

March 15, 2019

## **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  
Kurt Arends, Deputy Operating Officer, Raw Water Operations & Maintenance  
Division  
Garth Hall, Deputy Operating Officer, Water Supply Division  
Bhavani Yerrapotu, Deputy Operating Officer, Treated Water Operations & Maintenance  
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, Assistant Officer, Water Supply Division  
Vanessa De La Piedra, Groundwater Management Manager, Groundwater Monitoring and  
Analysis Unit  
Metra Richert, Senior Water Resources Specialist  
Karen Koppett, Senior Water Conservation Specialist

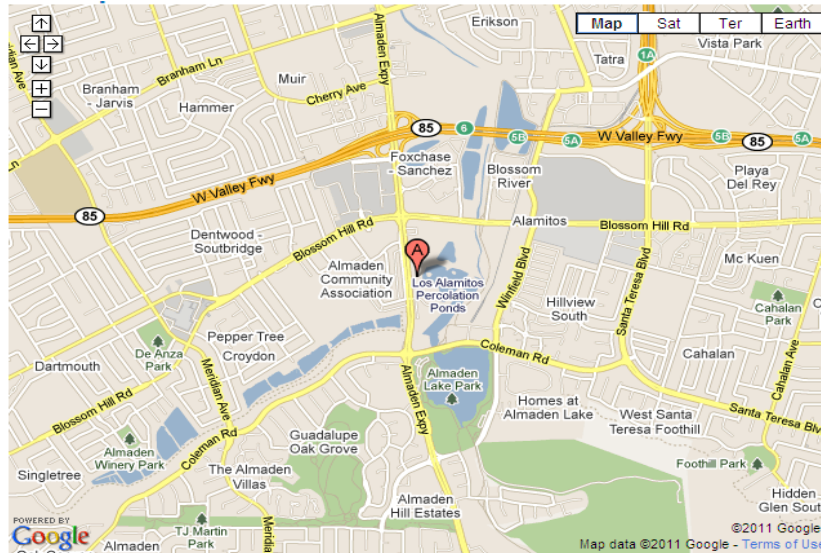
The regular meeting of the Water Conservation and Demand Management Committee is scheduled to be held on **Monday, March 25, 2019, at 12:00 p.m.** in the Headquarters Building Boardroom, located at the Santa Clara Valley Water District, 5700 Almaden Expressway, San Jose, California.

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  
Committee Meeting**

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

**REGULAR MEETING  
AGENDA**

**Monday, March 25, 2019  
12:00 PM**

**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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Monday, March 25, 2019

12:00 PM

HQ Boardroom,  
5700 Almaden Expressway, San Jose CA 95118

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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.

[19-0254](#)

Recommendation: Approve the February 15, 2019, Meeting Minutes

Manager: Michele King, 408-630-2711

Attachments: [Attachment 1: 021519 WCaDM Comm DRAFT Mins](#)

Est. Staff Time: 5 Minutes

**4. ACTION ITEMS:**

4.1. Fixed/Variable Charges.

[19-0255](#)

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

Manager: Darin Taylor, 408-630-3068

Est. Staff Time: 20 Minutes



- 4.2. Stormwater Resources Plan (SWRP) Green Stormwater Infrastructure - Upper Penitencia Concept. [19-0256](#)
- Recommendation: This is a discussion item and the Water Conservation and Demand Management Committee (Committee) may provide comments. However, no action is required.
- Manager: Vincent Gin, 408-630-2633
- Attachments: [Attachment 1: Green Stormwater Infrastructure Concept Upper Pe](#)
- Est. Staff Time: 20 Minutes

- 4.3. Review Water Conservation and Demand Management Committee Work Plan, the Outcomes of Board Action of Committee Requests; and the Committee's Next Meeting Agenda.. [19-0258](#)
- Recommendation: Review the Committee work plan to guide the committee's discussions regarding policy alternatives and implications for Board deliberation.
- Manager: Michele King, 408-630-2711
- Attachments: [Attachment 1: WCaDM 2019 Work Plan](#)  
[Attachment 2: WCaDM Next Meeting 2019 Draft Agenda](#)
- Est. Staff Time: 5 Minutes

**5. 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.*

**6. ADJOURN:**

- 6.1. Adjourn



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**File No.:** 19-0254

**Agenda Date:** 3/25/2019  
**Item No.:** 3.1.

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## COMMITTEE AGENDA MEMORANDUM

### Water Conservation and Demand Management

**SUBJECT:**

Approval of Minutes.

