

October 17, 2018

## **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 J. Camacho, Chief Executive Officer  
Nina Hawk, Chief Operating Officer, Water Utility  
Rick Callender, Chief of External Affairs  
Stanly Yamamoto, District Counsel  
Garth Hall, Deputy Operating Officer, Water Supply Division  
Rachael Gibson, Deputy Administrative Officer, Office of Government Relations  
Bart Broome, Assistant Officer, Office of Government Relations  
Antonio Alfaro, Government Relations Advocate, 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  
Tracy Hemmeter, Senior Project Manager  
Metra Richert, Senior Water Resources Specialist

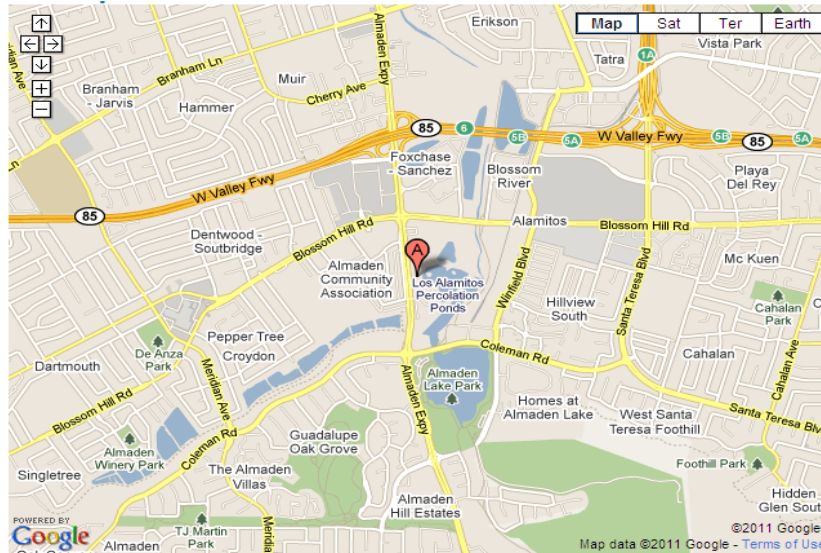
The regular meeting of the Water Conservation and Demand Management Committee is scheduled to be held on **Wednesday, October 31, 2018, at 9:00 a.m.** in the Headquarters Building Boardroom, located at the Santa Clara Valley Water District, 5700 Almaden Expressway, San Jose, California.

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



# **Santa Clara Valley Water District Water Conservation and Demand Management Meeting**

**HQ Boardroom  
5700 Almaden Expressway  
San Jose CA 95118**

## **REGULAR MEETING AGENDA**

**Wednesday, October 31, 2018  
9:00 AM**

**District Mission: Provide Silicon Valley safe, clean water for a healthy life, environment and economy.**

All public records relating to an 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 Office of the Clerk of the Board at the Santa Clara Valley Water District Headquarters Building, 5700 Almaden Expressway, San Jose, CA 95118, at the same time that the public records are distributed or made available to the legislative body. Santa Clara Valley Water District will make reasonable efforts to accommodate persons with disabilities wishing to attend Board of Directors' meeting. Please advise the Clerk of the Board Office of any special needs by calling (408) 265-2600.

**Note: The finalized Board Agenda, exception items and supplemental items will be posted prior to the meeting in accordance with the Brown Act.**

**Santa Clara Valley Water District**  
**Water Conservation and Demand Management**  
**REGULAR MEETING**  
**AGENDA**

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Wednesday, October 31, 2018

9:00 AM

HQ Boardroom

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**1. CALL TO ORDER:**

1.1. Roll Call.

**2. Time Open for Public Comment on any Item not on the Agenda.**

*Notice to the public: This item is reserved for persons desiring to address the Committee on any matter not on this agenda. Members of the public who wish to address the Committee on any item not listed on the agenda should complete a Speaker Form and present it to the Committee Clerk. The Committee Chair will call individuals in turn. Speakers comments should be limited to two minutes or as set by the Chair. The law does not permit Committee action on, or extended discussion of, any item not on the agenda except under special circumstances. If Committee action is requested, the matter may be placed on a future agenda. All comments that require a response will be referred to staff for a reply in writing. The Committee may take action on any item of business appearing on the posted agenda.*

**3. APPROVAL OF MINUTES:**

3.1. Approval of Minutes.

[18-0786](#)

Recommendation: Approve the August 29, 2018, Meeting Minutes.

Manager: Michele King, 408-630-2711

Attachments: [Attachment 1: 082918 WCaDMC Draft Mins](#)

Est. Staff Time: 5 Minutes

3.2. Approval of Amended Minutes.

[18-0838](#)

Recommendation: Approve the Amended June 25, 2018, Meeting Minutes.

Manager: Michele King, 408-630-2711

Attachments: [Attachment 1: .062518 WCaDMC Amended Mins](#)

Est. Staff Time: 5 Minutes

**4. ACTION ITEMS:**

- 4.1. Water Demand Projection Discussion. [18-0787](#)  
Recommendation: This is a discussion item and the Committee may provide comments. However, no action is required.  
Manager: Darin Taylor, 408-630-3068  
Attachments: [Attachment 1: Water Use Forecast Discussion for WCDM Oct 201](#)  
Est. Staff Time: 10 Minutes
- 4.2. Water Supply Master Plan “No Regrets” Programs. [18-0788](#)  
Recommendation: This is a discussion item and the Committee may provide comments, however, no action is required.  
Manager: Garth Hall, 408-630-2750  
Est. Staff Time: 15 Minutes
- 4.3. Update on Direct Potable Reuse-Treatment Plant/Reservoir (per 4-30-18, public comment request-D. Muirhead). [18-0789](#)  
Recommendation: This is a discussion item and the Committee may provide comments. However, no action is required.  
Manager: Nina Hawk, 408-630-2736  
Est. Staff Time: 20 Minutes
- 4.4. Review of Water Conservation and Demand Management Committee Work Plan, the Outcomes of Board Action of Committee Requests and the Committee’s Next Meeting Agenda. [18-0790](#)  
Recommendation: Review the Committee Work Plan and Planning Calendar to guide the Committee’s discussions regarding policy alternatives and implications for Board deliberation.  
Manager: Michele King, 408-630-2711  
Attachments: [Attachment 1: WCaDMC 2018 Work Plan](#)  
[Attachment 2: WCaDMC January 2019 Draft Agenda](#)  
Est. Staff Time: 10 Minutes

**5. INFORMATION ITEMS:**

- 5.1. Shallow Groundwater. [18-0791](#)  
Recommendation: This is an information only item and no action is required.  
Manager: Garth Hall, 408-630-2750  
Est. Staff Time: 10 Minutes

**6. Clerk Review and Clarification of Committee 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 the meeting.*

**7. ADJOURN:**

7.1. Adjourn

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**File No.:** 18-0786

**Agenda Date:** 10/31/2018

**Item No.:** 3.1.

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## COMMITTEE AGENDA MEMORANDUM

### Water Conservation and Demand Management

**SUBJECT:**

Approval of Minutes.

**RECOMMENDATION:**

Approve the August 29, 2018, Meeting Minutes.

**SUMMARY:**

A summary of Committee discussions, and details of all actions taken by the Committee, during all open and public Committee meetings, is transcribed and submitted for review and approval.

Upon Committee approval, minutes transcripts are finalized and entered into the District's historical records archives and serve as historical records of the Committee's meetings.

**ATTACHMENTS:**

Attachment 1: 082918 Draft Meeting Minutes.

**UNCLASSIFIED MANAGER:**

Michele King, 408-630-2711

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WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE MEETING

# DRAFT MINUTES

MONDAY, AUGUST 29, 2018  
10:00 AM

(Paragraph numbers coincide with agenda item numbers)

A regularly scheduled meeting of the Water Conservation and Demand Management Committee was held on August 29, 2018, in the Headquarters Building Boardroom at the Santa Clara Valley Water District, 5700 Almaden Expressway, San Jose, California.

**1. CALL TO ORDER/ROLL CALL**

Committee Chair, Director Richard P. Santos called the meeting to order at 10:02 a.m.

