

July 1, 2019

**MEETING NOTICE & REQUEST FOR RSVP****TO: ENVIRONMENTAL AND WATER RESOURCES COMMITTEE**

<b><u>Jurisdiction</u></b>	<b><u>Representative</u></b>	<b><u>Representative</u></b>	<b><u>Representative</u></b>
District 1	Bonnie Bamburg	Loren Lewis	Rita Norton
District 2	Charles Ice	Elizabeth Sarmiento	
District 3	Hon. Dean Chu	Rev. Jethroe Moore, II	Charles Taylor
District 4	Susan Blake	John Bourgeois	Bob Levy
District 5	Hon. Tara Martin-Milius	Mike Michitaka	Marc Rauser
District 6	Hon. Patrick S. Kwok		
District 7	Tess Byler	Arthur M. Keller, Ph.D.	Stephen A. Jordan

The regular meeting of the Environmental and Water Resources Committee is scheduled to be held on **Monday, July 15, 2019, at 6:00 p.m.** in the Headquarters Building Boardroom located at the Santa Clara Valley Water District, 5700 Almaden Expressway, San Jose, California. Dinner will be served.

Enclosed are the meeting agenda and corresponding materials. Please bring this packet with you to the meeting. Additional copies of this meeting packet are available on-line at <https://www.valleywater.org/how-we-operate/committees/board-advisory-committees>

A majority of the appointed membership is required to constitute a quorum, which is fifty percent plus one. A quorum for this meeting must be confirmed at least 48 hours prior to the scheduled meeting date or it will be canceled.

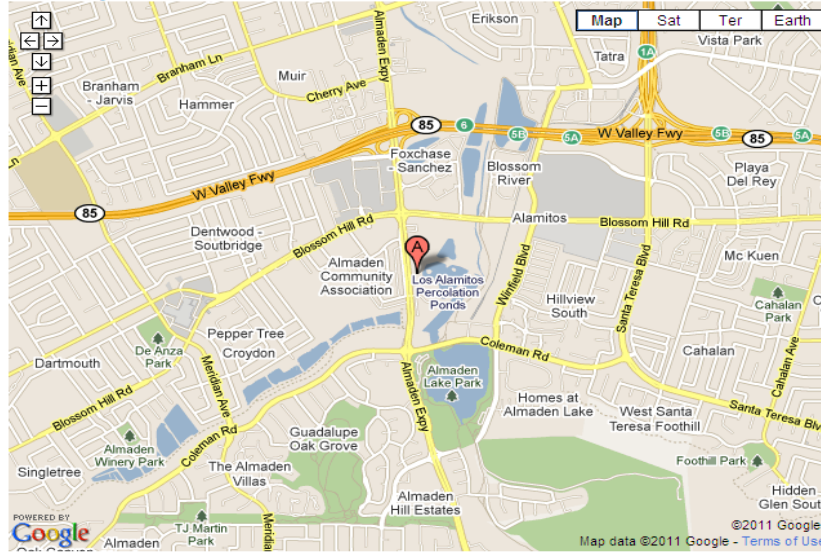
Further, a quorum must be present on the day of the scheduled meeting to call the meeting to order and take action on agenda items.

Members with two or more consecutive unexcused absences will be subject to rescinded membership.

Please confirm your attendance **no later than Thursday, July 11, 2019, 4:30 p.m.** by contacting Ms. Glenna Brambill at 1-408-630-2408, or [gbrambill@valleywater.org](mailto:gbrambill@valleywater.org).

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 Environmental and Water Resources Committee Meeting**

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

## **REGULAR MEETING AGENDA**

**Monday, July 15, 2019  
6:00 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**  
**Environmental and Water Resources Committee**  
**REGULAR MEETING**  
**AGENDA**

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Monday, July 15, 2019

6:00 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.

[19-0622](#)

Recommendation: Approve the April 15, 2019, Meeting Minutes.

Manager: Michele King, 408-630-2711

Attachments: [Attachment 1: 041519 EWRC DRAFT Mins](#)

Est. Staff Time: 5 Minutes

**4. INFORMATION ITEMS:**



Recommendation: A. For the Environmental and Water Resources Committee to receive information on the Board's priorities on the following subjects:

1. Finalize the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE). (Assigned to FAHCE) *Nothing to report at this time!*
2. Actively Pursue Efforts to Increase Water Storage Opportunities. (Assigned to Water Storage Exploratory Committee) *See Attachment 1.*
3. Actively Participate in Decisions Regarding the California Delta Conveyance. (Assigned to California Delta Conveyance Working Group) *Nothing to report at this time!*
4. Lead Recycled and Purified Water Efforts with the City of San Jose and Other Agencies. (Assigned to Recycled Water Committee) *Valley Water and Cities of Palo Alto and Sunnyvale have been discussing recycled and purified water expansions. During the Joint Recycled Water Policy Advisory Committee meeting on Dec. 3, 2018, Cities of San Jose and Santa Clara have plans to expand the Recycled Water systems in their service areas as well as the City of Milpitas.*
5. Engage and educate the community, local elected officials and staff on future water supply strategies in Santa Clara County. (Assigned to Water Conservation and Demand Management Committee) *Nothing to report at this time!*
6. Advance Anderson Dam Seismic Retrofit Project. (Assigned to Capital Improvement Program Committee) *Nothing to report at this time!*
7. Provide for a Watershed-Wide Regulatory Planning and Permitting Effort. (Assigned to FAHCE) *Nothing to report at this time!*
8. Attain net positive impact on the environment when implementing Valley Water's mission. *Nothing to report at this time!*
9. Promote the protection of creeks, bay, and other aquatic ecosystems from threats of pollution and degradation (E-4.1.3). (Assigned to Homeless Encampment Ad Hoc Committee) *Nothing to report at this time!*
10. Advance Diversity and Inclusion Efforts. Carry forward to

FY20. (Assigned to Diversity and Inclusion Ad Hoc Committee) *Nothing to report at this time!*

11. Understand if the level of services Valley Water provides to the public are reasonable and the costs of providing services are affordable and effective. (Assigned to Revenue Working Group) *The Group has started working on this, however, there is nothing to report at this time!*

B. This is informational only and no action is required.

Manager: Michele King, 408-630-2711  
Attachments: [Attachment 1: #2 WSEC Report](#)  
Est. Staff Time: 10 Minutes

## 5. ACTION ITEMS:

- 5.1. Update on Water Supply Master Plan [19-0624](#)

Recommendation: This is a discussion item and no action is required. However, the Committee may make recommendations for Board consideration.

Manager: Jerry De La Piedra, 408-630-2257  
Attachments: [Attachment 1: Staff Presentation](#)  
[Attachment 2: Risk Ranking Report](#)  
[Attachment 3: Draft Implementation Schedule](#)  
Est. Staff Time: 20 Minutes

- 5.2. Discuss Policy Framework and Outreach Plan for Use of Santa Clara Valley Water District Property for Trails. [19-0625](#)

Recommendation: This is a discussion item and no action is required. However, the Committee may make recommendations for Board consideration.

Manager: Lisa Bankosh, 408-630-2618  
Attachments: [Attachment 1: PowerPoint](#)  
[Attachment 2: June 2018 Trails Summit Attendees and Summary](#)  
[Attachment 3: PLACEHOLDER Board Correspondence Recieved Since Trail Summit](#)  
Est. Staff Time: 20 Minutes

- 5.3. Update from Environmental and Water Resources Committee's Working Groups. [19-0626](#)

Recommendation: Provide comments to the Board on implementation of District mission applicable to working groups' recommendations.

Manager: Michele King, 408-630-2711

Attachments: [Attachment 1: 2019 Working Groups Spreadsheet](#)

Est. Staff Time: 5 Minutes

- 5.4. Review Environmental and Water Resources Committee (EWRC) Work Plan, the Outcomes of Board Action of Committee Requests; and the Committee's Next Meeting Agenda. [19-0627](#)

Recommendation: Review the EWRC work plan to guide the commission's discussions regarding policy alternatives and implications for Board deliberation.

Manager: Michele King, 408-630-2711

Attachments: [Attachment 1: 2019 EWRC Work Plan](#)  
[Attachment 2: 102119 EWRC Draft Agenda](#)

Est. Staff Time: 5 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. REPORTS:**

- 7.1. Director's Report
- 7.2. Manager's Report
- 7.3. Committee Member Report
- 7.4. Link to Informational Reports - **None**

**8. ADJOURN:**

- 8.1. Adjourn to Regular Meeting at 6:00 p.m., on October 21, 2019, in the Santa Clara Valley Water District HQ Boardroom, 5700 Almaden Expressway, San Jose, California.

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# Santa Clara Valley Water District

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**File No.:** 19-0622

**Agenda Date:** 7/15/2019

**Item No.:** 3.1.

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## COMMITTEE AGENDA MEMORANDUM

### Environmental and Water Resources Committee

**SUBJECT:**

Approval of Minutes.

**RECOMMENDATION:**

Approve the April 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: 041519 EWRC Draft Mins.

**UNCLASSIFIED MANAGER:**

Michele King, 408-630-2711

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ENVIRONMENTAL AND WATER RESOURCES COMMITTEE MEETING

# DRAFT MINUTES

**MONDAY, APRIL 15, 2019  
6:00 PM**

(Paragraph numbers coincide with agenda item numbers)

A regular scheduled meeting of the Environmental and Water Resources Committee (Committee) Meeting was held on April 15, 2019, in the Headquarters Building Boardroom at the Santa Clara Valley Water District, 5700 Almaden Expressway, San Jose, California.

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

Chair Tess Byler called the meeting to order at 6:03 p.m.

Members in attendance were:

<b><u>District</u></b>	<b><u>Representative</u></b>
District 1	Loren Lewis, Rita Norton
District 2	Charles Ice, Elizabeth Sarmiento
District 3	Hon. Dean Chu, Rev. Jethroe Moore, II
District 4	Susan Blake*
District 5	Mike Michitaka, Marc Rauser*
District 6	Hon. Patrick S. Kwok
District 7	Tess Byler, Stephen A. Jordan, Arthur M. Keller, Ph.D. *

Members not in attendance were:

<b><u>District</u></b>	<b><u>Representative</u></b>
District 1	Bonnie Bamburg
District 3	Charles Taylor
District 4	John Bourgeois, Bob Levy
District 5	Hon. Tara Martin-Milius

Board members in attendance were: Director Nai Hsueh, Board Alternate and Director Linda J. LeZotte, Board Representative.

Staff members in attendance were: Joseph Atmore, Lisa Bankosh, Glenna Brambill, Anthony Fulcher, Vincent Gin, Garth Hall, Anthony Mendiola, Paul Randhawa, Afshin Rouhani and Darin Taylor.