**RECOMMENDATION:**

Approve the February 15, 2019, 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: 021519 WCaDM Comm Draft Mins.

**UNCLASSIFIED MANAGER:**

Michele King, 408-630-2711





WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE MEETING

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# DRAFT MINUTES

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**FRIDAY, FEBRUARY 15, 2019  
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 February 15, 2019, in the Headquarters Building Conference Room A143 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, Rick Callender, Jerry De La Piedra, Vanessa De La Piedra, Vicki Elam, Samantha Greene, Bassam Kassab, Karen Koppett and Bhavani Yerrapotu.

Guests in attendance were: Brian Boyer, Anthony Eulo, Charles Ice, Esther Nigenda, Curt Rayer, Adam Schiro, William Sherman, Bill Tuttle and Rita Vrhel.

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

Ms. Rita Vrhel and Ms. Esther Nigenda spoke about dewatering, shallow/deep water and handed out two items on: Planning For Rising Waters: Sea Level, Groundwater and Bay Edge Presentation and City of Palo Alto Dewatering Monitoring Chart.

**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 October 31, 2018, Water Conservation and Demand Management Committee meeting as presented.

**4. ELECTION OF CHAIR AND VICE CHAIR**

**4.1 ELECTION OF CHAIR AND VICE CHAIR**

It was moved by Director Nai Hsueh, seconded by Director Linda J. LeZotte and unanimously carried, to retain Director Richard P. Santos as Chair and Director Linda J. LeZotte as Vice Chair. Note: *The election of chair and vice chair does not apply to this committee.*

**5. ACTION ITEMS**

**5.1 REVIEW AND APPROVE 2018 ANNUAL ACCOMPLISHMENTS REPORT FOR PRESENTATION TO THE BOARD**

Director Nai Hsueh reviewed the materials as outlined in the agenda item. The Committee was pleased with the accomplishments for 2018 and would like to retain some of the same subjects for 2019.

No action was taken.

**5.2 WATER SUPPLY MASTER PLAN CONSERVATION AND STORMWATER CAPTURE PROJECT UPDATE**

Ms. Samantha Greene and Mr. Jerry De La Piedra reviewed the materials as outlined in the agenda items.

Directors Nai Hsueh, Richard P. Santos, Linda J. LeZotte, Mr. Anthony Eulo, Mr. Curt Rayer, Ms. Esther Nigenda, and Mr. Charles Ice had questions and spoke regarding the following issues: AMI equity/fairness in funding through groundwater charges, available training, special detergents, maintenance capabilities, cost savings, outreach and following up with customers, Model Ordinance, artificial turf, benefits of agricultural water and open space.

Ms. Karen Koppett and Ms. Vanessa De La Piedra were available to answer questions.

No action was taken.

**5.3 SUSTAINABLE GROUNDWATER MANAGEMENT ACT BASIN PRIORITIZATION UPDATE**

Mr. Bassam Kassab and Ms. Vanessa De La Piedra reviewed the materials as outlined in the agenda items.

There were questions and concerns by Directors Richard P. Santos and Nai Hsueh, Mr. Charles Ice and Mr. Anthony Eulo on the following: DWR's new name for the sub basin, Pacheco Dam impact, climate change, seal level rise assessment and clarification on the answer to Mr. Doug Muirhead's 6/25/18, meeting question which was addressed in the agenda memo.

No action was taken.

**5.4 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**

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

It was noted that the fixed/variable rates item was ready for March 25, 2019, meeting. Please combine work plan items #3 and #8 since they are similar {Water Supply Master Plan Conservation and Stormwater Capture Project Update and Water Supply Master Plan "No Regrets" Programs}.