Board Members in attendance were: Director Nai Hsueh (District 5), Director Linda J. LeZotte (District 4), and Director Richard P. Santos (District 3).

Staff members in attendance were: Glenna Brambill, Vanessa De La Piedra, Rachael Gibson, Garth Hall, Tracy Hemmeter, Karen Koppett and Darin Taylor.

Guests in attendance were: Brian Boyer (Cinnabar Hills Golf Club), Anthony Eulo (City of Morgan Hill), John Tang (San Jose Water Company) and William Sherman (Resident of San Jose).

**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**

**3.1 APPROVAL OF MINUTES**

It was moved by Director Nai Hsueh, seconded by Director Linda J. LeZotte and unanimously carried, to approve the minutes of the June 25, 2018, Water Conservation and Demand Management Committee meeting as presented.

**4. ACTION ITEMS**

Chair Santos moved to Agenda Item 4.2

#### **4.2 FIXED RATE UPDATE**

Mr. Darin Taylor reviewed the materials as outlined in the agenda items.

No action was taken.

#### **4.1 WATER SUPPLY RELIABILITY LEVEL OF SERVICE GOAL**

Ms. Rachael Gibson, Ms. Karen Koppett and Ms. Tracy Hemmeter reviewed the materials as outlined in the agenda items.

Mr. William Sherman, a City of San José resident spoke on various issues surrounding water conservation. Director Linda J. LeZotte and Mr. John Tang of San Jose Water Company thanked Mr. Sherman for his advocacy. Mr. Anthony Eulo mentioned water supply demand is on the rise. The Committee suggested having Mr. Darin Taylor present information on long term demand management forecasting.

No action was taken.

#### **4.3 REVIEW OF WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE WORK PLAN, THE OUTCOMES OF BOARD ACTION OF COMMITTEE REQUESTS AND THE COMMITTEE'S NEXT MEETING AGENDA**

Ms. Glenna Brambill reviewed the materials as outlined in the agenda items.

It was determined that the next meeting would be scheduled for Wednesday, October 31, 2018, 9:00 a.m.

No action taken.

#### **5. CLERK REVIEW AND CLARIFICATION OF COMMITTEE'S REQUESTS**

Ms. Glenna Brambill stated there were no action items for Board consideration.

#### **7. ADJOURNMENT**

Chair Santos adjourned at 10:40 a.m. to the next regularly scheduled to the next scheduled meeting on Wednesday, October 31, 2018, 9:00 a.m., in the Santa Clara Valley Water District Headquarters Building Boardroom.

Glenna Brambill  
Board Committee Liaison  
Office of the Clerk of the Board

Approved:

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**File No.:** 18-0838

**Agenda Date:** 10/31/2018

**Item No.:** 3.2.

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## COMMITTEE AGENDA MEMORANDUM

### Water Conservation and Demand Management

**SUBJECT:**

Approval of Amended Minutes.

**RECOMMENDATION:**

Approve the Amended June 25, 2018, Meeting Minutes.

**SUMMARY:**

A summary of Committee discussions, and details of all actions taken by the Committee, during all open and public Committee meetings, is transcribed and submitted for review and approval.

Upon Committee approval, minutes transcripts are finalized and entered into the District's historical records archives and serve as historical records of the Committee's meetings

**ATTACHMENTS:**

Attachment 1: 062518 WCaDMC Amended Minutes

**UNCLASSIFIED MANAGER:**

Michele King, 408-630-2711





WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE MEETING

# DRAFT MINUTES

**AMENDED**

**MONDAY, JUNE 25, 2018  
10:00 AM**

(Paragraph numbers coincide with agenda item numbers)

A regularly scheduled meeting of the Water Conservation and Demand Management Committee was held on June 25, 2018, in the Headquarters Building Pre-Function Lobby at the Santa Clara Valley Water District, 5700 Almaden Expressway, San Jose, California.

**1. CALL TO ORDER/ROLL CALL**

Committee Chair, Director Richard P. Santos called the meeting to order at 10:03 a.m.

Board Members in attendance were: Director Nai Hsueh (District 5), Director Linda J. LeZotte (District 4), and Director Richard P. Santos (District 3).

Staff members in attendance were: Glenna Brambill, Bill Cameron, George Cook, Jerry De La Piedra, Vanessa De La Piedra, Anthony Fulcher, Garth Hall, Nina Hawk, Tracy Hemmeter, Michael Martin and Stan Yamamoto

Guests in attendance were: Michael Bolzowski (California Water Service) Brian Boyer and Adam Schiro (Cinnabar Hills Golf Club), Timothy Guster (Great Oaks Water Company), Anthony Eulo (City of Morgan Hill), and Doug Muirhead (Resident of Morgan Hill), Phil Bobel (City of Palo Alto), Rita Vrhel and Esther Nigenda (Save Palo Alto's Groundwater), Jeffrey Provenzano and Kerrie Romanow (City of San José) and Charles Ice (San Mateo)

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

~~Mr. Doug Muirhead, a Resident of the City of Morgan Hill requested staff to share any updates on direct potable reuse regarding treatment plants or reservoirs.~~ **There was no one present who wished to speak.**

**3. APPROVAL OF MINUTES**

**3.1 APPROVAL OF MINUTES**

It was moved by Director Nai Hsueh, seconded by Director Linda J. LeZotte and unanimously carried, to approve the minutes of the April 30, 2018, Water

Conservation and Demand Management Committee meeting as presented.

#### **4. ACTION ITEMS**

##### **4.1 WATER SUPPLY RELIABILITY LEVEL OF SERVICE GOAL**

Mr. Michael Martin reviewed the materials as outlined in the agenda items.

Director Nai Hsueh suggested when going to the Board elaborate more on Making Conservation A California Way of Life and whether there could be potential impact on reduction of water demand.

Mr. Jerry De La Piedra was available to answer questions.

No action was taken.

##### **4.2 CLIMATE SMART SAN JOSE PLAN**

Ms. Kerrie Romanow reviewed the materials as outlined in the agenda items.

Director Linda J. LeZotte, Mr. Garth Hall, Director Nai Hsueh and Director Richard P. Santos spoke on this item regarding stormwater recharge, land use, Water Conservation Demand Model Ordinance, working group, “No Regrets” package and carbon footprint-emissions.

Mr. Jerry De La Piedra and Mr. Jeffrey Provenzano were available to answer questions.

No action was taken.

##### **4.3 REVIEW OF WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE WORK PLAN, THE OUTCOMES OF BOARD ACTION OF COMMITTEE REQUESTS AND THE COMMITTEE’S NEXT MEETING AGENDA**

Ms. Glenna Brambill reviewed the materials as outlined in the agenda items.

It was determined that the next meeting would be scheduled for Wednesday, August 29, 2018, 10:00 a.m.

Mr. Doug Muirhead from Morgan Hill, asked if we could add highlights of groundwater basins to the next agenda.

No action taken.

#### **5. INFORMATION ITEMS**

##### **5.1 SHALLOW GROUNDWATER**

Mr. George Cook reviewed the materials as outlined in the agenda item.

Ms. Esther Nigenda and Rita Vrhel of Save Palo Alto’s Groundwater spoke regarding conservation, construction and definition of shallow groundwater. Mr. Charles Ice had question on shallow groundwater’s bad connotation and community resource.

Ms. Vanessa De La Piedra and Mr. Garth Hall, Ms. Nina Hawk and Mr. Phil Bobel were available to answer questions.

Directors Santos and Hsueh would like to have further discussion on this subject. Ms. Vanessa De La Piedra assured Committee Members that staff will continue to review this subject matter.

## **5.2 WATER CONSERVATION PROGRAMS FOR THE LANDSCAPE SECTOR**

Mr. Jerry De La Piedra reviewed the materials as outlined in the agenda item and will continue to monitor this subject matter.

## **6. CLERK REVIEW AND CLARIFICATION OF COMMITTEE'S REQUESTS**

Ms. Glenna Brambill stated there were no action items for Board consideration.

## **7. ADJOURNMENT**

Chair Santos adjourned at 11:24 a.m. to the next regularly scheduled to the next scheduled meeting on Wednesday, August 29, 2018, at 10:00 a.m., in the Santa Clara Valley Water District Headquarters Building Boardroom.