Guest attendees were: Peter Drekmeier, Pat Ferraro, Shannon McEntee, Stephen Rosenblum and Dave Warner.

**2. PUBLIC COMMENT**

Mr. Peter Drekmeier, Mr. Pat Ferraro, Mr. Stephen Rosenblum, Ms. Shannon McEntee, and Mr. Dave Warner spoke on the following items: Drekmeier letter regarding the Bay Delta lawsuit, drought and rationing, water priority California appropriate water rights (senior/junior water right holders), fisheries, environmental concerns with lawsuit and recycled water.

\*Ms. Susan Blake arrived at 6:06 p.m., Mr. Marc Rauser arrived at 6:07 p.m. and Arthur M. Keller, Ph.D., arrived at 6:13 p.m.

**3. APPROVAL OF MINUTES**

It was moved by Arthur M. Keller, Ph.D., seconded by Hon. Patrick S. Kwok, and carried by majority vote to approve the January 28, 2019, Environmental and Water Resources Committee meeting minutes, as amended, noting that Hon. Kwok was in attendance and remove Elizabeth Sarmiento as attending. Ms. Susan Blake, Mr. Steve Jordan and Ms. Elizabeth Sarmiento abstained.

**4. 4.1 STANDING ITEMS REPORT**

Ms. Glenna Brambill, Director Nai Hsueh, Chair Tess Byler and Director Linda J. LeZotte explained the purpose of the new standing agenda item and the connection with the Board's priorities for the fiscal year.

Committee Members, Mr. Mike Michitaka, Mr. Steve Jordan, Hon. Dean Chu, Ms. Elizabeth Sarmiento, Ms. Rita Norton, Mr. Loren Lewis had questions on the following: learning Valley Water's financial picture, the new standing report's list is clear and concise, LVE project and environmental issues of Bay Delta lawsuit.

Mr. Garth Hall, Directors Nai Hsueh and Linda J. LeZotte were available to answer questions.

The Committee took no action.

**5. ACTION ITEMS**

**5.1 REVIEW AND COMMENT TO THE BOARD ON THE FISCAL YEAR 2019-20 PROPOSED GROUNDWATER PRODUCTION CHARGES**

Mr. Anthony Mendiola distributed the PAWS Report and reviewed the materials as outlined in the agenda item.

Committee Members, Mr. Marc Rauser, Hon. Patrick S. Kwok, Arthur M. Keller, Ph.D., Mr. Steve Jordan, Mr. Mike Michitaka, Ms. Rita Norton, Ms. Tess Byler, Mr. Charles Ice and Ms. Elizabeth Sarmiento, discussed the following: water service agreement pushes down costs/funding, P3 purified water status of Phase I and Phase 2-why is it being deferred, where do cost projection funds come from (diagram would be helpful), P3 purchased by unit or line by line, accrual or cash based, debt service, 2017 bar goes up-looking at future is different, special tax, capital projects, column on proposed max, where does subsidy come from, Pacheco or San Luis Reservoirs usable, encouraged to keep costs low, gold bars vs blue bars, adding San Jose Municipal Water and San Benito County in the benchmarking process, costs with rating bonds,



zones of benefit split. case studies, water conservation and agricultural incentives and risk analysis of water supply with earthquakes.

Mr. Garth Hall and Mr. Darin Taylor were available to answer questions.

The Committee took the following actions:

It was moved by Hon. Patrick S. Kwok, seconded by Mr. Steve Jordan, and carried by majority that the Environmental and Water Resources Committee approve that the Board of Directors consider the Committee's recommendation to approve the proposed groundwater production charge rates:

1. Staff proposes a 6.6% increase in the North County (Zone W-2) Municipal and Industrial groundwater production charge from \$1,289/AF to \$1,374/AF. The proposal equates to a monthly bill increase for the average household of \$2.93 or about 10 cents a day and,

In the South County (Zone W-5), staff proposes a 6.9% increase in the M&I groundwater production charge from \$450/AF to \$481/AF. The proposal equates to a monthly bill increase for the average household of \$1.07 or about 4 cents per day.

2. It was moved by Arthur M. Keller, Ph.D., seconded by Mr. Marc Rauser, and carried by majority that the Environmental and Water Resources Committee approve that the Board of Directors consider the Committee's approval of having staff supply additional financial data to the Committee for next year's analysis of groundwater production charges. Giving the Committee sources and use of funds/revenue with a breakdown and clarity of where the funds come from North vs South County costs so the Committee can make an informed decision on the rates in the future.

## **5.2 UPDATE ON OPEN SPACE CREDIT**

Mr. Joseph Atmore reviewed the materials as outlined in the agenda.

Committee Members, Arthur M. Keller, Ph.D., Ms. Tess Byler, Ms. Rita Norton, Hon. Dean Chu, Mr. Marc Rauser, Mr. Charles Ice and Mr. Loren Lewis, discussed the following: groundwater charges versus subsidy, flat water use, Santa Clara Valley Open Space, North and South County differences on the Williamson Act, the Act is for the larger farmer and it needs to be equitable, source of money, does County's Ag plan align, there was a motion in January and members supporting keeping the costs low.

Mr. Darin Taylor was available to answer questions.

The Committee took the following action:

It was moved by Mr. Charles Ice seconded by Mr. Marc Rauser, and carried by majority vote to approve that the Board of Directors consider the Committee's approval of keeping the ag water rate the same and not consider the Williamson Act/Conservation Easement properties and keeping everyone equal.

## **5.3 UPDATE FROM WORKING GROUPS**

Chair Byler stated there were no reports from any working group.

The Committee took no action.

#### **5.4 REVIEW OF ENVIRONMENTAL AND WATER RESOURCES COMMITTEE WORK PLAN, THE OUTCOMES OF BOARD ACTION OF COMMITTEE REQUESTS AND THE COMMITTEE'S NEXT MEETING AGENDA**

Chair Byler and Ms. Glenna Brambill reviewed the materials as outlined in the agenda item.

The Committee took the following action.

It was moved by Arthur M. Keller, Ph.D., seconded by Ms. Tess Byler, and carried by majority vote to approve the change work plan item #9 (Water Supply Master Plan) to an action item and add Bay Delta Plan Update to the working plan.

Rev. Jethroe Moore, II, left at 8:25 p.m. and did not return.

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

Ms. Glenna Brambill reported there were three action items for the Board consideration.

##### **Agenda Item 5.1**

The Committee took the following actions:

1. Environmental and Water Resources Committee by majority vote, that the Board of Directors consider the Committee's recommendation to approve the proposed groundwater production charge rates:

Staff proposes a 6.6% increase in the North County (Zone W-2) Municipal and Industrial groundwater production charge from \$1,289/AF to \$1,374/AF. The proposal equates to a monthly bill increase for the average household of \$2.93 or about 10 cents a day.

In the South County (Zone W-5), staff proposes a 6.9% increase in the M&I groundwater production charge from \$450/AF to \$481/AF. The proposal equates to a monthly bill increase for the average household of \$1.07 or about 4 cents per day.

2. Environmental and Water Resources Committee by majority vote, that the Board of Directors consider the Committee's approval of having staff supply additional financial data to the Committee for next year's analysis of groundwater production charges. Giving the Committee sources and use of funds/revenue with a breakdown and clarity of where the funds come from North vs South County costs so the Committee can make an informed decision on the rates in the future.

##### **Agenda Item 5.2:**

Environmental and Water Resources Committee by majority vote (9 yes/4 no), that the Board of Directors consider the Committee's approval of keeping the ag water rate the same and not consider the Williamson Act/Conservation Easement properties and keeping everyone equal.

##### **Agenda Item 5.4:**

Environmental and Water Resources Committee by majority vote, that the Board of Directors consider the Committee's approval of adding the Bay Delta Plan to the Committee's work plan.

## **7. REPORTS**

### **7.1 DIRECTOR'S REPORT**

None.

### **7.2. MANAGER'S REPORT**

Mr. Garth Hall reported on the following:

- Water Conservation Plans continuing
- April 26, 2019, Water Conservation and Demand Management Committee meeting will be proposing ongoing implementation of metering infrastructure
- Model Ordinance Plan introduced to other cities (retailers)

### **7.3 COMMITTEE MEMBER REPORTS**

Introduced Ms. Susan Blake as the newest EWRC Member, District 4 and she gave a short bio on her background.

### **7.4 LINK TO INFORMATIONAL REPORTS**

None.

## **8. ADJOURNMENT**

Chair Ms. Tess Byler adjourned at 8:30 p.m. to the next regular meeting on Monday, July 15, 2019, at 6:00 p.m., in the Santa Clara Valley Water District Headquarters Boardroom.

Submitted by:

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

Approved:

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# Santa Clara Valley Water District

File No.: 19-0623

Agenda Date: 7/15/2019

Item No.: 4.1.

## COMMITTEE AGENDA MEMORANDUM

### Environmental and Water Resources Committee

#### SUBJECT:

Standing Items Report.

#### RECOMMENDATION:

- A. For the Environmental and Water Resources Committee to receive information on the Board's priorities on the following subjects:
1. Finalize the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE). (Assigned to FAHCE) *Nothing to report at this time!*
  2. Actively Pursue Efforts to Increase Water Storage Opportunities. (Assigned to Water Storage Exploratory Committee) *See Attachment 1.*
  3. Actively Participate in Decisions Regarding the California Delta Conveyance. (Assigned to California Delta Conveyance Working Group) *Nothing to report at this time!*
  4. Lead Recycled and Purified Water Efforts with the City of San Jose and Other Agencies. (Assigned to Recycled Water Committee) *Valley Water and Cities of Palo Alto and Sunnyvale have been discussing recycled and purified water expansions. During the Joint Recycled Water Policy Advisory Committee meeting on Dec. 3, 2018, Cities of San Jose and Santa Clara have plans to expand the Recycled Water systems in their service areas as well as the City of Milpitas.*
  5. Engage and educate the community, local elected officials and staff on future water supply strategies in Santa Clara County. (Assigned to Water Conservation and Demand Management Committee) *Nothing to report at this time!*
  6. Advance Anderson Dam Seismic Retrofit Project. (Assigned to Capital Improvement Program Committee) *Nothing to report at this time!*
  7. Provide for a Watershed-Wide Regulatory Planning and Permitting Effort. (Assigned to FAHCE) *Nothing to report at this time!*
  8. Attain net positive impact on the environment when implementing Valley Water's mission. *Nothing to report at this time!*
  9. Promote the protection of creeks, bay, and other aquatic ecosystems from threats of pollution and degradation (E-4.1.3). (Assigned to Homeless Encampment Ad Hoc Committee) *Nothing to report at this time!*
  10. Advance Diversity and Inclusion Efforts. Carry forward to FY20. (Assigned to Diversity and Inclusion Ad Hoc Committee) *Nothing to report at this time!*
  11. Understand if the level of services Valley Water provides to the public are reasonable and the

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costs of providing services are affordable and effective. (Assigned to Revenue Working Group)  
*The Group has started working on this, however, there is nothing to report at this time!*

B. This is informational only and no action is required.

**SUMMARY:**

The Environmental and Water Resources Committee was established to assist the Board with policy review and development, provide comment on activities in the implementation of the District mission, and to identify Board-related issues.