Add the following to 2019's work plan:

1. Stormwater Resources Plan (SWRP) Green Stormwater Infrastructure - Upper Penitencia Concept
2. Update on State's effort to Make Water Conservation a California Way of Life
3. Shallow Groundwater Dewatering
4. Update on Water Conservation Options for Agriculture ("Reality vs Talk") (Ag Plan)
5. Update on Climate Change Action Plan
6. Update on Model Ordinance

- 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 11:32 a.m. to the next scheduled meeting on Monday, March 25, 2019, at 12:00 p.m. in the Headquarters Building Boardroom, at 5700 Almaden Expressway, San Jose, California.

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

Approved:





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**File No.:** 19-0255

**Agenda Date:** 3/25/2019

**Item No.:** 4.1.

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## COMMITTEE AGENDA MEMORANDUM

### Water Conservation and Demand Management

**SUBJECT:**

Fixed/Variable Charges.

**RECOMMENDATION:**

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

**SUMMARY:**

The District currently charges customers solely on the volume of water used, most California water providers-and all the District's retailers-have rate structures that incorporate a fixed charge with a volumetric charge. Like most utilities in California, the District required mandatory conservation during the drought and continues to ask its customers to use water efficiently. The District's current rate structure is challenging during drought because revenues plummet with reduced water sales, and the resulting volatility required the District to raise rates significantly higher than planned.

California's Sustainable Groundwater Management Act (SGMA) gave the District additional authority to regulate groundwater pumping and new authority to assess different types of groundwater charges. In 2016, the District agreed to evaluate these new authorities in cooperation with water retailers and stakeholders to determine if implementation would help the District more sustainably manage groundwater into the future.

The District engaged Raftelis to develop a fixed charge proposal and assist with implementation. Although progress was made in developing a model that could be used to analyze the impacts of a fixed charge, it became very clear after a couple of meetings that the majority of retailers strongly opposed the implementation of a fixed charge. Staff recommended suspending the effort to the Water Conservation and Demand Management Committee on October 31, 2018 and to the full Board on November 27, 2018. The Water Conservation and Demand Management Committee requested an update on the effort at a future meeting, which is the purpose of this agenda item. Below is a summary of the key reasons cited by retailers for their opposition:

- 1. Take or pay contracts** for treated water are perceived as redundant to a fixed charge. Several retailers expressed interest in opening the treated water contracts and removing the take or pay provision to gain support for the fixed charge.
- 2. Mid-year increase capability** already exists to address impacts of drought, which is a tool that negates the need for a fixed charge.
- 3. Revenue neutrality skepticism** was a concern in that the District may not be able to achieve it, or may not be able to achieve it equitably amongst all the retailers.

4. **SGMA authority** for a fixed charge for treated water was a concern. Retailers could see the SGMA authority connection to groundwater charges but struggled with the connection to treated water even though the groundwater and treated water systems are intrinsically linked.
5. **Applying a fixed charge to major customers only** was a big concern. Many well owners are small unmetered water users, and attempting to apply a fixed charge to unmetered customers who pay annually or semiannually does not make practical sense and would be administratively burdensome. But this was seen as an equity issue for the retailers. If the District implemented a fixed charge, then every customer should pay it.
6. **Impact to CPUC regulated retailers.** Both San Jose Water Company and Great Oaks Water Company have what is called “incremental cost balancing accounts” (this is not applicable to California Water Service Company that has a full cost balancing account), which only allows recovery of incremental per unit cost changes of purchased treated water and groundwater extraction on an actual usage basis. Thus, a fixed charge would not allow cost recovery under the current arrangement with the CPUC. CPUC regulated retailers have to file a rate case, which allows for future recovery at the time the District implements the price change (July of each year) at which time the actual unit price, for recovery purposes, would be uncertain with the implementation of a fixed charge. For a publicly traded company like SJW, this would complicate financial reporting since balancing accounts are booked. The obvious solution to this would be for the CPUC to allow conversion to a full cost balancing account, however that has been denied for both companies several times over the last decade.

Staff had hoped that this effort would result in a “win-win” for both the District and the retailers (revenue stability for the District and cost stability for the retailers). If it is not possible to achieve a “win-win”, then staff would not recommend further pursuit of a fixed charge.

**ATTACHMENTS:**

None

**UNCLASSIFIED MANAGER:**

Darin Taylor, 408-630-3068

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**File No.:** 19-0256

**Agenda Date:** 3/25/2019

**Item No.:** 4.2.

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## COMMITTEE AGENDA MEMORANDUM

### Water Conservation and Demand Management

**SUBJECT:**

Stormwater Resources Plan (SWRP) Green Stormwater Infrastructure - Upper Penitencia Concept.