Glenna Brambill  
Board Committee Liaison  
Office of the Clerk of the Board

Approved:





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**File No.:** 18-0787

**Agenda Date:** 10/31/2018

**Item No.:** 4.1.

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## COMMITTEE AGENDA MEMORANDUM

### Water Conservation and Demand Management

**SUBJECT:**

Water Demand Projection Discussion.

**RECOMMENDATION:**

This is a discussion item and the Committee may provide comments. However, no action is required.

**SUMMARY:**

The attached PowerPoint presentation shows historical and projected trends for Santa Clara Valley Water District (District) managed water use. District managed water use when coupled with water charges drives the amount of water revenues received, and includes groundwater, treated water, raw surface water and recycled water use.

Groundwater users pump water from groundwater basins that are both naturally and artificially recharged with surface waters. The groundwater production charge recoups the District's costs to protect and augment this source of water, as outlined in the District Act.

Treated water users are comprised of 7 retail water companies that take treated surface water from one of the District's 3 water treatment plants and sell it to their end user customers. The water comes from locally captured runoff or water imported into Santa Clara County. The District recoups the cost of providing treated water by charging users the basic user charge, which is set equivalent to the groundwater production charge, and a treated water surcharge. The provision of treated water helps preserve the groundwater basin and therefore benefits groundwater users.

Surface water users are permitted by the District to tap raw District-managed surface water from creeks, streams or raw water pipelines. To the extent the District releases stored water from its local reservoirs, it considers this to be developed, not natural, surface water, which is not subject to diversion by third parties. Surface water users pay the basic user charge, which is set equivalent to the groundwater production charge, plus a surface water master charge. The basic user charge helps pay for the cost to manage and augment surface water supplies and is set equal to the groundwater production charge. The provision of surface water eases the burden on the groundwater basins; and, therefore considered in-lieu groundwater recharge. The surface water master charge pays for costs that are specific to surface water users only, including the work to operate surface water turnouts, and maintain surface water accounts.

Recycled water users are those users who take purified wastewater for irrigation purposes. Recycled

water is an all-weather supply. Recycled water charges are established at rates that maximize cost recovery while providing an economic incentive to use recycled water. The provision of recycled water helps preserve the groundwater basin and therefore benefits groundwater users.

Agricultural water users are a subset of the groundwater, surface water and recycled water customer classes. Section 26.1 of the District Act defines agricultural water use as “water primarily used in the commercial production of agricultural crops or livestock.” Agricultural charges are limited to a maximum of 25% of non-agricultural charges per the District Act. Board policy further limits agricultural charges to no more than 10% of non-agricultural charges in order to help preserve open space. Non-rate related revenue is used to offset lost agricultural water revenue for each customer class and is referred to as the Open Space Credit.

Non-agricultural users (also referred to as Municipal and Industrial users) are a subset of all 4 customer classes and consist of all water use other than agricultural. Non-agricultural water use charges are established for each customer class as described in the preceding paragraph.

The attached presentation focuses on non-agricultural water use which drives the vast majority of water revenues. Projecting water use is more of an art than science, since it is impossible to know what the future holds. Staff updates the water use projection annually and attempts to project water use conservatively, to avoid over-budgeting revenues and underestimating future water charge increases. The current District-managed water use forecast maintains a 20% or greater reduction verses fiscal year (FY) 2014 actual water use when adjusted for projected population growth. FY 2014 water use is equivalent to calendar year 2013 water use, which is the District’s base year for conservation comparison purposes. Committee feedback on the water demand projection would be appreciated as the FY 2020 rate setting process is in the beginning stages.

