for more storage in Lake Del Valle, a SWP facility in Del Valle Regional Park that is operated by East Bay Regional Park District. The benefits of the additional storage are primarily related to operational flexibility and water quality. The project would not increase long-term water supply yields or drought year yields.</p> <p>Staff is continuing to evaluate Del Valle reoperations in partnership with ACWD and Zone 7. If long-term water supply benefits are identified, staff will evaluate it as part of the Water Supply Master Plan.</p> |

HANDOUT: Agenda Item 4.3

| | |
|---|---|
| Retailer System Leak Detection/Repair | Recent legislation requires retailers to complete annual water loss audits. The State is establishing water loss standards. Staff will reconsider this alternative after the standards are developed. |
| San Francisco Public Utilities Commission (SFPUC) Purchases | Increasing SFPUC water deliveries to Santa Clara County in an on-going topic that is being evaluated through SFPUC's planning processes, the Bay Area Regional Reliability project, and potable reuse feasibility studies. The results of these efforts will be evaluated through the Water Supply Master Plan update and/or subsequent annual reviews. |
| Shallow Groundwater Reuse | A feasibility study for the recovery and beneficial use of shallow groundwater was completed in 2009. Although potential sites for shallow groundwater reuse were identified, staff has identified several concerns. These concerns include water quality, sustainable yields, and lack of infrastructure for convey the water to reuse areas. In addition, the reuse sites are in areas where recycled water is already delivered for non-potable use. |
| Shasta Reservoir Expansion | A Feasibility Study and EIS have been completed for a Shasta Reservoir Expansion. USBR concluded the project is technically feasible, but that non-federal partners would need to pay for project implementation. State law prohibits Prop 1 storage funding for the project and restricts funding for any studies. Staff will continue to monitor activity related to Shasta Reservoir Expansion. |
| Temperance Flat Reservoir | Temperance Flat Reservoir would be located upstream of Friant Dam on the San Joaquin River. Staff's current analysis is that water supply benefits to the District from the project would be low, especially with current Delta conveyance and pumping and the project's south of Delta location. The potential benefits to the District of Sites Reservoir seem much higher. |

| Projects in Strategy/Portfolio | Modular | Low Risk (Yields, Costs, Schedule Firm) | Local Control | Low Cost | Climate Change (Operational Flexibility) | Climate Change (Dry Year Supplies) | Local Storage | Statewide Storage |
|--------------------------------|---------|---|---------------|----------|--|------------------------------------|---------------|-------------------|
| Model Ordinance | ● | ● | ● | ● | ● | ● | ● | ● |
| Gray Water Expansion | ● | ● | ● | ● | ● | ● | ● | ● |
| Leak Repair Incentive | ● | ● | ● | ● | ● | ● | ● | ● |
| Stormwater - Saratoga 1 | ● | ● | ● | ● | ● | ● | ● | ● |
| Stormwater - San Jose | ● | ● | ● | ● | ● | ● | ● | ● |
| Stormwater - Rain Gardens | ● | ● | ● | ● | ● | ● | ● | ● |
| Ag Land Recharge | ● | ● | ● | ● | ● | ● | ● | ● |
| AMI | ● | ● | ● | ● | ● | ● | ● | ● |
| Butterfield Recharge | ● | ● | ● | ● | ● | | ● | |
| San Pedro Ponds | | | | | | | | |
| Church Avenue Pipeline | | | | | ● | | | |
| Stormwater - Rain Barrels | ● | ● | ● | ● | | | | |
| Stormwater - Saratoga 2 | ● | | ● | ● | | | | |
| Regional Desal | | | | ● | | | | |
| Groundwater Banking | ● | ● | | ● | ● | ● | | ● |
| Local Land Fallowing | | | ● | | | | | |
| Uvas Pipeline | | | ● | ● | ● | | ● | |
| Morgan Hill Recycled Water | | | | | | | | |
| Sites Reservoir | | | | ● | | | | ● |
| Transfers | ● | ● | | | ● | ● | | |
| Los Vaqueros | | ● | | | ● | ● | | |
| Uvas Reservoir Expansion | | | | | | | ● | |
| Potable Reuse - 6K | ● | ● | | | | | | |
| Calero Expansion | | | | | ● | | ● | |
| Water Rights Purchase | ● | | | | | | | |
| Potable Reuse - 11K | | | | | | ● | | |
| Potable Reuse - 15K | | | ● | | | | | |
| Pacheco 130K | | | ● | | ● | | ● | |
| California WaterFix | | | | | | | | |
| Anderson | | | | | | | ● | |

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| Project | Modular | Low Risk | Local Control | Low Cost | Climate Change (Operational Flexibility) | Climate Change (Dry Year Supplies) | Local Storage | Statewide Storage | Secure Imported Supplies |
|----------------------------|---------|----------|---------------|----------|--|------------------------------------|---------------|-------------------|--------------------------|
| Model Ordinance | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Gray Water Expansion | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Leak Repair Incentive | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Stormwater - Saratoga 1 | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Stormwater - San Jose | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Stormwater - Rain Gardens | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Ag Land Recharge | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| AMI | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Butterfield Recharge | ● | ● | ● | ● | ● | | ● | | |
| San Pedro Ponds | | | | | | | | | |
| Church Avenue Pipeline | | | | | ● | | | | |
| Stormwater - Rain Barrels | ● | ● | ● | ● | | | | | |
| Stormwater - Saratoga 2 | ● | | ● | ● | | | | | |
| Regional Desal | | | | ● | | ● | | | |
| Groundwater Banking | ● | ● | | ● | ● | ● | | ● | |
| Local Land Fallowing | | | | | | | | | |
| Uvas Pipeline | | | ● | ● | ● | | ● | | |
| Morgan Hill Recycled Water | | | | | | | | | |
| Sites Reservoir | | | | ● | | | | ● | |
| Transfers | ● | ● | | | | ● | | | |
| SFPUC Purchases | | | | | | | | | |
| Shallow Groundwater Reuse | | | | | | | | | |
| Los Vaqueros | | ● | | | ● | ● | | | |
| Uvas Reservoir Expansion | | | | | | | ● | | |
| Potable Reuse - 6K | | | | | | | | | |
| Calero Expansion | | | | | ● | | ● | | |
| Water Rights Purchase | ● | ● | | | | | | | |
| Potable Reuse - 11K | | | | | | | | | |
| Potable Reuse - 15K | | | ● | | | ● | | | |
| Pacheco 130K | | | ● | | ● | | ● | | |
| California WaterFix | | | | | ● | | | | ● |
| Anderson | | | | | | | ● | | |