On March 12, 2019, the Board of Directors approved aligning the Board Advisory Committees' agendas and work plans with the Board's yearly work plan.

The new agenda format will allow regular reports on the Board's priorities from the Board's committees and/or Board committee representative and identify subjects where the committees could provide advice to the Board on pre-identified subjects in a timely manner to meet the Board's schedule, and distribute information/reports that may be of interest to committee members.

**ATTACHMENTS:**

Attachment 1: Standing Items Report

**UNCLASSIFIED MANAGER:**

Michele King, 408-630-2711

## Los Vaqueros Reservoir Expansion Project

### Background

Los Vaqueros is an off-stream reservoir located in the foothills west of the Delta in Contra Costa County. Los Vaqueros was initially constructed by the Contra Costa Water District (CCWD) in 1998 with a capacity of 100,000 acre-feet (AF) and then expanded to 160,000 AF in 2012. The original reservoir and first expansion were completed on time, within budget, and without opposition. The Los Vaqueros Expansion (LVE) Project would increase the reservoir capacity to 275,000 AF and build the Transfer-Bethany Pipeline, which would connect CCWD's system to the California Aqueduct at Bethany Reservoir. Regardless of whether the Santa Clara Valley Water District (Valley Water) stores water in the expanded Los Vaqueros Reservoir, imported water could be moved from CCWD's intakes in the Delta to Valley Water's system without relying on the South-of-Delta pumps. Water delivered through the Transfer-Bethany Pipeline would then continue through the South Bay Aqueduct (SBA) to Santa Clara County. Valley Water staff are evaluating the water supply benefit of the LVE Project and Transfer Bethany Pipeline and the conveyance capacity of the SBA and Valley Water facilities for conveying LVE Project water.

### Project Participants

The LVE Project started with 14 Local Agency Partners (LAP). Since then, Eastern Contra Costa Irrigation District has left the project and four members have consolidated under the San Luis & Delta Mendota Water Authority. Therefore, there are currently nine (9) LAPs (not including CCWD), and they are:

1. Alameda County Water District
2. Bay Area Water Supply & Conservation Agency
3. City of Brentwood
4. East Bay Municipal Utility District
5. Grassland Water District
6. Santa Clara Valley Water District
7. San Francisco Public Utilities Commission
8. Zone 7 Water Agency
9. San Luis & Delta Mendota Water Authority
  - 9.1. Byron Bethany Irrigation District
  - 9.2. Del Puerto Water District
  - 9.3. Panoche Water District
  - 9.4. Westlands Water District

### Total Project Cost

The total project implementation cost of the LVE Project based on assumptions made in the Proposition 1 Water Storage Investment Program (WSIP) application is approximately \$980 million in 2015 constant dollars. LVE Project Cost in 2018 constant dollars is \$864 million. The LVE Project costs have decreased due to the elimination of project elements no longer needed, such as the East Contra Costa Irrigation District interconnection pipeline and an improved alignment for the Transfer-Bethany Pipeline. CCWD received the maximum eligibility award for WSIP funding of \$459 million. In addition, California Water Commission (CWC) authorized \$13.65 million in early funding for planning and design and CCWD received an eligibility award of \$2.15 million in federal funding for planning and design through the Water Infrastructure Improvement for the Nation Act (WIIN Act).

In 2016, Valley Water Board of Directors authorized the CEO to execute an agreement to participate in the LVE Project and contribute \$100,000 to support CCWD's Proposition 1 WSIP application. In 2019, the Board authorized the CEO to execute an agreement to continue its participation in the LVE Project and contribute \$315,000 to continue various planning, permitting and design efforts. Additionally, some of these funds will be used as matching local funds required by WSIP and the WIIN Act.

### Project Governance

The LVE Project currently is being led by CCWD. CCWD's financial consultant will work with the LAPs to develop a JPA agreement, anticipated to be established in 2020. The LAPs are planning to hire independent special counsel to represent them during JPA formation (Attachment 2). To participate in the special counsel selection process, each LAP and CCWD can designate an attorney or senior manager to serve on the ad hoc legal work group. Once the JPA is in place, responsibilities such as project financing and executing agreements will transition from CCWD to the JPA.

### Potential Valley Water Benefits

The LVE Project water supply and operational benefits could be realized by diverting State Water Project (SWP), Central Valley Project (CVP), and/or surplus water without relying on the South-of-Delta pumps for direct delivery through Transfer Bethany Pipeline or pumped into an expanded Los Vaqueros Reservoir for later delivery. Pending further analysis, the LVE Project may provide the following benefits to Valley Water:

- An increase in water supply, primarily in dry years;
- Banking capacity of SWP and CVP contract supplies in an expanded Los Vaqueros Reservoir;
- Alternate points of diversion during periods when SWP and CVP exports are restricted by regulatory requirements that do not apply to CCWD diversions;
- Operational flexibility by conveying imported water from the California Aqueduct through the Transfer-Bethany Pipeline; and
- Improved operational flexibility of regional projects (e.g., desalination, refinery recycled water exchange, Bay Area Regional Reliability water market) by providing an additional conveyance path via Transfer-Bethany Pipeline.

The extent to which these benefits may be realized depends on several issues that have yet to be resolved, including the level of participation (i.e., with or without storage in Los Vaqueros), permit requirements, regulatory conditions, adequate conveyance capacity in the SBA and Valley Water infrastructure, integration of operations with SWP and CVP, and integration of operations with existing and proposed Valley Water operations and infrastructure.

Valley Water staff continues to participate in the LVE Project discussions and is working with regional partners to evaluate system constraints. Staff is collaborating with SBA contractors and neighboring LAPs to assess SBA and Valley Water infrastructure (e.g., water treatment plants, Milpitas Intertie) capacity requirements and availability to deliver LVE Project water to Valley Water and neighboring LAPs.

### Next Steps

Key near-term meetings and decision points on the LVE Project include:

- Spring/Summer 2019 - Form committee to select outside counsel to form JPA
- Summer 2019 – Review of user fees by third party consultant
- 2019/2020 – Conduct and review various financial model scenarios
- 2020 – Formation of JPA



The Committee discussed the following: Contra Costa Water District's (CCWD) contributions, water rights, conveying water, project benefits, Purissima Hills Water District and California Water Service Company nexus and next steps.

The Committee took no action.

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# Santa Clara Valley Water District

**File No.:** 19-0624

**Agenda Date:** 7/15/2019

**Item No.:** 5.1.

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## COMMITTEE AGENDA MEMORANDUM

### Environmental and Water Resources Committee

**SUBJECT:**

Update on Water Supply Master Plan

**RECOMMENDATION:**

This is a discussion item and no action is required. However, the Committee may make recommendations for Board consideration.

**SUMMARY:**

The Water Supply Master Plan (Master Plan) is the Santa Clara Valley Water District's (Valley Water) strategy for providing a reliable and sustainable water supply in a cost-effective manner consistent with Board Policy E-2. - "There is a reliable, clean water supply for current and future generations". The current draft (hardcopies to be provided at the meeting) is an update to the 2012 Water Supply and Infrastructure Master Plan. The plan informs investment decisions by describing the type and level of water supply investments Valley Water is planning to make through 2040, the anticipated schedule, the associated costs and benefits, and how Master Plan implementation will be monitored and adjusted.

This memorandum summarizes the water supply strategy for the Master Plan, updates to Valley Water's water supply reliability level of service goal, discusses the additional water supplies needs, proposed water supply investments, and how the Master Plan will be monitored and assessed, and next steps.

Water Supply Strategy

The Master Plan builds upon the Board's 2012 investment strategy, called "Ensure Sustainability", which is comprised of three elements:

1. Secure existing supplies and infrastructure,
2. Expand water conservation and reuse, and
3. Optimize the use of existing supplies and infrastructure.

The three elements of the strategy work together to provide a framework for providing a sustainable and reliable water supply. These elements protect and build on past investments in water supply reliability, leverage those investments, and develop alternative supplies and demand management measures to manage risk and meet future needs, especially during extended droughts in a changing climate.

### Water Supply Reliability Level of Service Goal

The water supply reliability level of service goal is important because it guides long-term water supply planning efforts and informs Board decisions regarding long-term investments. Since 2012, the Board's adopted level of service goal was "to develop water supplies designed to meet at least 100 percent of average annual water demand identified in the District's Urban Water Management Plan during non-drought years and at least 90 percent of average annual water demand in drought years."

As part of the current Master Plan update, staff reviewed this level of service with stakeholders and the Board. Based on those discussions, as well as an internal analysis, staff recommended the following changes:

1. Reference the Master Plan demand projection rather than the Urban Water Management Plan projection because it is closer to historic trends and will be reviewed and updated annually as part of Master Plan monitoring.
2. Update the level of service goal to meeting 80 percent of demands in drought years because it strikes a balance between minimizing shortages and the costs associated with the higher level of service.

Further considerations included the fact that the community was able to reduce water use as much as 28 percent in 2015, indicating that shortages in the range of 20 percent are manageable. Additionally, the recommendation for reducing the level of service to meeting 80 percent of demands in droughts is consistent with the following:

- Telephone Survey of Santa Clara County Voters re: Water Conservation
- Stakeholder Input
- Incremental Benefit:Costs - The incremental costs of increasing the level of service from meeting 80 percent of demands in drought years to meeting 90 percent of demands in drought years exceed the value of benefits achieved by the increase.
- Frequency of Shortage - Modeling indicates that most scenarios that achieve the recommended level of service goal have shortages in less than 10 percent of years. By comparison, the District has called for mandatory water use reductions in about 30 percent of the last 30 years.
- Planning for Uncertainty - The water supply planning model evaluates water supply conditions under a variety of scenarios, but it cannot anticipate every potential scenario and there is inherent uncertainty in projections.

In January 2019, the Board adopted the revised level of service goal "to develop water supplies designed to meet at least 100 percent of average annual water demand identified in the District's Water Supply Master Plan during non-drought years and at least 80 percent of average annual water demand in drought years."