**ATTACHMENTS:**

Attachment 1: PowerPoint presentation

**UNCLASSIFIED MANAGER:**

Darin Taylor, 408-630-3068

# Water Demand Projection Discussion

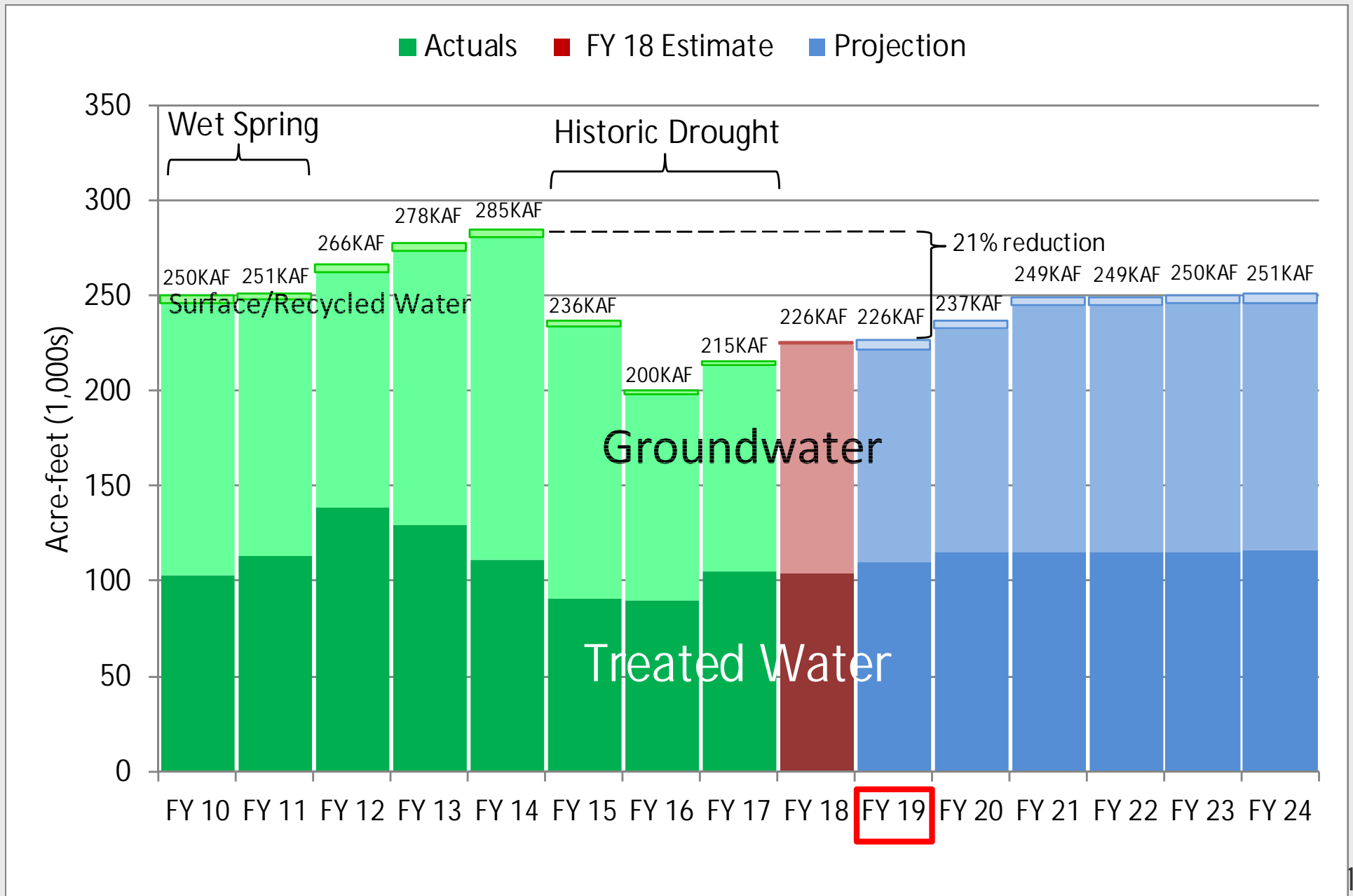
October 31, 2018

Santa Clara Valley  
Water District

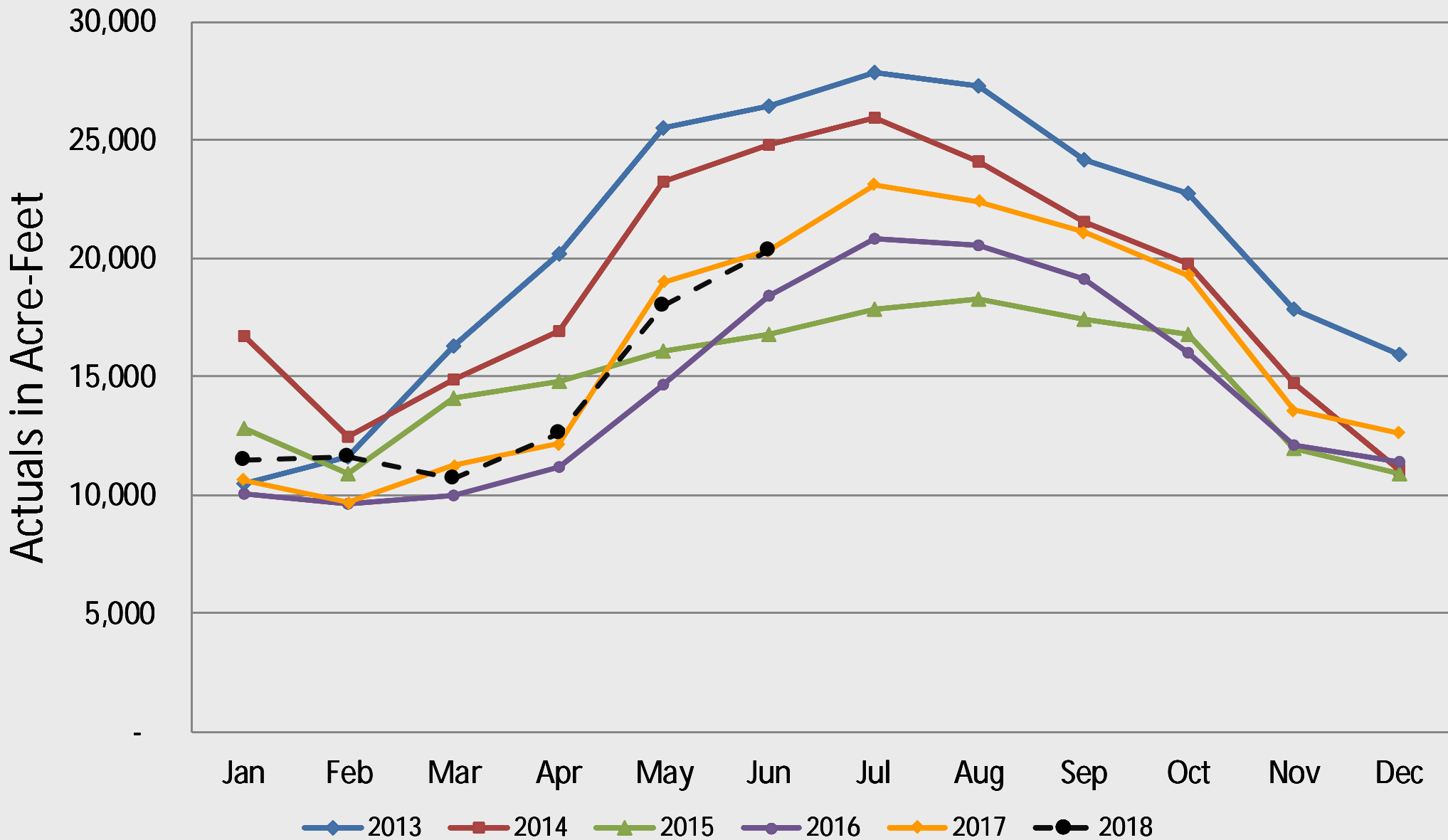


Attachment 1  
Page 1 of 6

# Water Usage (District Managed)



# Historic Water Usage (Groundwater & Treated Water)

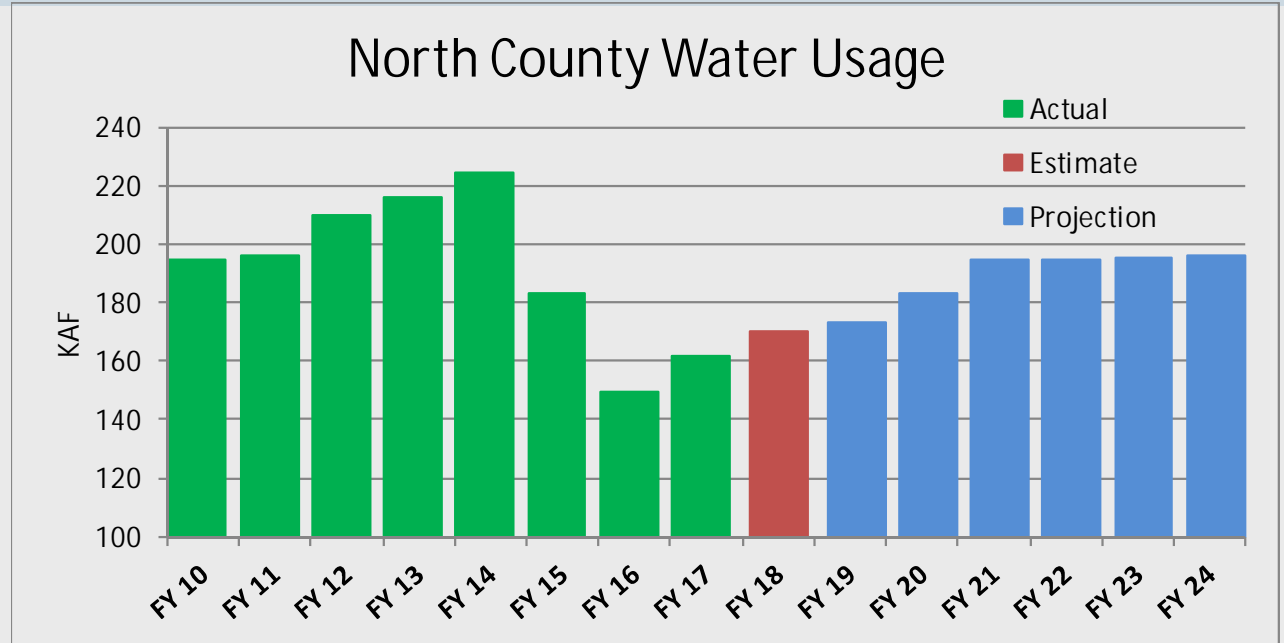


Note: Groundwater Actuals do not include semi-annual and annual billings

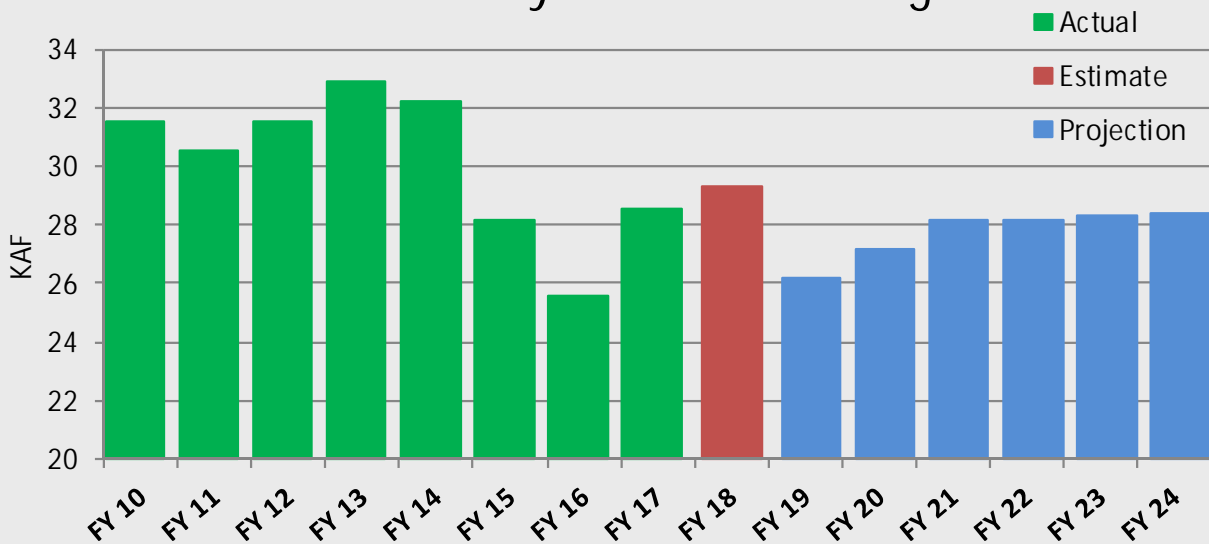
# Water Usage Trend by Zone

## North County Water Usage

Includes Groundwater, Treated Water, & Surface Water



## South County M&I Water Usage



South County Water Usage  
Includes Groundwater, Surface Water & Recycled Water

# Water Usage (District Managed)

|                              | FY14 | FY 15 | FY 16 | FY 17 | FY 18 | FY 19 | FY 20 | FY 25 | FY 30 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Water Use (AF)               | 285  | 236   | 200   | 215   | 226   | 226   | 237   | 252   | 258   |
| % Change vs FY 14            |      | -17%  | -30%  | -25%  | -21%  | -21%  | -17%  | -12%  | -9%   |
| % Change Adjusted for Growth |      |       |       |       |       |       | -23%  | -22%  | -24%  |

Note: FY14 water use is equivalent to calendar year 2013, which is the District's base year for conservation comparison purposes

Forecasted water use maintains 20%+ reduction vs FY 14 when adjusted for projected population growth

# Summary

- Projecting water use is more art than science
  - Reviewed and updated annually
- From a revenue forecast standpoint, better to project water use conservatively
- Forecasted water use maintains 20%+ reduction vs FY 14 when adjusted for projected population growth
- Committee feedback appreciated



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**File No.:** 18-0788

**Agenda Date:** 10/31/2018

**Item No.:** 4.2.

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## COMMITTEE AGENDA MEMORANDUM

### Water Conservation and Demand Management

**SUBJECT:**

Water Supply Master Plan “No Regrets” Programs.

**RECOMMENDATION:**

This is a discussion item and the Committee may provide comments, however, no action is required.

**SUMMARY:**

This is a status update for the Water Supply Master Plan “No Regrets” package.

**BACKGROUND:**

The “No Regrets” package of projects and programs is broadly supported by stakeholders, relatively low cost, and can be implemented independently of other projects and programs that might be included in the Water Supply Master Plan. These projects and programs include:

- 1) Advanced Metering Infrastructure
- 2) Leak Repair Incentives
- 3) Graywater Rebate Program Expansion
- 4) Model Water Efficiency New Development Ordinance
- 5) Stormwater Capture

The Board approved beginning planning for implementing the No Regrets package at their September 19, 2017 meeting, and an update on this plan’s implementation was presented to the Committee on April 30, 2018.

1) **ADVANCED METERING INFRASTRUCTURE (AMI)**

Staff is developing an Advanced Metering Infrastructure (AMI) Program to encourage the installation of AMI meters, and to maximize their savings potential by pairing the meters with software that will give real-time water data on an accessible online database, leak alerts, and home water use reports.

This program will involve establishing cost sharing agreements with water retailers in Santa

Clara County. To maximize participation and flexibility, the District will offer four options for water retailers, which water retailers may choose to combine. A brief description of the four options currently being considered include:

**OPTION 1: New AMI Conversion Combined with Home Water Use Reports**

District will rebate 50 percent of the cost of an AMI conversion, up to \$70 per conversion. Additionally, District will fund 50 percent of the cost of the software linked to AMI, up to \$4.50 per home per year, when combined with home water use reports.

**OPTION 2: Existing AMI Combined with Home Water Use Reports**

District will rebate \$10 per AMI conversion currently in operation annually for seven years. If water retailer had previously received funding from the District for AMI conversion those conversions will not be eligible for additional funding. District will fund 50 percent of the cost of the software linked to AMI, up to \$4.50 per home per year, when combined with home water use reports.

**OPTION 3: AMI Conversion Only**

District will rebate 50 percent of the cost of an AMI conversion, up to \$70 per conversion.

**OPTION 4: Water Use Reports Only**

District will rebate 50 percent of the cost of Home Water Use Reports, up to \$4.50 per home per year. No AMI or meter type requirement. The District currently has this program in place.