**RECOMMENDATION:**

This is a discussion item and the Water Conservation and Demand Management Committee (Committee) may provide comments. However, no action is required.

**SUMMARY:**

On Monday, February 25, 2019, the Santa Clara Valley Water District (Valley Water) Water Supply and Conservation Unit staff updated the Committee on the suite of conservation and stormwater capture projects that are in the Water Supply Master Plan. The project suite update included a discussion of the Stormwater Resources Plan, which includes the Upper Penitencia Creek Green Stormwater Infrastructure Project (SIP). The Committee requested a review and status update for the Upper Penitencia Flood Risk Reduction Project, which includes the SIP. This memo provides a general description of the Upper Penitencia Flood Risk Reduction Project, status, next steps, and the coordination between water utility and watersheds.

The Upper Penitencia Flood Risk Reduction Project is a multi-objective capital project which will provide flood risk reduction along with the additional benefits of supporting and improving ecological processes and functions, maintaining and enhancing water supply, and improving recreational opportunities. The project reach is Upper Penitencia Creek from its Coyote Creek confluence up to Dorel Drive just downstream of Alum Rock Park. The capital project is currently in the planning phase with the project team working on alternatives development, and a draft Planning Study Report is scheduled to be completed by the end of June 2019. The alternatives being developed include elements such as floodplain bench widening, setback floodwalls and berms, and flood detention basins. A multi-discipline Valley Water project team has met regularly to discuss project concepts and alternatives.

The SIP is a stormwater component of the overall Upper Penitencia Flood Risk Reduction Project. Stormwater capture projects must be included in a Stormwater Resources Plan to be eligible for grant funds from any voter-approved State bonds. Valley Water submitted the SIP to the Bay Area Stormwater Resources Plan. Project concepts submitted to the Stormwater Resources Plan were prioritized using metrics to assess their benefits including: water quality improvements, water supply (capture and use), flood management benefits, and environmental and community benefits. The SIP concept scored highly and was chosen for conceptual design. The concept design for the SIP

included coordination, which will continue, between Water Utility, Watersheds, the Santa Clara County, and the City of San Jose.

The SIP project location is at the Penitencia Creek City Park, adjacent to the creek near the intersection of Penitencia Creek Road and Piedmont Avenue. The preliminary design includes a subsurface cistern to capture runoff from city drainage to irrigate the proposed sports fields (includes pretreatment of water). An approximately 5-acre lawn area will serve as detention storage for overflow during floods. There is a tri-party agreement between Valley Water, the City of San Jose, and the Santa Clara County for the joint-use of public land along Upper Penitencia Creek. This agreement helps us coordinate with the City and County to design stormwater and flood protection concepts that meet all the tri-party partners' needs.

**ATTACHMENTS:**

Attachment 1: Green Stormwater Infrastructure Concept Design Fact Sheets

**UNCLASSIFIED MANAGER:**

Vincent Gin, 408-630-2633



A topographic map of a city area, likely Seattle, showing a grid of streets, major roads, and water bodies. The map is overlaid with a semi-transparent white box containing text. Several green dots are scattered across the map, indicating specific locations. Blue lines represent water features, including a large body of water in the upper left and various streams and rivers throughout the city. The text is positioned in the lower right quadrant of the map.

**GREEN  
STORMWATER  
INFRASTRUCTURE  
CONCEPT DESIGN  
FACT SHEETS**

# UPPER PENITENCIA CREEK REGIONAL STORMWATER CAPTURE CONCEPT

*Santa Clara Valley Water District*

## CONCEPT DESCRIPTION

Penitencia Creek Park serves as a recreational hub along the 2.8-mile Penitencia Creek Trail system that connects open space, public facilities, and natural habitat along Upper Penitencia Creek. The 40-acre park contains trails, open space, a seasonal pond, and the Berryessa Community Center and is bordered by an elementary school, middle school, and a wildlife center. The park consists of San Jose (City), County of Santa Clara (County), and Santa Clara Valley Water District (District) land and is maintained by the City.