### Additional Water Supplies Needs

The Master Plan evaluates the baseline water supply system against projected water demands through year 2040. The baseline water supply system includes current water supplies and existing

infrastructure. Baseline water supplies include natural groundwater recharge, local runoff, recycled water, imported water through the Central Valley Project (CVP) and the State Water Project (SWP), and imported water delivered by the San Francisco Public Utilities Commission (SFPUC). Existing infrastructure includes 10 dams, 17 miles of canals, four water supply diversion dams, 393 acres of recharge ponds, 91 miles of controlled in-stream recharge, 142 miles of pipelines, three drinking water treatment plants, one advanced water purification center, and three pump stations. The Master Plan assumes Valley Water will implement the dam seismic retrofits to remove operating restrictions, complete the Rinconada Water Treatment Plan reliability improvement project, implement the 10-year pipeline rehabilitation, complete the Vasona pumping plant upgrade, and increase water conservation savings to approximately 100,000 AFY by 2030. It also assumes that countywide non-potable recycled water use will increase to about 33,000 AFY by 2040.

The amount of total water supply varies greatly from year to year, based primarily on precipitation levels. In years where water supplies exceed water demands, Valley Water is able to store surplus water in local groundwater basins, the Semitropic Water Bank, or local and statewide surface water reservoirs for later use. In dry years, Valley Water draws on these reserves to meet local water demands.

Water demands are projected to increase from about 360,000 acre-feet per year (AFY) in 2020 to about 400,000 AFY in 2040. Average baseline water supplies in 2040 are projected to be about 368,000 AFY, resulting in a small shortfall of about 32,000 AFY between average demands and average baseline supplies. However, the projected shortfall during drought is more significant. Without new investments, reserves would be depleted during extended droughts and short-term water use reductions of up to 50 percent would be needed to avoid land subsidence and undesirable groundwater conditions. Valley Water develops the Master Plan specifically for this reason: to identify and evaluate projects to fill gaps between supplies and demands, and to recommend a strategy for long-term water supply reliability.

#### Master Plan Methodology, Risk, and Recommended Projects

The purpose of the Water Supply Master Plan (Water Master Plan) is to present Valley Water's strategy and investments for ensuring a reliable, clean water supply to meet future demands. The methodology to determine those necessary investments includes identifying the water supply reliability goal (i.e., level of service), evaluating the current and future water supply and demand trends, identifying the water supply gap, and investigating potential projects to fill those gaps. Staff identified over 40 projects that could fill that gap between supplies and demands; evaluation included analyzing their water supply yield and their associated lifecycle costs. However, no individual project can address the county's future water supply needs, therefore, various combinations of projects were evaluated for their ability to meet Valley Water's reliability goal under various scenarios.

Next, staff performed a risk ranking of the Master Plan projects under consideration to assess their ability to provide the estimated water supply benefits on schedule and budget. The four different risk categories are stakeholder, implementation, operations, and cost. Stakeholder risks include public perception, regulatory restrictions, and partnerships. Implementation risks include construction complexity and phasing potential. Operation risks include climate change and uncertainty in long-term operations and maintenance. Cost risks include stranded assets and financing security. The

risk ranking report in Attachment 2 has more detailed information on the risk categories, the risk ranking methodology, and the results. Based on direction from the Board on November 20, 2018, staff performed an update to the risk analysis of the projects under consideration. This risk analysis considered the probabilities and consequences of projects not achieving their projected water supply yields by 2040. The results were similar to the results reported in the 2017 Risk Ranking Report. The notable difference was that the risk ranking for storage projects are lower than the 2017 result, going from a high risk to medium risk, due to increased certainty in funding (i.e., Proposition 1 funding) and additional information on project benefits.

Project	Average Annual Yield (AFY)	Valley Water Lifecycle Costs <sup>2</sup>	Unit Cost (AF)	Risk
Delta Conveyance Project	41,000	\$630 million	\$600	High/ Extreme
Additional Conservation & Stormwater Projects	11,000	\$100 million	\$400	Medium
Potable Reuse	19,000	\$1.2 billion	\$2,000	Medium
Pacheco Reservoir Expansion <sup>1</sup>	6,000	\$340 million <sup>3</sup>	\$2,000	Medium
Transfer-Bethany Pipeline <sup>1</sup>	3,500	\$78 million	\$700	Medium
South County Recharge	2,000	\$20 million	\$400	Medium

The amount of project yield and benefit that is usable by Valley Water depends on the portfolio of water supply projects that Valley Water ultimately implements and the outcome of ongoing regulatory processes.

<sup>1</sup> Assumes Prop. 1 Water Storage Investment Program funding. Cost would be roughly double without the funding.

<sup>2</sup> Valley Water lifecycle costs are presented in 2018 present value dollars.

<sup>3</sup> Assumes Prop. 1 and WIIN funding, WIFIA loan, and partner agencies pay 20% of the project.

The suggested Master Plan projects (Delta Conveyance Project (SWP and CVP), 24,000 AFY of potable reuse, a package of additional water conservation and stormwater capture projects, South County Recharge, Transfer-Bethany Pipeline, and Pacheco Reservoir Expansion) exceed Valley Water's newly-adopted level of service goal. However, it is unlikely that all the projects will be implemented as currently planned and be able to deliver their assumed benefits by Year 2040, the planning horizon for this Master Plan. For that reason, as well as the uncertainties of demand projections and climate change, staff has developed a Monitoring and Assessment Plan, as discussed below.

#### Master Plan Monitoring and Assessment Plan

A primary purpose of the Master Plan is to inform investment decisions. Therefore, a critical piece of the water supply plan is a process to monitor and report to the Board on the demands, supplies, and status of projects and programs in the Master Plan. The Board can then use this information in the annual water rate setting, Capital Improvement Plan (CIP), and budget processes, which typically

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begin in September of each year. Monitoring will identify where adjustments to the Master Plan might be needed to respond to changed conditions. Such adjustments could include accelerating and delaying projects due to changes in the demand trend, updating projects due to implementation challenges, adding projects due to lower than expected supply trends, etc. The monitoring and assessment plan approach for the Master Plan includes the following steps:

1. Develop an implementation schedule (Attachment 3).
2. Manage unknowns and risks through regular monitoring and assessment.
3. Report to the Board on Master Plan implementation on at least an annual basis, usually in summer.
4. Adjust projects as necessary and recommend for Board approval.

#### Next Steps

Over the next few months, staff is scheduled to present the draft Master Plan to Board Advisory Committees, Board Committees, and conduct two workshops - one with water retailers and government agencies, and one with other interested stakeholders. Staff plans to present a final Master Plan to the Board in September 2019, with the first annual report being presented to the Board in Summer 2020. Any changes would then be incorporated into the FY 21 CIP, budget, and water rates setting processes.

#### **ATTACHMENTS:**

Attachment 1: Staff Presentation  
Attachment 2: Risk Ranking Report  
Attachment 3: Draft Implementation Schedule

#### **UNCLASSIFIED MANAGER:**

Jerry De La Piedra, 408-630-2257

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# Valley Water

Clean Water • Healthy Environment • Flood Protection



# Water Supply Master Plan

Presented by: Metra Richert, Unit Manager  
Water Supply Planning & Conservation



# Overview

- Master Plan Purpose
- Water Supply Strategy
- Water Supply Reliability Level of Service
- Master Plan Projects
- Monitoring and Assessment Approach
- Next Steps



# Master Plan Purpose

- Comprehensive evaluation of project and program costs, benefits, and risks
- Recommend investment strategy
- Recommend level of service goal
- Recommend projects to ensure water reliability
- Monitor and assess to avoid overinvestments



# Water Supply Strategy “Ensure Sustainability”

5

- Protects existing assets
- Leverages past investments
- Meets new demands with drought-resilient supplies
- Develops local and regional supplies to reduce reliance on the Delta
- Increases flexibility
- Increases resiliency to climate change



1.  
Secure  
existing  
supplies and  
infrastructure



2.  
Expand  
conservation  
and reuse



3.  
Optimize the  
system

valleywater.org

# Water Supply Reliability Level of Service

Develop water supplies designed to meet 100 percent of demands identified in the ~~Urban Water Management Plan~~ Water Supply Master Plan in non-drought years and at least ~~90~~ 80 percent of average annual water demand in drought years.

## Rationale

- 2017 Telephone Survey
- Stakeholder Input
- Incremental Costs
- Frequency of Shortage
- Planning for Uncertainty
- Conservation efforts



# Master Plan Projects



Sustainability



Operational Flexibility



Yield



Local vs. Regional Supply



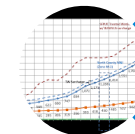
Environmental Impacts



Climate Change



Cost



Rate Impacts



Regulatory Restrictions



And more...

# Master Plan Projects

- Baseline Projects<sup>1</sup>
- Delta Conveyance Project
- Additional Conservation & Stormwater Projects
- Potable Reuse (Phase 1- 24,000 AF by FY28)
- Pacheco Reservoir Expansion
- Transfer-Bethany Pipeline
- South County Recharge

<sup>1</sup> Dam seismic retrofits, Rinconada Water Treatment Plan reliability improvement project, 10-year pipeline rehabilitation program, Vasona pumping plan upgrade, 100,000 AFY water conservation savings, and assumes 33,000 AFY of countywide non-potable recycled water.



Project	Average Annual Yield (AFY)	Valley Water Lifecycle Cost <sup>3</sup>	Unit Cost (AF)	Risk
Delta Conveyance Project	41,000	\$630 million	\$600	High/Extreme
Additional Conservation & Stormwater Projects	11,000	\$100 million	\$400	Medium
Potable Reuse	19,000	\$1.2 billion	\$2,000	Medium
Pacheco Reservoir Expansion <sup>2</sup>	6,000	\$340 million <sup>4</sup>	\$2,000	Medium
Transfer-Bethany Pipeline <sup>2</sup>	3,500	\$78 million	\$700	Medium
South County Recharge	2,000	\$20 million	\$400	Medium

Ultimately the amount of project yield and benefit that is usable by Valley Water depends on the portfolio of water supply projects that Valley Water ultimately implements and the outcome of ongoing regulatory processes.