Staff anticipates implementing this program in November 2018, with cost sharing agreements in place by early 2019.

**2) LEAK REPAIR INCENTIVES**

Staff anticipate implementing a leak repair incentive program after implementing AMI, in coordination with the water retailers. AMI will provide information on the frequency and magnitude of leaks, as well as customer responses to different levels of leaks. This information will inform how best to design a program by better understanding the severity of the issue and potentially the types of leaks that are occurring. Furthermore, AMI will provide data to help evaluate the effectiveness of leak repair incentives. It could be that a leak repair incentive program would be most effective in disadvantaged communities and/or for very slow leaks that consumers may not be sufficiently motivated to repair on their own.

**3) GRAYWATER REBATE PROGRAM EXPANSION**

The Board approved the Graywater Installation Program on July 10, 2018. In partnership with the non-profit Ecology Action, a contractor workforce will receive training to install code-compliant graywater systems. Using the trained contractors, up to 100 low-income/underserved Santa Clara County residents will have graywater laundry-to-landscape systems installed by June 30, 2020 or until funding is expended, whichever comes first.

The Graywater Rebate Program application process has been simplified. No pre-inspection is required, and all required documents are listed as a checklist in the online application.

A community-based social marketing campaign is being developed in concert with the Communications Unit to identify key barriers from adopting these systems and parties that may influence their adoption (e.g. external stakeholders such as contractors, other agencies, private vendors, and the public-at-large, etc.). The quantitative and qualitative results from this campaign will help identify ways the District can support graywater use by implementing programs and outreach that directly target identified barriers and influential parties.

Outreach materials and workshops continue to be showcased on valleywater.org and promoted seasonally. An hour-long video of a comprehensive graywater workshop provided by the District in partnership with BAWSCA is nearing completion, which will allow community members to view workshop materials at will.

#### 4) MODEL WATER EFFICIENCY NEW DEVELOPMENT ORDINANCE

The Model Water Efficiency New Development Ordinance has been drafted and is being shared with key groups. The District has hired a consultant to finalize the Model Ordinance, develop an analysis as to why it's needed (including benefit/costs), and to prepare the Model Ordinance for filing with the Building Standards Commission review.

Staff will incorporate stakeholder input and then work with all the Santa Clara County jurisdictions on adoption. The District's role will be to encourage ordinance adoption and implementation and provide technical assistance.

#### 5) STORMWATER CAPTURE

Stormwater capture can have water quality, water supply, flood management, environmental, and community (e.g., aesthetics, recreation, and education) benefits. Included in the "No Regrets" projects are two different scales of stormwater capture projects - "centralized" and "decentralized":

"Centralized" projects are those that capture water from multiple parcels and/or are municipal projects, including "green streets" projects. There are three centralized stormwater "No Regrets" projects - two municipal stormwater capture basins and stormwater recharge on

agricultural land.

“Decentralized” projects focus primarily of keeping stormwater onsite and/or private citizen projects. The “No Regrets” package includes two decentralized programs -rain barrel/cistern rebates and rain garden rebates.

Staff in the Water Utility Enterprise and Watersheds are participating in the development of the Storm Water Resources Plan (SWRP) to develop, prioritize, and plan for “centralized” stormwater projects in the Santa Clara groundwater sub-basin of Santa Clara County. The proposed stormwater projects are located on public lands and capture water from multiple parcels. Through this plan, the Upper Penitencia area has been identified as an area for potential stormwater detention and recharge. In addition, Upper Pentencia has been selected for developing a conceptual project design as part of the SWRP. As part of the SWRP development, hydrologic modeling and a reasonable assurance analysis is being conducted to ensure pollutant load reductions or reduced stormwater impacts will be achieved through the implementation of proposed stormwater projects. A draft of the SWRP has been released to the public and staff for comment. The SWRP is scheduled for completion in December 2018.