The open space at the park is an ideal site to house a multi-benefit subsurface cistern that will capture dry-weather and wet-weather runoff from a collective drainage area of 147 acres within San Jose. The drainage area is captured by two separate storm drains, with 38 acres of drainage east of the site and another 109 acres southeast. From the storm drains to the cistern, a gravity diversion can likely be achieved, avoiding expensive capital and O&M costs associated with a pump station. However, a diversion line from the storm drain serving the larger 109-acre area will need to be routed underneath Upper Penitencia Creek using horizontal directional drilling to avoid disturbing the creek bed during construction.

The proposed 7.5 acre-foot stormwater cistern will serve two end uses by utilizing captured stormwater for irrigation at the park and augmenting groundwater supply through infiltration of any excess captured runoff. The site is near percolation ponds owned by the District, and soil survey data shows that expected infiltration rates are likely conducive to infiltration. The proposed 2.5-acre footprint for the water quality treatment area is in an open space that is being considered for

placement of a cricket field by the San Jose Parks, Recreation & Neighborhood Services department. The treatment facility would occupy most of the area underneath the field. The system would include an integrated high-efficiency subsurface irrigation system that would serve the new cricket field and fully offset potable water use for irrigation of the field. Flows from both of the diversion pipes will be routed through a pretreatment device (e.g., hydrodynamic separator) upstream of the cistern to remove trash & debris, floatables, and coarse solids. The pretreatment device will serve as a concentrated maintenance point and will minimize O&M requirements of the cistern.

In addition to the hybrid cistern/infiltration chamber, the 5-acre naturalized lawn area west of the proposed cistern, which forms a natural basin, will serve as detention storage for overflow during flood events. First, overflow from the cistern/infiltration basin will be routed through the existing pond to the north then, once the pond is full, water will overflow a spillway from the pond down into the basin. Excess flows will be detained and released slowly through a filtration chamber discharging back to the creek, helping to alleviate flooding in the downstream neighborhoods, which is reported by the City, County, and District to occur every 5-10 years. Appropriate filtration solutions will be investigated if this concept is advanced into design development. The project would provide water quality, water supply, flood control, and recreational benefits to the community. The system is projected to provide 98% treatment of the average annual runoff from the 147-acre catchment, full trash capture, and 96% reduction of pollutant loads on an annual basis.

## CONCEPT METRICS

### WATERSHED CHARACTERISTICS

Watershed	<b>COYOTE CREEK</b>
Drainage Management Area	<b>147 AC</b>
% Impervious of DMA	<b>56</b>
Total Runoff Volume	<b>49.6 AC-FT/YR</b>

### CISTERN

CISTERN	
Facility Footprint	<b>2.5 AC X 3' DEPTH</b>
Storage Volume	<b>7.5 AC-FT</b>

### FLOOD CONTROL BASIN

Facility Footprint	<b>5.0 AC x 3' DEPTH</b>
Storage Volume	<b>15.0 AC-FT</b>

### DESIGN CRITERIA

Total Storage Volume	<b>22.5 AC-FT</b>
Infiltration Rate	<b>1.6 IN/HR</b>
Total Runoff Captured	<b>49.0 AC-FT/YR (99%)</b>



# CONCEPT SITE DRAINAGE AREA



**LEGEND**

- Site Parcel
- Creek / Channel
- Storm Drain Network
- Santa Clara Valley Water District Land
- Potential Drainage Area
- Catch Basins
- Santa Clara County Land
- City of San Jose Land





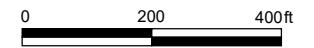
# UPPER PENITENCIA CREEK REGIONAL STORMWATER CAPTURE CONCEPT

## CONCEPT BASEMAP

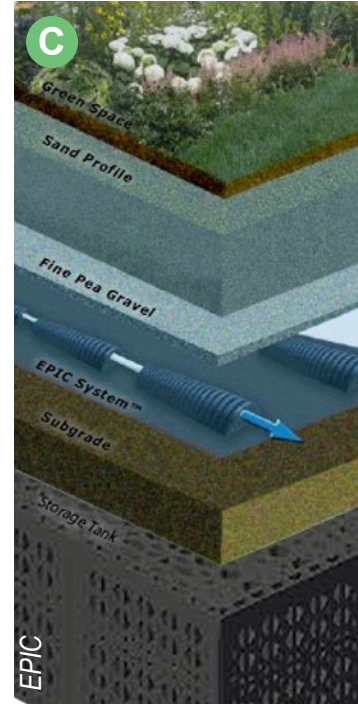


### LEGEND

- Sub-surface Cistern
- Surface Flood Control
- Creek Channel
- Creek Outfall
- Catch Basins
- Storm Drain Network
- ➔ Flow Direction
- Diversion Pipe
- - - Representative Diversion Pipe to Creek Outfall
- A See Precedent Image on Next Page