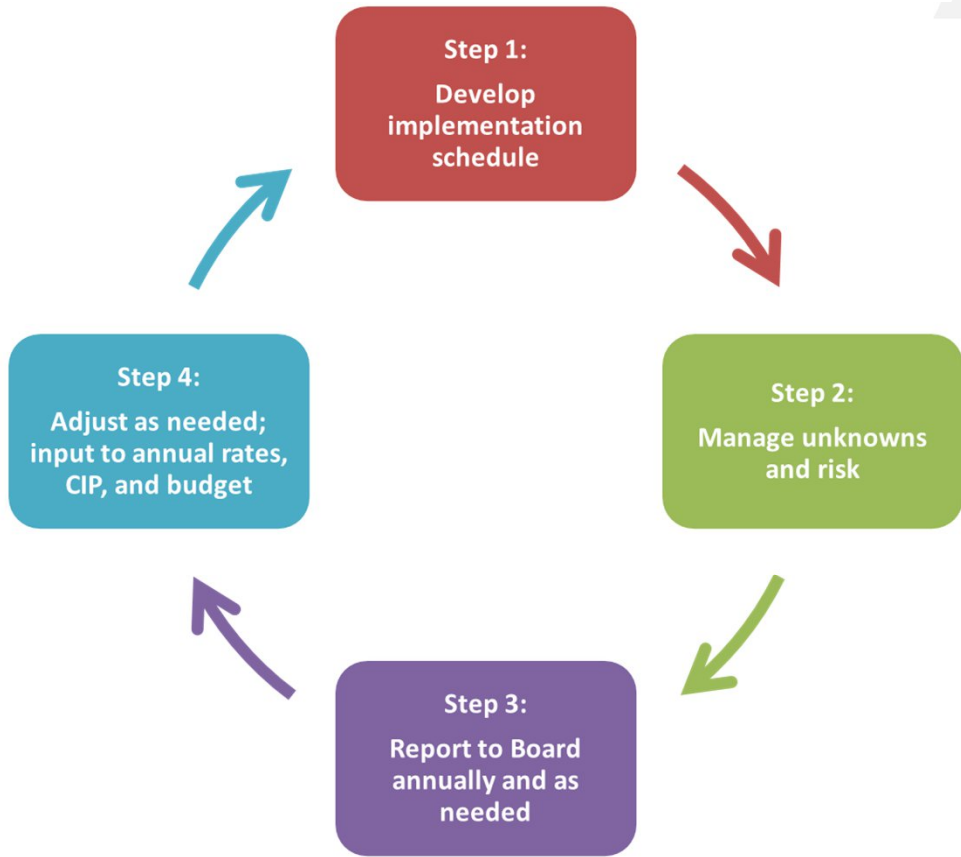
<sup>2</sup> Assumes Prop. 1 Water Storage Investment Program funding. Costs would roughly double without funding.

<sup>3</sup> Valley Water lifecycle costs are presented in 2018 present value dollars.

<sup>4</sup> Assumes Prop. 1 and WIIN funding, WIFIA loan, and partner agencies pay 20% of the project.



# Monitoring and Assessment Plan



# Next Steps

- Stakeholder outreach
  - Board Advisory Committees
  - Board Committees
  - Water retailers and government agencies
  - 2 stakeholder outreach meetings
- Present final Master Plan to Board in September 2019

# QUESTIONS





# WATER SUPPLY MASTER PLAN 2017 – PROJECT RISKS



9/8/2017

Results of Pairwise and Traditional Risk  
Analyses

Contents

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**RISK ELEMENTS..... 2**

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**TOTAL PROJECT RISK CALCULATION ..... 14**

**PROJECT RISK SUMMARY AND CONCLUSIONS ..... 17**

Appendices

- A. Project Descriptions
- B. Methodology

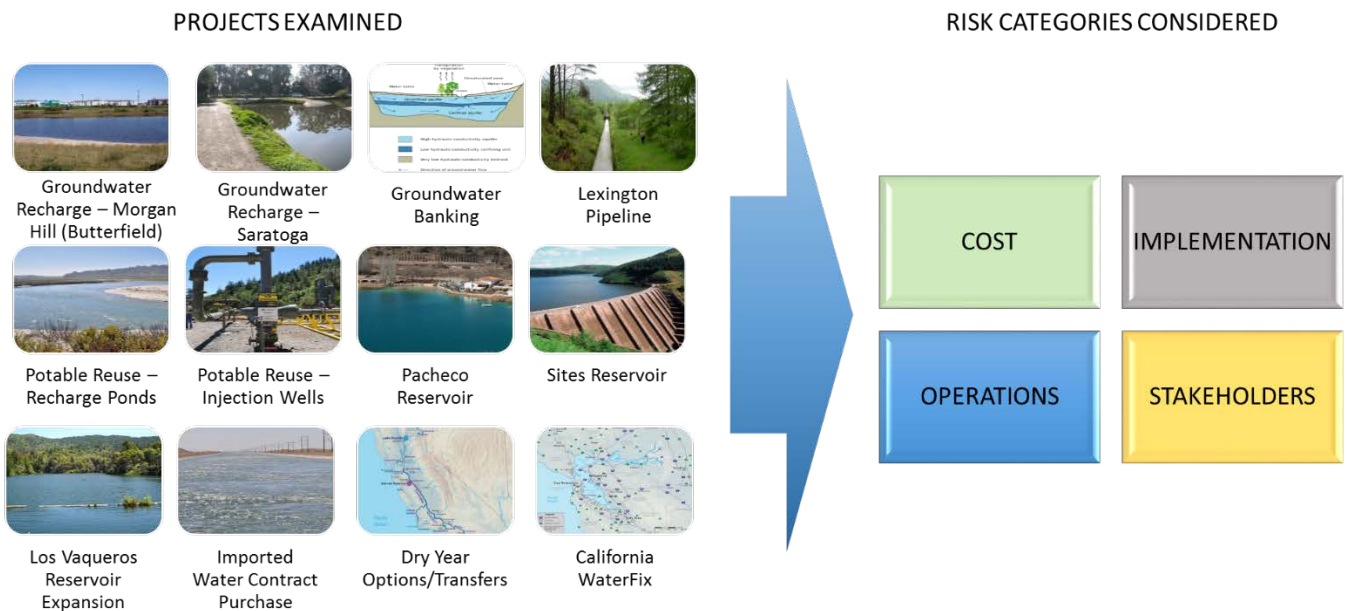
# Water Supply Master Plan 2017 – PROJECT RISKS

## OVERVIEW

Santa Clara Valley Water District (District) staff conducted a risk analysis of the projects being considered for inclusion in the 2017 Water Supply Master Plan (WSMP; Figure 1). The WSMP is the District’s strategy for providing a reliable and sustainable water supply in a cost-effective manner. The WSMP process includes assessing the existing water supply system, estimating future supplies and demands, identifying and evaluating projects to fill gaps between supplies and demands, and recommending a strategy for long-term water supply reliability. This risk analysis helps evaluate the types, severity, and likelihood of risk associated with each WSMP project so that the District Board of Directors and community better understand the uncertainties associated with each project’s ability to meet future water demands.

This report summarizes the results of the risk analysis developed to quantitatively assess the types and level of risk impacting each project. Project descriptions and cost estimates are in Appendix A - Project Descriptions. Appendix B details the methodology used to conduct the risk analysis.

**FIGURE 1. PROJECTS AND RISK CATEGORIES – PROJECTS BEING CONSIDERED FOR THE 2017 WSMP AND THE TYPES OF RISK INCLUDED IN THE RISK ANALYSIS.**



## RISK CATEGORIES

During an Expert Panel meeting on June 8, 2017, staff and panel experts discussed different types of project risks. Afterwards, staff grouped the risks into four risk categories: Cost, Implementation, Operations, and Stakeholders. The types (or elements) of risk are summarized in Table 1 by risk category. At four meetings, one for each risk category, District subject matter experts discussed risk elements within the risk category and then conducted pairwise and traditional risk analyses of the 2017 WSMP projects. Many risks spanned the categories, but the aspects of the risk were distinct in each meeting. For example, the capital costs risk was considered during the Cost and Stakeholders risk meetings, but the Costs meeting considered the uncertainty of the capital cost estimates for each project while the Stakeholders meeting considered whether higher capital costs could result in greater stakeholder opposition. Table 1 summarizes the risks by risk category.



**TABLE 1. RISK ELEMENTS BY CATEGORY. SUBJECT MATTER EXPERTS IN EACH RISK CATEGORY MET TO ASSESS PROJECT RISK WITH CONSIDERATION OF THE RISK ELEMENTS WITHIN EACH RISK CATEGORY. SEPARATE MEETINGS WERE HELD FOR EACH RISK CATEGORY.**

<b>Risk Category</b>	<b>Risk Elements</b>
<b>Costs</b>	<ul style="list-style-type: none"> <li>• Capital costs, including quality of cost estimate</li> <li>• Costs of regulatory compliance</li> <li>• Match requirements and cost-sharing</li> <li>• Counter-party risk/ability of partners to pay costs</li> <li>• Stakeholders and rate payer ability to pay</li> <li>• Financing and funding security</li> <li>• Scheduling issues</li> <li>• Economic fluctuations and instability</li> <li>• Potential for stranded assets</li> </ul>
<b>Implementation</b>	<ul style="list-style-type: none"> <li>• Phasing potential</li> <li>• Project duration and schedule</li> <li>• Reoperation requirements</li> <li>• Land availability</li> <li>• Constructability (e.g., structural issues, technology)</li> <li>• Managerial capacity (knowledge and resource availability)</li> <li>• Range of implementation options</li> <li>• Regulatory requirements</li> <li>• Project planning maturity</li> </ul>
<b>Operations</b>	<ul style="list-style-type: none"> <li>• Climate change</li> <li>• Yield variability and reliability</li> <li>• Operating Partnerships</li> <li>• Uncertainty of long-term operations and maintenance costs</li> <li>• Project inter-dependency</li> <li>• Environmental and water quality regulations</li> <li>• Control</li> <li>• Appropriate infrastructure</li> <li>• Redundancy</li> <li>• Emergency operations/asset failures</li> </ul>
<b>Stakeholders</b>	<ul style="list-style-type: none"> <li>• Public support</li> <li>• Permitting risks</li> <li>• Media</li> <li>• Internal stakeholder concerns</li> <li>• External stakeholder opposition</li> <li>• Environmental/special interest groups</li> <li>• Partnership risks</li> <li>• Government stakeholders</li> <li>• Costs</li> </ul>



### PAIRWISE RISK ANALYSIS

A pairwise risk analysis provides a quantitative approach for ranking projects by risk. Having projects ranked by riskiness improves the District Board's and community's ability to compare projects' ability to meet future needs. To complete the risk assessment, the project team assembled five to six subject matter experts from the District into four groups, one group for each risk category. The team chose District experts that had knowledge specific to their assigned risk category. Then, the subject matter experts compared each project against another project using the pairwise matrix in Table 2. The crossed-out boxes represent duplicate comparisons or compare the project against itself. The subject matter experts each determined which of the two projects being compared was a higher risk for the risk category. For example, the first comparison is Morgan Hill (Butterfield) Recharge and Groundwater Banking. If someone determined that Groundwater Banking has more risk, they would enter a "G" for Groundwater Banking

### PAIRWISE RISK ANALYSIS BY RISK ELEMENT

Tables 3a-d provide the results of the pairings by risk category. Each project is represented by an abbreviation and the numbers indicate how many people chose it as the higher risk. For example, all six participants assessing cost risks thought that Imported Water Contract Purchase was higher risk than Morgan Hill (Butterfield) Recharge, so the associated cell is filled with "I6." Alternatively, two of the six participants thought Imported Water Rights Purchase (I) was higher risk than Groundwater Banking (G), so the associated cell is filled with "I2 G4."