In addition to the SWRP, staff are also investigating the potential to use agricultural lands for stormwater recharge. An agricultural land recharge program may help maximize the benefits of existing open space by using the agricultural lands as temporary recharge sites during the wet winter months. An example of this process is in the Central Valley where some almond growers allow their fields to flood during the winter to recharge the aquifer. The planned flooding for groundwater recharge is referred to as flood-managed aquifer recharge (Flood-MAR) and different methods are currently being piloted in the Central Valley and in the lower Pajaro River watershed. Staff are monitoring the pilot projects to determine impacts and benefits to crops, water quality, and water supply. As noted by the California Department of Water Resources (DWR), “complex technical, legal, and institutional barriers and challenges affect the planning and implementation of Flood-MAR projects” including water rights, permitting, and environmental considerations. However, recognizing the broad potential benefits of Flood-MAR, DWR is leading the statewide efforts to evaluate these issued with stakeholders with the goal of expanding Flood-MAR on agricultural lands and working with landscapes throughout California. Staff are engaging in these statewide efforts. Locally, staff are working with the Open Space Authority and Santa Clara County Planning to develop a planning and piloting approach to explore the potential implementation of agricultural land recharge in Santa Clara County.

The District proposes using rebates to encourage water customers to participate in the decentralized stormwater capture programs (Stormwater Capture Rebates). Details of the Stormwater Capture Rebates, for collecting roof water for onsite reuse, are being finalized and are scheduled to be launched by January 1, 2019. Stormwater Capture Rebates, which will be managed within the Landscape Rebate Program, include rain barrels (\$35 per unit), cisterns (\$0.50 per gallon of storage for both above and underground units), and rain gardens (\$1.00 per square foot). We will be working with Communications to advertise the program and will explore partnerships with other water retailers or cities that either have their own programs

currently or may be interested in cost sharing

**ATTACHMENTS:**

None.

**UNCLASSIFIED MANAGER:**

Garth Hall, 408-630-2750



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**File No.:** 18-0789

**Agenda Date:** 10/31/2018

**Item No.:** 4.3.

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## COMMITTEE AGENDA MEMORANDUM

### Water Conservation and Demand Management

**SUBJECT:**

Update on Direct Potable Reuse-Treatment Plant/Reservoir (per 4-30-18, public comment request-D. Muirhead).

**RECOMMENDATION:**

This is a discussion item and the Committee may provide comments. However, no action is required.

**SUMMARY:**

At the April 30, 2018, Water Conservation and Demand Management Committee meeting, Mr. Doug Muirhead, a Resident of the City of Morgan Hill, requested staff to share any updates on direct potable reuse regarding treatment plants or reservoirs. Per request of Chair Santos, this memorandum presents a brief review of the District's recent involvement with direct potable reuse regulatory development in California.

#### *Potable Reuse Regulatory Development*

Potable water reuse in California involves advanced treatment of wastewater which typically involves microfiltration, reverse osmosis and ultraviolet processes such that the water quality meets or exceeds state and federal drinking water standards. In general, there are two types of potable water reuse technologies: indirect potable reuse (IPR) and direct potable reuse (DPR). The main difference between the two is that IPR involves placement of advanced treated water in either a groundwater aquifer or surface reservoir (environmental buffer) which serves as a point for blending with traditional water supply sources, whereas DPR does not include an environmental buffer. The District has been positively involved with the regulatory development of water recycling policy at the State Water Resources Control Board (State Board), and especially IPR policy for groundwater recharge and reservoir water augmentation, and developing state policy for direct potable reuse (DPR) applications.

Prior to June 2014, water recycling criteria included narrative requirements for planned Groundwater Recharge (GWR) projects. Two statewide water resource policies have been critically important to GWR projects regarding the protection of water quality and human health: California Anti-Degradation Policies and the Recycled Water Policy. On June 18, 2014, [GWR Regulations <https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/DPH-14-003EGroundwaterReplenishmentUsingRecycledWater.html>](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/DPH-14-003EGroundwaterReplenishmentUsingRecycledWater.html) were adopted by the State Board, and these regulations now serve as the basis for any future GWR facilities. GWR regulations are organized by type of project: (1) surface application (surface spreading) and (2) subsurface

application (direct injection).

In September 2017, the State Board proposed regulations governing the planned placement of recycled water into a surface water reservoir (aka reservoir water augmentation or RWA) that is used as a source of domestic drinking water supply. These regulations were subsequently amended in October 2017 in response to public comment. In November 2017, the State Board's Expert Panel found these RWA regulations, as amended, would adequately protect public health. The State Board then adopted the proposed [Regulations for RWA](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Surface_Water_Augmentation_Regulations.html) [using recycled water in March 2018, with an effective date of October 1, 2018.](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Surface_Water_Augmentation_Regulations.html)

There are two forms of planned Direct Potable Reuse (DPR). In the first form (aka raw water augmentation), advanced treated water produced in an advanced water treatment facility (AWTF) is introduced into the raw water supply immediately upstream of a drinking water treatment facility. In the second form (aka treated drinking water augmentation), finished water produced in an AWTF is introduced directly into a drinking water supply distribution system, either downstream of a drinking water treatment facility or within the distribution system. Currently, federal regulations do not exist explicitly for DPR, and no state has developed explicit regulations for DPR.

The State Board completed a [Report to Legislature](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/rw_dpr_criteria.html) [on the feasibility of developing water recycling criteria for direct potable reuse in December 2016.](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/rw_dpr_criteria.html) This report was required by SB 918 (Chapter 700, Statutes of 2009) and:

- Considered the advice of an Expert Panel on public health issues, and scientific and technical matters;
- Provided the State Board's analysis on whether creating regulations for the direct potable reuse of recycled water is achievable;
- Provided recommendations for DPR research needs and an implementation plan for developing criteria for DPR; and
- Concluded that the use of recycled water for DPR has great potential but presents scientific and technical challenges that must be addressed to ensure the public's health is reliably protected.

The report to Legislature asserted, *"Given the various possible types of DPR projects, a common framework will be needed to avoid discontinuities in the risk assessment/risk management approach as progressively more difficult conditions are addressed."*

In 2018, District staff actively participated in the development of the State Board's ["Framework for Regulating Direct Potable Reuse in California"](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/direct_potable_reuse.html) [\(Framework\).](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/direct_potable_reuse.html) This document was prepared to satisfy legislative requirements (AB 574) to establish a framework for the regulation of potable reuse projects on or before June 1, 2018. The Framework presents the State Board's current direction for regulating DPR in California and will serve as the foundation for future regulatory development of uniform water recycling criteria. The Framework is



not a regulatory document and will be followed by a formal rulemaking process pursuant to the Administrative Procedures Act to adopt regulations pertaining to DPR though raw water augmentation.

While the State Water Board agrees that regulations for DPR are attainable, it is the State Board's opinion that more research is needed, and that serious knowledge gaps remain. The direct potable reuse of recycled water has great potential but has very real scientific and technical challenges that must be addressed first before DPR can be consumed by public water system customers. Because of the requested research, and the need to answer these knowledge gaps, the State Board does not have a definite timeline on when regulations may be completed. The District will continue to monitor DPR regulatory developments at the State Board, and actively participate as guidelines and policies are released for public comment.

**ATTACHMENTS:**

None.

**UNCLASSIFIED MANAGER:**

Nina Hawk, 408-630-2736



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**File No.:** 18-0790

**Agenda Date:** 10/31/2018

**Item No.:** 4.4.

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## **COMMITTEE AGENDA MEMORANDUM**

### **Water Conservation and Demand Management**

#### **SUBJECT:**

Review of Water Conservation and Demand Management Committee Work Plan, the Outcomes of Board Action of Committee Requests and the Committee's Next Meeting Agenda.

#### **RECOMMENDATION:**

Review the Committee Work Plan and Planning Calendar to guide the Committee's discussions regarding policy alternatives and implications for Board deliberation.