(A) Planned Cricket Field Location in the Park  
 (B) EPIC Fields with Subsurface Cistern (Cambria Middle School)  
 (C) Profile of Landscaping, Sand Layer, Irrigation System, Liner, & Cistern

(D) With Minimal Earthwork, a Natural Basin at the West End of the Park will Provide Flood Control

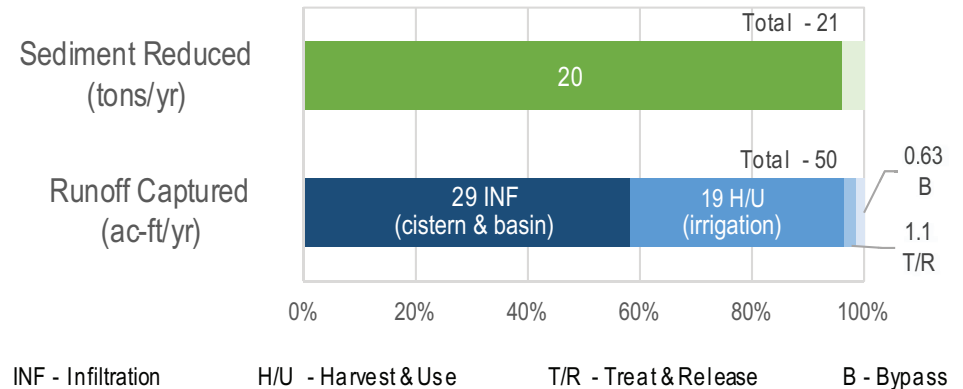
# UPPER PENITENCIA CREEK REGIONAL STORMWATER CAPTURE CONCEPT

## BUDGET-LEVEL COST ESTIMATES

DESCRIPTION	UNIT COST	UNIT	QUANTITY	SUBTOTAL
Utilities Protection/Relocation	\$50,000	LS	1	\$50,000
Manhole Replacement/Installation	\$15,000	LS	4	\$60,000
Horizontal Direct Drilling (24" Pipe)	\$400	LF	500	\$200,000
Diversion Pipe (24" RCP)	\$300	LF	1,700	\$510,000
Hydrodynamic Separator	\$150,000	EA	2	\$300,000
Earthwork Land Forming	\$50	CY	11,300	\$565,000
EPIC Irrigation System	\$18	SF	108,900	\$1,960,200
Subsurface Cistern	\$1.50	GAL	2,440,000	\$3,660,000
Cartridge Filtration Units	\$200,000	EA	2	\$400,000
Overflow Structure & Pipe to Ex. Pond	\$50,000	LS	1	\$50,000
Spillway - Pond to Floodable Space	\$150,000	LS	1	\$150,000
Surface Restoration & Planting	\$3	SF	218,000	\$654,000
Connection to Existing Creek Outfall	\$75,000	LS	1	\$75,000
<b>CONSTRUCTION SUBTOTAL</b>				<b>\$8,634,000</b>
Mobilization (10% Construction)				\$863,000
Contingency (30% Construction)				\$2,590,000
Design (12% Total)				\$1,450,000
<b>TOTAL PROJECT COST (DESIGN + CONSTRUCTION)</b>				<b>\$13,537,000</b>

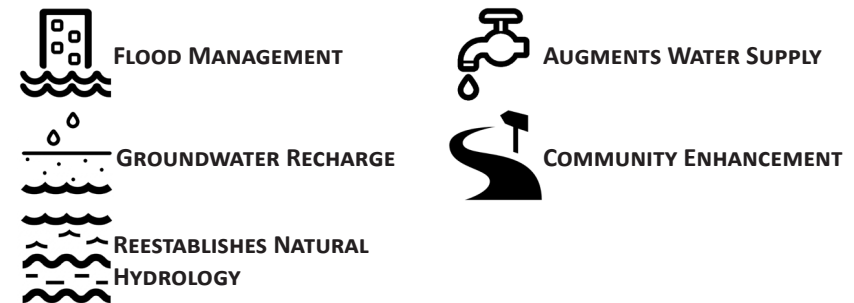
\* These are planning-level cost estimates (\$2018) for project design and construction. Costs do not include project administration or management by the sponsor agency, or post-construction operations and maintenance.