**TABLE 2. PAIRWISE COMPARISON MATRIX. EACH SUBJECT MATTER EXPERT COMPLETED THE PAIRWISE ANALYSIS BY ENTERING THE LETTER ASSOCIATED WITH THE HIGHER RISK PROJECT IN EACH EMPTY CELL.****\* Morgan Hill (Butterfield) Recharge Pond**

	Dry Year Options/ Transfers <b>D</b>	Lexington Pipeline <b>LX</b>	Ground-water Recharge-Saratoga <b>SP</b>	Ground-water Recharge - Morgan Hill* <b>B</b>	Ground-water Banking <b>G</b>	Sites Reservoir <b>S</b>	Los Vaqueros Reservoir Expansion <b>L</b>	Potable Reuse – Los Gatos Ponds <b>PL</b>	Potable Reuse – Ford Pond <b>PF</b>	Potable Reuse – Injection Wells <b>PI</b>	Imported Water Contract Purchase <b>I</b>	Pacheco Reservoir <b>PR</b>	California Water Fix <b>C</b>
Dry Year Options/ Transfers <b>D</b>	X												
Lexington Pipeline <b>LX</b>	X	X											
Groundwater Recharge-Saratoga <b>SP</b>	X	X	X										
Groundwater Recharge - Morgan Hill* <b>B</b>	X	X	X	X									
Groundwater Banking <b>G</b>	X	X	X	X	X								
Sites Reservoir <b>S</b>	X	X	X	X	X	X							
Los Vaqueros Reservoir Expansion <b>L</b>	X	X	X	X	X	X	X						
Potable Reuse – Los Gatos Ponds <b>PL</b>	X	X	X	X	X	X	X	X					
Potable Reuse – Ford Pond <b>PF</b>	X	X	X	X	X	X	X	X	X				
Potable Reuse – Injection Wells <b>PI</b>	X	X	X	X	X	X	X	X	X	X			
Imported Water Contract Purchase <b>I</b>	X	X	X	X	X	X	X	X	X	X	X		
Pacheco Reservoir <b>P</b>	X	X	X	X	X	X	X	X	X	X	X	X	
California Water Fix <b>C</b>	X	X	X	X	X	X	X	X	X	X	X	X	X

## Water Supply Master Plan 2017 – PROJECT RISKS

**TABLE 3A-D. PAIRWISE COMPARISON RESULTS. THE TABULATED RESULTS FOR THE COST (A), IMPLEMENTATION (B), OPERATION (C), AND STAKEHOLDER (D) PAIRWISE ANALYSIS. EACH LETTER PRESENTS A PROJECT AS SHOWN IN THE HEADER ROW AND COLUMN. THE NUMBER FOLLOWING THE LETTERS IN EACH CELL REPRESENTS THE NUMBER OF EXPERTS WHO THINK THE ASSOCIATED PROJECT IS RISKIER.**

**a.**

<b>COST RISKS</b>	Dry Year Options/ Transfers	Lexington Pipeline	Ground-water Recharge Saratoga	Ground-water Recharge - Morgan Hill*	Ground-water Banking	Sites Reservoir	Los Vaqueros Reservoir Expansion	Potable Reuse – Los Gatos Ponds	Potable Reuse – Ford Pond	Potable Reuse – Injection Wells	Imported Water Contract Purchase	Pacheco Reservoir	California WaterFix
	<b>D</b>	<b>LX</b>	<b>SP</b>	<b>B</b>	<b>G</b>	<b>S</b>	<b>L</b>	<b>PL</b>	<b>PF</b>	<b>PI</b>	<b>I</b>	<b>PR</b>	<b>C</b>
Dry Year Options/ Transfers <b>D</b>	X	D2 LX2	D2 SP2	D2 B2	D2 G2	D0 S4	D0 L4	D1 PL3	D1 PF3	D1 PI3	D2 I2	D0 PR4	D0 C4
Lexington Pipeline <b>LX</b>	X	X	LX3 SP1	LX4 B0	LX1 G3	LX0 S4	LX0 L4	LX0 PL4	LX0 PF4	LX0 PI4	LX2 I2	LX0 PR4	LX0 C4
Groundwater Recharge- Saratoga <b>SP</b>	X	X	X	SP4 B0	SP1 G3	SP0 S4	SP0 L4	SP0 PL4	SP0 PF4	SP0 PI4	SP1 I3	SP0 PR4	SP0 C4
Groundwater Recharge - Morgan Hill* <b>B</b>	X	X	X	X	B0 G4	B0 S4	B0 L4	B0 PL4	BO PF4	B0 PI4	B0 I4	B0 PR4	B0 C4
Groundwater Banking <b>G</b>	X	X	X	X	X	G1 S3	G0 L4	G0 PL4	G0 PF4	G0 PI4	G1 I3	G0 PR4	G0 C4
Sites Reservoir <b>S</b>	X	X	X	X	X	X	S3 L1	S3 PL1	S3 PF1	S3 PI1	S3 I1	S0 PR4	S0 C4
Los Vaqueros Reservoir Expansion <b>L</b>	X	X	X	X	X	X	X	L3 PL1	L3 PF1	L3 PI1	L2 I2	L0 PR4	L0 C4
Potable Reuse – Los Gatos Ponds <b>PL</b>	X	X	X	X	X	X	X	X	PL1 PF3	PLO PI4	PL2 I2	PLO PR4	PLO C4
Potable Reuse – Ford Pond <b>PF</b>	X	X	X	X	X	X	X	X	X	PFO PI4	PF2 I2	PFO PR4	PFO C4
Potable Reuse – Injection Wells <b>PI</b>	X	X	X	X	X	X	X	X	X	X	PI2 I2	PIO PR4	PIO C4
Imported Water Contract Purchase <b>I</b>	X	X	X	X	X	X	X	X	X	X	X	I0 PR4	I0 C4
Pacheco Reservoir <b>P</b>	X	X	X	X	X	X	X	X	X	X	X	X	PR1 C3
California WaterFix <b>C</b>	X	X	X	X	X	X	X	X	X	X	X	X	X

## \* Morgan Hill (Butterfield) Recharge Pond

b.

IMPLEMENTATION RISKS	Dry Year Options/ Transfers	Lexington Pipeline	Ground-water Recharge-Saratoga	Ground-water Recharge - Morgan Hill*	Ground-water Banking	Sites Reservoir	Los Vaqueros Reservoir Expansion	Potable Reuse – Los Gatos Ponds	Potable Reuse – Ford Pond	Potable Reuse – Injection Wells	Imported Water Contract Purchase	Pacheco Reservoir	California WaterFix
	<b>D</b>	<b>LX</b>	<b>SP</b>	<b>B</b>	<b>G</b>	<b>S</b>	<b>L</b>	<b>PL</b>	<b>PF</b>	<b>PI</b>	<b>I</b>	<b>PR</b>	<b>C</b>
Dry Year Options/ Transfers <b>D</b>	X	D1 LX3	D2 SP2	D3 B1	D4 G0	D0 S4	D0 L4	D1 PL3	D0 PF4	D0 PI4	D4 I0	D0 PR4	D0 C4
Lexington Pipeline <b>LX</b>	X	X	LX3 SP1	LX3 B1	LX3 G1	LX1 S3	LX1 L3	LX1 PL3	LX1 PF3	LX1 PI3	LX3 I1	LX0 PR4	LX0 C4
Groundwater Recharge-Saratoga <b>SP</b>	X	X	X	SP3 B1	SP2 G2	SP2 S2	SP1 L3	SP1 PL3	SP0 PL4	SP0 PI4	SP3 I1	SP0 PR4	SP0 C4
Groundwater Recharge - Morgan Hill* <b>B</b>	X	X	X	X	B3 G1	B0 S4	B0 L4	B0 PL4	B0 PF4	B0 PI4	B3 I1	B0 PR4	B0 C4
Groundwater Banking <b>G</b>	X	X	X	X	X	G0 S4	G0 L4	G0 PL4	G0 PI4	G0 PI4	G3 I1	G0 PR4	B0 C4
Sites Reservoir <b>S</b>	X	X	X	X	X	X	S3 L1	S4 PL0	S3 PF1	S4 PI0	S4 I0	S0 PR4	S0 C4
Los Vaqueros Reservoir Expansion <b>L</b>	X	X	X	X	X	X	X	L3 PL1	L2 PF2	L3 PI1	L4 I0	L1 PR3	L0 C4
Potable Reuse – Los Gatos Ponds <b>PL</b>	X	X	X	X	X	X	X	X	PL3 PF1	PL0 PI4	PL4 I0	PL0 PR4	PL0 C4
Potable Reuse – Ford Pond <b>PF</b>	X	X	X	X	X	X	X	X	X	PF1 PI3	PF4 I0	PF0 PR4	PF0 C4
Potable Reuse – Injection Wells <b>PI</b>	X	X	X	X	X	X	X	X	X	X	PI2 I2	PI0 PR4	PI0 C4
Imported Water Contract Purchase <b>I</b>	X	X	X	X	X	X	X	X	X	X	X	I0 PR4	I0 C4
Pacheco Reservoir <b>P</b>	X	X	X	X	X	X	X	X	X	X	X	X	PR0 C4
California WaterFix <b>C</b>	X	X	X	X	X	X	X	X	X	X	X	X	X

\* Morgan Hill (Butterfield) Recharge Pond

## Water Supply Master Plan 2017 – PROJECT RISKS

c.