#### **SUMMARY:**

The attached Work Plan and Planning Calendar outlines the topics for discussion to be able to prepare policy alternatives and implications for Board deliberation. The work plan and planning calendar are agendaized 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

#### **ATTACHMENTS:**

Attachment 1: Water Conservation and Demand Management Committee 2018 Work Plan

Attachment 2: Water Conservation and Demand Management Committee January 2019 Draft  
Agenda

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**File No.:** 18-0790

**Agenda Date:** 10/31/2018  
**Item No.:** 4.4.

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**UNCLASSIFIED MANAGER:**  
Michele King, 408-630-2711

# 2018 Work Plan: Water Conservation and Demand Management Committee

Update: September 2018

The annual work plan establishes a framework for committee discussion and action during the annual meeting schedule. The committee work plan is a dynamic document, subject to change as external and internal issues impacting the District occur and are recommended for committee discussion. Subsequently, an annual committee accomplishments report is developed based on the work plan and presented to the District Board of Directors.

| ITEM | WORK PLAN ITEM  | MEETING | ACTION/DISCUSSION OR INFORMATION ONLY | ACCOMPLISHMENT DATE AND OUTCOME  |
|------|---|---------|---------------------------------------|--|
| 1    | Election of Chair and Vice Chair for 2018   | 2-28-18 | Discussion/Action Item                | <b>Accomplished 02/28/18:</b><br>The Committee voted to retain Director Richard P. Santos as Chair and Director Linda J. LeZotte as Vice Chair' for 2018.  |
| 2    | Water Conservation and Demand Management Committee 2017 Accomplishments Report  | 2-28-18 | Discussion                            | <b>Accomplished 02/28/18:</b><br>The Committee reviewed the 2017 work plan accomplishments and took no action.   |
| 3    | <p>Develop Water Conservation and Demand Management Committee's 2018 Work Plan, in consideration of the following potential topics:</p> <ul style="list-style-type: none"> <li>• Current water conservation programs and resources</li> <li>• Water Supply Master Plan "No Regrets" programs</li> <li>• Shallow groundwater</li> <li>• Fixed/variable charges</li> <li>• Open Space credit</li> <li>• State's effort to Make Water Conservation a California Way of Life</li> <li>• Water Supply Reliability Level of Service Goal</li> </ul> <p><i>See workplan items #5-#11 for suggested meeting dates</i></p> | 2-28-18 | Discussion/Action Item                | <b>Accomplished 02/28/18:</b><br>The Committee received an overview of the 2018 work plan and added one additional item to the Climate Plan and invited the City of San Jose's Environmental Services Division (ESD) to make a presentation. |

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

Attachment 1  
Page 1 of 4

# 2018 Work Plan: Water Conservation and Demand Management Committee

Update: September 2018

| ITEM | WORK PLAN ITEM   | MEETING  | ACTION/DISCUSSION OR INFORMATION ONLY | ACCOMPLISHMENT DATE AND OUTCOME   |
|------|--|--|---------------------------------------|---|
| 4    | Review of Water Conservation and Demand Management Committee Work Plan, the Outcomes of Board Action of Committee Requests and the Committee's Next Meeting Agenda | 2-28-18<br>4-30-18<br>6-25-18<br>8-29-18<br>10-31-18 | Discussion/Action Item                | <p><b>Accomplished 02/28/18:</b><br/>The Committee received an overview of the 2018 work plan and took no action.</p> <p><b>Accomplished 04/30/18:</b><br/>The Committee received an overview of the 2018 work plan and took no action.</p> <p><b>Accomplished 06/25/18:</b><br/>The Committee received an overview of the 2018 work plan and took no action.</p> |
| 5    | Water Conservation Options for Agriculture   | 4-30-18  | Discussion/Action Item                | <p><b>Accomplished 04/30/18:</b><br/>The Committee received an overview of the Water Conservation Options for Agriculture and took no action.</p>   |
| 6    | Water Supply Reliability Level of Service Goal   | 4-30-18<br>6-25-18                                   | Discussion/Action Item                | <p><b>Accomplished 04/30/18:</b><br/>The Committee received an overview of the Water Supply Reliability Level of Service Goal and took no action, however, provided staff with comments.</p> <p><b>Accomplished 06/25/18:</b><br/>The Committee received an overview of the Water Supply Reliability Level of Service Goal and took no action.</p>                |

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

Attachment 1  
Page 2 of 4

# 2018 Work Plan: Water Conservation and Demand Management Committee

Update: September 2018

| ITEM | WORK PLAN ITEM  | MEETING             | ACTION/DISCUSSION OR INFORMATION ONLY | ACCOMPLISHMENT DATE AND OUTCOME  |
|------|---|---------------------|---------------------------------------|--|
| 7    | Current Water Conservation Programs and Resources             | 4-30-18             | Discussion/Action Item                | <b>Accomplished 04/30/18:</b><br>The Committee received an overview of the Current Water Conservation Programs and Resources and took no action, however, provided staff with comments.  |
| 8    | Water Supply Master Plan “No Regrets” Programs                | 4-30-18<br>10-31-18 | Discussion/Action Item                | <b>Accomplished 04/30/18:</b><br>The Committee received an overview of the Water Supply Master Plan “No Regrets” Programs and took no action, however, provided staff with comments. If staff comes up with any cost sharing/subsidy program, bring it back to the Committee for discussion. |
| 9    | Shallow groundwater   | 6-25-18<br>10-31-18 | Discussion/Action Item                | <b>Accomplished 06/25/18:</b><br>The Committee received information on shallow groundwater and took no action.   |
| 10   | Climate Smart San Jose Plan-City of San Jose ESD-presentation | 6-25-18             | Discussion/Action Item                | <b>Accomplished 06/25/18:</b><br>The Committee received a presentation by City of San José staff on the City’s Climate Plan and took no action.  |

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

Attachment 1  
Page 3 of 4

# 2018 Work Plan: Water Conservation and Demand Management Committee

Update: September 2018

| ITEM | WORK PLAN ITEM   | MEETING  | ACTION/DISCUSSION OR INFORMATION ONLY | ACCOMPLISHMENT DATE AND OUTCOME   |
|------|--|----------|---------------------------------------|---|
| 11   | Water Conservation Programs for the Landscape Sector   | 6-25-18  | Discussion/Action Item                | <b>Accomplished 06/25/18:</b><br>The Committee received information on Water Conservation Programs for the Landscape Sector and took no action.                   |
| 12   | State's effort to Make Water Conservation a California Way of Life   | 8-29-18  | Discussion/Action Item                | <b>Accomplished 08/29/18:</b><br>The Committee received an overview of the State's effort to Make Water Conservation a California Way of Life and took no action. |
| 13   | Fixed/variable charges   | 8-29-18  | Discussion/Action Item                | <b>Accomplished 08/29/18:</b><br>The Committee received a presentation of the Fixed/variable charges and took no action.  |
| 14   | Update on Direct Potable Reuse-Treatment Plant/Reservoir (per 4-30-18, public comment request-D. Muirhead) | 10-31-18 | Discussion/Action Item                |   |
| 15   | Groundwater Basins—Update State Laws/Regulations ((per 6-25-18, request-D. Muirhead)                       | 10-31-18 | Discussion/Action Item                |   |
| 16   | Water Demand Projection Discussion   | 10-31-18 | Discussion/Action Item                |   |

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

Attachment 1  
Page 4 of 4



**DRAFT AGENDA**

**WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE**

**JANUARY 2019 (TBD)**

**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 – October 31, 2018, meeting
4. **Elect Chair and Vice Chair**
5. **Discussion/Action Items**  
5.1 Water Conservation and Demand Management Committee 2018 Accomplishments Report (Committee Liaison)  
**Recommendation: Receive the 2018 Accomplishments Report.**  
  
5.2 Current Water Conservation Programs and Resources (Jerry De La Piedra)  
**Recommendation: This is a discussion item and the Committee may provide comments, however, no action is required.**  
  
5.3 Develop Water Conservation and Demand Management Committee's 2019 Work Plan (Committee Chair)  
**Recommendation: Develop the Water Conservation and Demand Management Committee Work Plan and the Committee's Next Meeting Agenda.**
6. **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.*
7. **Adjourn:** 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.

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**File No.:** 18-0791

**Agenda Date:** 10/31/2018

**Item No.:** 5.1.

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## COMMITTEE AGENDA MEMORANDUM

### Water Conservation and Demand Management

**SUBJECT:**

Shallow Groundwater.