## CONCEPT EFFECTIVENESS (ANNUAL AVERAGE)



- Effectiveness is defined as the modeled ability of the proposed project to capture stormwater runoff from the management area, remove the identified constituents from that stormwater, and infiltrate or reuse the captured water.
- For planning purposes, recharge is approximated as being equivalent to infiltration if the project is located in the groundwater recharge zone.

## ADDITIONAL POTENTIAL BENEFITS



## ADDITIONAL CONSIDERATIONS

This project concept is planning-level and subject to revision as additional information becomes available. Factors to be considered include but are not limited to the following:

- » Infiltration Potential. This project is in a designated recharge area. The map of Depth to First Groundwater for the Santa Clara Basin in Appendix A of the SCVURPPP C.3 Stormwater Handbook shows depth to groundwater in the range of 50-100 feet; therefore, no conflicts with groundwater are anticipated. The NRCS SSURGO database lists soils in the project area as having an infiltration capacity of 2.83-4.98 in/hr. Site-specific infiltration tests should be performed at a depth corresponding to the base of the infiltration facility during early design so that facilities are properly designed and adequately drained. Design of recharge facilities will be advanced in coordination with the District's groundwater teams and their Water Supply Master Plan.
- » Flood Reduction. The project is in an area that has experienced severe flooding, according to the District flood reports over the last 10 years, and may alleviate flooding in downstream reaches. In addition to protecting public health and property, flood control has inherent water quality benefits by preventing stormwater from becoming contaminated when it inundates vehicles and buildings. The District, County, and City are currently working together on the Upper Penitencia Creek project which aims to reduce flood risk; maintain and enhance water supply; provide for trails and recreation; and maintain and improve the creek's habitat.
- » Utility Coordination. All utilities along Piedmont Rd should be evaluated for conflicts with the proposed storm drain diversions. Diversion lines may need to cross a 6" sanitary sewer line and 30" storm drain (Penitencia Ponds Canal) along Piedmont Rd and should be examined to determine the required separation. A section of the canal also lies below the proposed cistern footprint at an estimated depth of 12 ft. This depth should be confirmed to ensure adequate separation between the canal and the bottom of the cistern. The finished elevation of the cricket field may be raised to avoid conflict with the canal.
- » Stakeholder Coordination. The project site rests on City/County/District land and all three agencies should be engaged to ensure the project aligns with goals for the park. Coordination with the District is necessary to discuss the detention and slow release of flood waters from Upper Penitencia Creek. The Berryessa Union School District should be engaged to ensure that construction does not interfere with operations of the schools adjacent to the park.
- » Land Ownership. In addition to Santa Clara County and the City of San Jose owning lands within the park, the Santa Clara Valley Water District also owns an approximately 50-ft wide strip of land over the Penitencia Ponds Canal pipeline running east-west through the park. There is a tri-party Agreement for the Joint Use of Lands of the Upper Penitencia Creek Park Chain that presents an opportunity for all three agencies to work together on issues regarding public park, recreational, and flood control uses.
- » Potential Future Phase 2. There is additional park land downstream to the west of the main project area part of the agreement between the City, County, and District, where a potential phase 2 project could provide water quality treatment to storm drainage from approximately 20 acres in the neighborhood bounded by Stonecrest Way and Foxridge Way. Flows would be re-routed to the existing County open space in a surface-based, naturalized GI concept that would also incorporate an area to provide significant flood control benefits by managing overbank flows from the creek.

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**File No.:** 19-0258

**Agenda Date:** 3/25/2019

**Item No.:** 4.3.

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## COMMITTEE AGENDA MEMORANDUM

### Water Conservation and Demand Management

**SUBJECT:**

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

**SUMMARY:**

The attached Work Plan outlines the Board-approved 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.