OPERATION RISKS	Dry Year Options/ Transfers	Lexington Pipeline	Ground-water Recharge-Saratoga	Ground-water Recharge - Morgan Hill*	Ground-water Banking	Sites Reservoir	Los Vaqueros Reservoir Expansion	Potable Reuse – Los Gatos Ponds	Potable Reuse – Ford Pond	Potable Reuse – Injection Wells	Imported Water Contract Purchase	Pacheco Reservoir	California Water Fix
	<b>D</b>	<b>LX</b>	<b>SP</b>	<b>B</b>	<b>G</b>	<b>S</b>	<b>L</b>	<b>PL</b>	<b>PF</b>	<b>PI</b>	<b>I</b>	<b>PR</b>	<b>C</b>
Dry Year Options/ Transfers <b>D</b>	X	D3 LX2	D4 SP1	D4 B1	D3 G2	D0 S5	D2 L3	D3 PL2	D3 PF2	D2 PI3	D4 I1	D1 PR4	D0 C4
Lexington Pipeline <b>LX</b>	X	X	LX5 SP0	LX5 B0	LX0 G5	LX0 S5	LX0 L5	LX0 PL5	LX0 PF5	LX0 PI5	LX2 I3	LX0 PR5	LX0 C5
Groundwater Recharge-Saratoga <b>SP</b>	X	X	X	SP1 B4	SP0 G5	SP0 S5	SP0 L5	SP0 PL5	SP0 PF5	SP0 PI5	SP0 I5	SP0 PR5	SP0 C5
Groundwater Recharge - Morgan Hill* <b>B</b>	X	X	X	X	B0 G5	B0 S5	B0 L5	B0 PL5	B0 PF5	B0 PI5	B2 I3	B0 PR5	B0 C5
Groundwater Banking <b>G</b>	X	X	X	X	X	G0 S5	G0 L5	G3 PL2	G3 PF2	G1 PI4	G2 I3	G0 PR5	G0 C5
Sites Reservoir <b>S</b>	X	X	X	X	X	X	S5 L0	S5 PL0	S5 PF0	S4 PI1	S5 I0	S4 PR1	S0 C5
Los Vaqueros Reservoir Expansion <b>L</b>	X	X	X	X	X	X	X	L5 PL0	L5 PF0	L4 PI1	L5 I0	L5 PR0	L0 C4
Potable Reuse – Los Gatos Ponds <b>PL</b>	X	X	X	X	X	X	X	X	PL3 PF2	PL1 PI4	PL3 I2	PL0 PR5	PL0 C5
Potable Reuse – Ford Pond <b>PF</b>	X	X	X	X	X	X	X	X	X	PF0 PI5	PF3 I2	PF0 PR5	PR0 C5
Potable Reuse – Injection Wells <b>PI</b>	X	X	X	X	X	X	X	X	X	X	PI4 I1	PI0 PR5	PI0 C5
Imported Water Contract Purchase <b>I</b>	X	X	X	X	X	X	X	X	X	X	X	I0 PR5	I0 C5
Pacheco Reservoir <b>P</b>	X	X	X	X	X	X	X	X	X	X	X	X	PR0 C5
California Water Fix <b>C</b>	X	X	X	X	X	X	X	X	X	X	X	X	X

\* Morgan Hill (Butterfield) Recharge Pond

d.

STAKE-HOLDER RISKS	Dry Year Options/ Transfers <b>D</b>	Lexington Pipeline <b>LX</b>	Ground-water Recharge-Saratoga <b>SP</b>	Ground-water Recharge - Morgan Hill* <b>B</b>	Ground-water Banking <b>G</b>	Sites Reservoir <b>S</b>	Los Vaqueros Reservoir Expansion <b>L</b>	Potable Reuse – Los Gatos Ponds <b>PL</b>	Potable Reuse – Ford Pond <b>PF</b>	Potable Reuse – Injection Wells <b>PI</b>	Imported Water Contract Purchase <b>I</b>	Pacheco Reservoir <b>PR</b>	California WaterFix <b>C</b>
Dry Year Options/ Transfers <b>D</b>	X	D1 LX2	D1 SP2	D1 B2	D1 G2	D1 S2	D1 L2	D1 PL2	D1 PF2	D1 PI2	D2 I1	D0 PR3	D0 C3
Lexington Pipeline <b>LX</b>	X	X	LX2 SP1	LX3 B0	LX1 G2	LX0 S3	LX0 L3	LX1 PL2	LX1 PF2	LX1 PI2	LX1 I2	LX0 PR3	LX0 C3
Groundwater Recharge-Saratoga <b>SP</b>	X	X	X	SP3 B0	SP1 G2	SP0 S3	SP0 L3	SP0 PL3	SP0 PF3	SP0 PI3	SP1 I2	SP0 PR3	SP0 C3
Groundwater Recharge - Morgan Hill* <b>B</b>	X	X	X	X	B1 G2	B0 S3	B0 L3	B0 PL3	B0 PF3	B0 PI3	B2 I1	B0 PR3	B0 C3
Groundwater Banking <b>G</b>	X	X	X	X	X	G1 S2	G1 L2	G1 PL2	G1 PF2	G1 PI2	G2 I1	G0 PR3	G0 C3
Sites Reservoir <b>S</b>	X	X	X	X	X	S3 S0	S2 L1	S2 PL1	S2 PF1	S2 PI1	S2 I1	S0 PR3	S0 C3
Los Vaqueros Reservoir Expansion <b>L</b>	X	X	X	X	X	X	X	L1 PL2	L1 PF2	L1 PI2	L2 I1	L0 PR3	L0 C3
Potable Reuse – Los Gatos Ponds <b>PL</b>	X	X	X	X	X	X	X	X	PL1 PF2	PLO PI3	PL2 I1	PIO PR3	PLO C3
Potable Reuse – Ford Pond <b>PF</b>	X	X	X	X	X	X	X	X	X	PFO PI3	PF2 I1	PFO PR3	PFO C3
Potable Reuse – Injection Wells <b>PI</b>	X	X	X	X	X	X	X	X	X	X	PI2 I1	PIO PR3	PIO C3
Imported Water Contract Purchase <b>I</b>	X	X	X	X	X	X	X	X	X	X	X	I0 PR3	I0 C3
Pacheco Reservoir <b>P</b>	X	X	X	X	X	X	X	X	X	X	X	X	PRO C3
California WaterFix <b>C</b>	X	X	X	X	X	X	X	X	X	X	X	X	X

\* Morgan Hill (Butterfield) Recharge Pond

## Water Supply Master Plan 2017 – PROJECT RISKS

### PAIRWISE RANKING RESULTS

Table 4 shows the pairwise ranking results. The letter designation represents the riskier project based on the results of the four subject matter expert groups combined. The percentage indicates the amount of agreement between the four groups. 100% indicates that all four risk groups agree the project was riskier. Where 75 percent is indicated, three of four teams ranked it higher risk (where 75%\* is noted, the result was three of four, and one tie). Where 66% is indicated, two of three groups agreed and a tie in the fourth group. Finally, 50 percent indicates an even split between the four risk categories. Most the comparisons had agreement among the four categories.

**TABLE 4. PAIRWISE RANKING RESULTS**

ALL RISK CATEGORIES	Dry Year Options/ Transfers	Lexington Pipeline	Ground-water Recharge-Saratoga	Ground-water Recharge - Morgan Hill*	Ground-water Banking	Sites Reservoir	Los Vaqueros Reservoir Expansion	Potable Reuse – Los Gatos Ponds	Potable Reuse – Ford Pond	Potable Reuse – Injection Wells	Imported Water Contract Purchase	Pacheco Reservoir	California WaterFix
	<b>D</b>	<b>LX</b>	<b>SP</b>	<b>B</b>	<b>G</b>	<b>S</b>	<b>L</b>	<b>PL</b>	<b>PF</b>	<b>PI</b>	<b>I</b>	<b>PR</b>	<b>C</b>
Dry Year Options/ Transfers <b>D</b>	X	LX 66%	D/SP 50%	D/B 50%	D 66%	S 100%	L 100%	PL 75%	PF 75%	PI 100%	D 75%	PR 100%	C 100%
Lexington Pipeline <b>LX</b>	X	X	LX 100%	LX 100%	G 75%	S 100%	L 100%	PL 100%	PF 100%	PI 100%	I 66%	PR 100%	C 100%
Groundwater Recharge-Saratoga <b>SP</b>	X	X	X	SP 75%*	G 75%*	S 75%*	L 100%	PL 100%	PF 100%	PI 100%	I 75%	PR 100%	C 100%
Groundwater Recharge - Morgan Hill* <b>B</b>	X	X	X	X	G 75%	S 100%	L 100%	PL 100%	PF 100%	PI 100%	B/I 50%	PR 100%	C 100%
Groundwater Banking <b>G</b>	X	X	X	X	X	S 100%	L 100%	PL 75%	PF 75%	PI 100%	G/I 50%	PR 100%	C 100%
Sites Reservoir <b>S</b>	X	X	X	X	X	X	S 100%	S 100%	S 100%	S 100%	S 100%	PR 75%	C 100%
Los Vaqueros Reservoir Expansion <b>L</b>	X	X	X	X	X	X	X	L 75%	L/PF 50%	L 75%	L 75%*	PR 100%	C 100%
Potable Reuse – Los Gatos Ponds <b>PL</b>	X	X	X	X	X	X	X	X	PL/PF 50%	PI 100%	PL 75%*	PR 100%	C 100%
Potable Reuse – Ford Pond <b>PF</b>	X	X	X	X	X	X	X	X	X	PI 100%	PF 75%*	PR 100%	C 100%
Potable Reuse – Injection Wells <b>PI</b>	X	X	X	X	X	X	X	X	X	X	PI 50%	PR 100%	C 100%
Imported Water Contract Purchase <b>I</b>	X	X	X	X	X	X	X	X	X	X	X	PR 100%	C 100%
Pacheco Reservoir <b>P</b>	X	X	X	X	X	X	X	X	X	X	X	X	C 100%
California WaterFix <b>C</b>	X	X	X	X	X	X	X	X	X	X	X	X	X

\* Morgan Hill (Butterfield) Recharge Pond

From the pairwise analysis results, California WaterFix is the riskiest project being considered, followed by the surface water reservoirs and potable reuse using injection wells. The two potable reuse projects using recharge ponds are tied, as are groundwater banking and the Lexington Pipeline. The least risky projects are the groundwater recharge projects.

**TABLE 5. PAIRWISE COMPARISON RISK RANKING.** Project pairwise rank determined using the count of comparisons for which each project was determined as the riskiest. The total votes by experts lists the sum of the raw scores for each project.