**RECOMMENDATION:**

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

**SUMMARY:**

At the June 25, 2018 Committee meeting, staff presented information on shallow groundwater conditions and the District's limited authority related to dewatering discharges. This memo provides additional information on dewatering, including potential actions the Committee may wish to further explore such as expanding well regulation, initiating targeted metering, imposing groundwater charges, and pursuing expanded reuse.

Dewatering will continue to be required to provide relief from flooding where shallow groundwater intersects excavations and infrastructure. There is no simple solution to reduce dewatering discharges or expand related reuse. Staff recommends continued evaluation of the extent of dewatering, as well as how shallow groundwater interacts with deeper, principal aquifers and with interconnected surface water. If ongoing dewatering sites with consistently significant yield are identified, staff will report back on the estimated resource needs to explore long-term reuse options.

**BACKGROUND:**

Shallow groundwater occurs naturally in some locations in Santa Clara County, with depth to water often less than 10 feet. This condition persists in some areas, even during droughts, due to natural geology and because there is little demand for water from these zones. Where excavations or infrastructure intersect shallow groundwater, temporary or ongoing dewatering may be required. Construction activities requiring dewatering are permitted by land use and/or regulatory agencies, which may impose related restrictions. Generally, only a small fraction of dewatering flow is reused. Reasons for limited reuse include the often-temporary nature of dewatering, lack of infrastructure, and marginal water quality. The amount of water pumped for temporary and ongoing dewatering is small compared to pumping for beneficial use. Notwithstanding the temporary and ongoing dewatering practices, groundwater conditions are sustainable in the Santa Clara and Llagas subbasins.

In general, the District has no authority to regulate land use. The District's authority is derived from the District Act and other statutes adopted by the Legislature. Under the District's enabling act, the

District has no authority to charge for dewatered water unless it is sold or put to beneficial use. Furthermore, the District cannot regulate the use of dewatering wells unless there is a likely threat to groundwater resources. While the District regulates well construction, “wells used for the purpose of dewatering excavation during construction” are exempt from regulation per California Water Code Section 13710. These constraints currently limit the District’s ability to control dewatering. However, the Committee may wish to consider exploring one or more of the options below.

### Potential Actions Related to Dewatering

#### 1. Expand Well Ordinance to Require Permits for Temporary Dewatering Wells

District Ordinance 90-1 requires permitting for any person drilling, refurbishing, or destroying a well or other deep excavation that intersects the groundwater aquifers of Santa Clara County. Temporary wells used during excavation are specifically exempted from permitting based on the State Wells Standard (Water Code Section 13710). Ordinance 90-1 could be modified to require permitting of temporary dewatering wells. While this would not stop or reduce dewatering, it would help the District better understand the extent of dewatering and help ensure proper destruction of dewatering wells to prevent vertical conduits for contaminants. However, additional resources would be required to manage related permitting/inspection and associated data.

#### 2. Pursue Metering of Dewatering Wells

The volume of water pumped for dewatering in the County is largely unknown since the District Act only requires the reporting of water pumped for beneficial use; wells used for dewatering excavations are exempt from well construction regulation, and small-scale dewatering can be achieved with sump pumps. The City of Palo Alto requires metering of dewatering discharges as a condition of related permits, with the permittee responsible for installing the meter and reporting related dewatered volumes. The District could recommend that other land use and/or regulatory agencies impose similar requirements. However, other agencies may not identify compelling reasons to impose such requirements and may not want to pursue them given additional resource requirements to manage related data.

Alternatively, the District could pursue the authority to require metering for dewatering. While the District can require meters for water-producing facilities, the District Act definition of the term “producing” excludes dewatering. The District could pursue legislation to amend the District Act such that metering could be required for dewatering. Current District metering programs focus primarily on large groundwater-producing facilities since installing, maintaining, and reading meters requires significant resources and, in many cases, metering small pumpers costs more than the revenue the metered facility would yield. Like the City of Palo Alto, the District could require those that are dewatering to install meters and report related volumes (if the District Act amendment is successful). In either case, additional District resources would be required for metering and/or evaluating and managing related data.

#### 3. Pursue Imposition of Groundwater Charges for Dewatering

The District can levy a charge on groundwater from water-producing facilities within zones established by the District Board. In defining a “water-producing facility,” Section 26.1 of the District Act excludes “water incidentally produced in a bona fide mining or excavating operation or water incidentally produced in the bona fide construction of a tunnel, unless the groundwater so extracted shall be used or sold by the producer for domestic, municipal, irrigation, industrial, or other beneficial purpose.”

The purpose of the groundwater charge is to collect revenue for the implementation of programs to manage groundwater for beneficial use. Pumping related to dewatering is not subject the District's groundwater charge because the water is not pumped for beneficial use, but rather to provide relief from flooding.

The District could pursue legislation to amend the District Act such that groundwater produced during dewatering is subject to groundwater charges. However, this may not significantly reduce dewatering discharges, particularly where dewatering is required to protect infrastructure or in very affluent areas where the additional cost may not be a deterrent. The District should consider potential costs and concerns from developers and residents in areas where dewatering is required given that shallow groundwater is a natural, ongoing condition.

#### 4. Explore Expanded Reuse

California law requires all uses of water to be reasonable when practical. What is reasonable is situational and depends on the competing demands for the water. Agencies permitting activities that require dewatering can impose regulations such that the volume of water extracted is limited to the amount reasonably required to enable construction and that the water is reused when practical. For example, in District staff's view the City of Palo Alto has been reasonable in imposing requirements, such as fill stations, to use dewatered shallow groundwater when practical. Discharges to creeks or other surface water bodies are regulated through the National Pollution Discharge Elimination System (NPDES) to protect the quality of the receiving water body, and various Regional Water Quality Control Boards implementing those permits require the reuse of water when practical.

For *temporary* dewatering sites, the potential to expand reuse beyond localized irrigation or fill stations is generally hindered by the lack of infrastructure to capture, store, and move water. In case-by-case situations, water quality concerns may also be a sufficient reason to limit reuse. Given the limited duration of dewatering, the costs and potential environmental impacts of moving relatively large volumes of water from dewatering sites to where it can be used should be considered.

The potential for reuse from *ongoing* dewatering sites is more feasible compared to temporary sites, but is not without challenges. The feasibility of using shallow groundwater for beneficial use has been explored through the District's Water Supply Master Plan and other efforts, but has not been recommended for implementation due to high infrastructure and treatment costs, uncertain long-term yield, and other challenges. Because ongoing, larger dewatering discharges are typically to creeks, potential fishery or environmental impacts from reduced discharges are also a

factor requiring consideration.

### Next Steps

Staff continues to work to obtain available dewatering information from land use agencies, Regional Water Quality Control Boards, and known dischargers. San Francisco Bay Regional Board staff recently committed to provide data on various NPDES permits related to dewatering, including permitted discharge rates.

Staff will continue to evaluate the interaction of shallow groundwater with surface water and with deeper, principal aquifers that support the majority of pumping for beneficial use. The District has committed to improve our understanding of these interactions as we work to develop the next update of our Groundwater Management Plan by December 2021 for Sustainable Groundwater Management Act (SGMA) compliance. This complex issue will require significant study and coordination with interested stakeholders.

### Staff Recommendation

While there is no simple solution to reduce dewatering discharges or expand related reuse, the options presented, or alternative options, could be further explored based on Committee direction. To further evaluate this issue while minimizing impacts to water utility ratepayers, staff recommends the following actions:

- Evaluate the extent of dewatering by obtaining and analyzing available information from land use and regulatory agencies.
- If ongoing dewatering sites with significant and consistent yield are identified, determine what resources would be needed to explore potential reuse options and related environmental impacts.
- Further explore shallow groundwater interactions with surface water and with principal aquifers in coordination with stakeholders as part of SGMA compliance.
- Encourage land use agencies to minimize dewatering discharges and to require reasonable reuse in permitting activities requiring dewatering.

### **ATTACHMENTS:**

None

### **UNCLASSIFIED MANAGER:**

Garth Hall, 408-630-2750