Accordingly, the Board has established Advisory Committees, which bring respective expertise and community interest, to advise the Board, when requested, in a capacity as defined: prepare Board policy alternatives and provide comment on activities in the implementation of the District's mission for Board consideration. In keeping with the Board's broader focus, Advisory Committees will not direct the implementation of District programs and projects, other than to receive information and provide comment.

Further, in accordance with Governance Process Policy-3, when requested by the Board, the Advisory Committees may help the Board produce the link between the District and the public through information sharing to the communities they represent.

**ATTACHMENTS:**

Attachment 1: Water Conserv and Demand Mgmt Committee 2019 Work Plan

Attachment 2: Water Conserv and Demand Mgmt Committee Next Meeting's Draft Agenda



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**File No.:** 19-0258

**Agenda Date:** 3/25/2019  
**Item No.:** 4.3.

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

## 2019 Work Plan: Water Conservation and Demand Management Committee

Update: March 2019

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 2019	2-15-19	Discussion/Action Item	<b>Accomplished February 15, 2019:</b> The Committee voted to retain Director Richard P. Santos as Chair and Director Linda J. LeZotte as Vice Chair for 2019; <i>{note the election of chair and vice chair does not apply to this committee}</i> .
2	Water Conservation and Demand Management Committee 2018 Accomplishments Report	2-15-19	Discussion/Action Item	<b>Accomplished February 15, 2019:</b> The Committee reviewed the 2018 work plan accomplishments and were pleased with their 2018 accomplishments.
3	Water Supply Master Plan Conservation and Stormwater Capture Project Update	2-15-19	Discussion/Action Item	<b>Accomplished February 15, 2019:</b> The Committee received a presentation Water Supply Master Plan Conservation and Stormwater Capture Project Update and took no action.
	Water Supply Master Plan "No Regrets" Programs	Next meeting		
4	Sustainable Groundwater Management Act Basin Prioritization Update	2-15-19	Discussion/Action Item	<b>Accomplished February 15, 2019:</b> The Committee received a presentation Sustainable Groundwater Management Act Basin Prioritization Update and took no action.

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

Attachment 1  
Page 1 of 2

# 2019 Work Plan: Water Conservation and Demand Management Committee

Update: March 2019

ITEM	WORK PLAN ITEM	MEETING	ACTION/DISCUSSION OR INFORMATION ONLY	ACCOMPLISHMENT DATE AND OUTCOME
5	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	2-15-19 3-25-19	Discussion/Action Item	<b>Accomplished February 15, 2019:</b> The Committee received an overview of the 2019 work plan and took no action.
6	Fixed/variable charges	3-25-19	Discussion/Action Item	
7	SWRP Green Stormwater Infrastructure – Upper Penitencia Concept	3-25-19	Discussion/Action Item	
8	Update on State's effort to Make Water Conservation a California Way of Life	next meeting	Discussion/Action Item	
9	Shallow Groundwater Dewatering	TBD	Discussion/Action Item	
10	Current Water Conservation Programs and Resources	TBD	Discussion/Action Item	
11	Update on Water Conservation Options for Agriculture (“Reality vs Talk”) (Ag Plan)	TBD	Discussion/Action Item	
12	Update on Climate Change Action Plan	TBD	Discussion/Action Item	
13	Update on Model Ordinance	TBD	Discussion/Action Item	

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

Attachment 1  
Page 2 of 2

**DRAFT AGENDA**

**WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE**

(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 – March 25, 2019, meeting
4. **Discussion/Action Items**
  - 4.1 Water Supply Master Plan “No Regrets” Programs (Jerry De La Piedra)  
**Recommendation: This is a discussion item and the Committee may provide comments. However, no action is required.**
  - 4.2 Update on State’s effort to Make Water Conservation a California Way of Life (Jerry De La Piedra)  
**Recommendation: This is a discussion item and the Committee may provide comments. However, no action is required.**
  - 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 (Committee Chair)  
**Recommendation: Review of Water Conservation and Demand Management Committee Work Plan, any Outcomes of Board Action or Committee Requests and the Committee’s Next Meeting Agenda.**
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: 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.