PAIRWISE TOTALS	PAIRWISE RANK	TOTAL VOTES BY EXPERTS
California WaterFix C	13	187
Pacheco Reservoir PR	12	165
Sites Reservoir S	11	146
Los Vaqueros Reservoir Expansion L	9	130
Potable Reuse – Injection Wells PI	10	120
Potable Reuse – Ford Road PF	8	96
Potable Reuse – Los Gatos Ponds PL	8	93
Groundwater Banking G	6	62
Imported Water Contract Purchase I	3	61
Dry Year Options/Transfers D	4	58
Lexington Pipeline LX	6	58
Groundwater Recharge - Saratoga SP	2	38
Groundwater Recharge Morgan Hill (Butterfield) B	1	23



## Water Supply Master Plan 2017 – PROJECT RISKS

### RISK SEVERITY AND LIKELIHOOD ANALYSIS

The four risk category teams also assessed the severity and likelihood of risk for each project. The goal of this risk scoring exercise is to help determine how much riskier one project is compared to another and to identify if the risk is primarily from the likelihood that the risk materializes, the severity of the outcome if the risk materializes, or both. The methodology and risk scoring criteria are included in Appendix B. Each risk category expert scored the risk severity and likelihood for each project on a scale from 1 to 4, with four (4) being the highest magnitude of risk. The definitions are summarized in Table 6. Table 7 presents the sum of the median score for each of the risk categories by project, from highest to lowest risk. The relative ranking of risk using the severity and likelihood is the same as when the pairwise results are used. Figure 2. Risk Matrix. illustrates the severity and likelihood analysis results in a risk matrix.

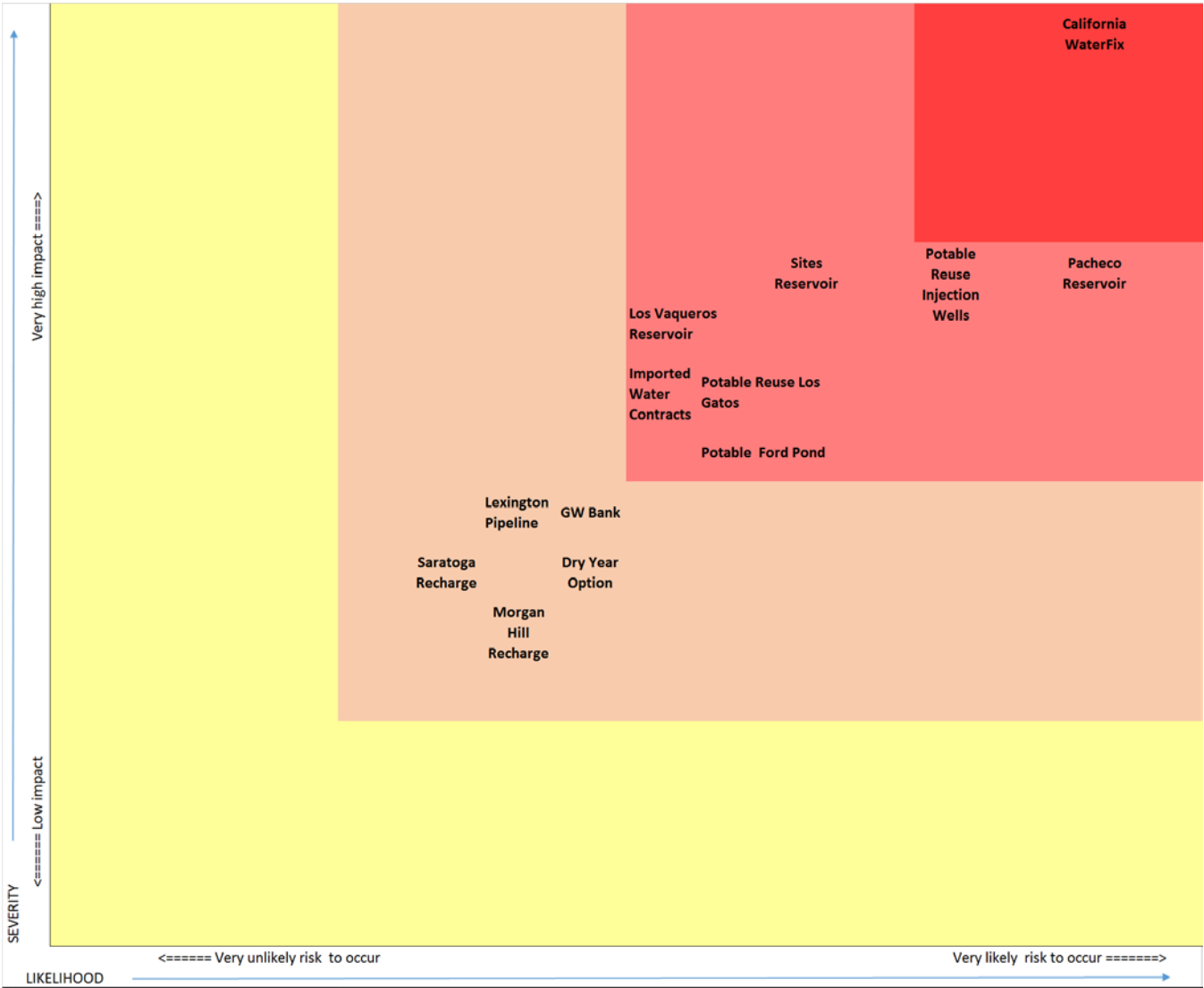
**TABLE 6. RISK SEVERITY AND LIKELIHOOD DEFINITIONS**

Severity	<ol style="list-style-type: none"> <li>1. Low= low to no effect on project</li> <li>2. Medium = minor to modest impacts</li> <li>3. High = significant or substantial impacts</li> <li>4. Very High = extreme potential impacts</li> </ol>
Likelihood	<ol style="list-style-type: none"> <li>1. Very Unlikely = Risks will not materialize</li> <li>2. Unlikely = Risks probably will not materialize</li> <li>3. Likely = Risks probably will materialize</li> <li>4. Very Likely = Almost certain risks will materialize</li> </ol>

**TABLE 7. RISK SEVERITY AND LIKELIHOOD RESULTS**

Project	Severity Score (Max. of 16)	Likelihood Score (Max of 16)
California WaterFix C	16	15
Pacheco Reservoir PR	12	15
Sites Reservoir S	12	11
Potable Reuse – Injection Wells PI	12	13
Los Vaqueros Reservoir Expansion L	11	9
Potable Reuse – Ford Road PF	9	10
Potable Reuse -Los Gatos Ponds PL	10	10
Groundwater Banking G	8	8
Lexington Pipeline LX	8	7
Dry year options/transfers D	7	8
Imported Water Contract Purchase I	10	9
Groundwater Recharge -Saratoga SP	7	6
Groundwater Recharge Morgan Hill (Butterfield) B	6	7

FIGURE 2. RISK MATRIX. LIKELIHOOD OF PROJECT IMPACT INCREASES UPWARD ALONG THE VERTICAL AXIS AND SEVERITY INCREASES ALONG THE HORIZONTAL AXIS. SEE TABLE 9 FOR THE RAW DATA USED TO DEVELOP THIS FIGURE.



### TOTAL PROJECT RISK CALCULATION

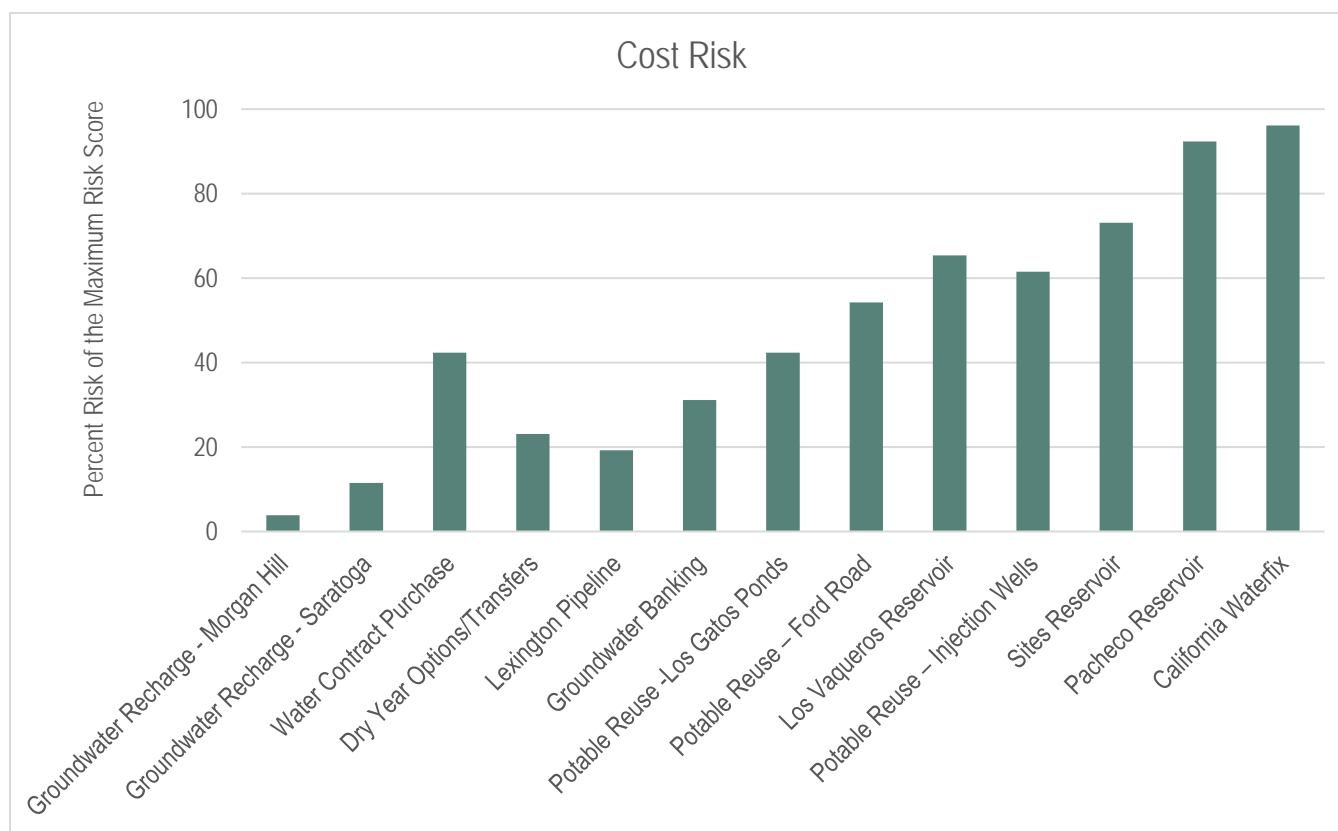
Staff calculated the total project risk for each category by weighting the pairwise ranking by the severity and likelihood (equation 1).

Equation 1

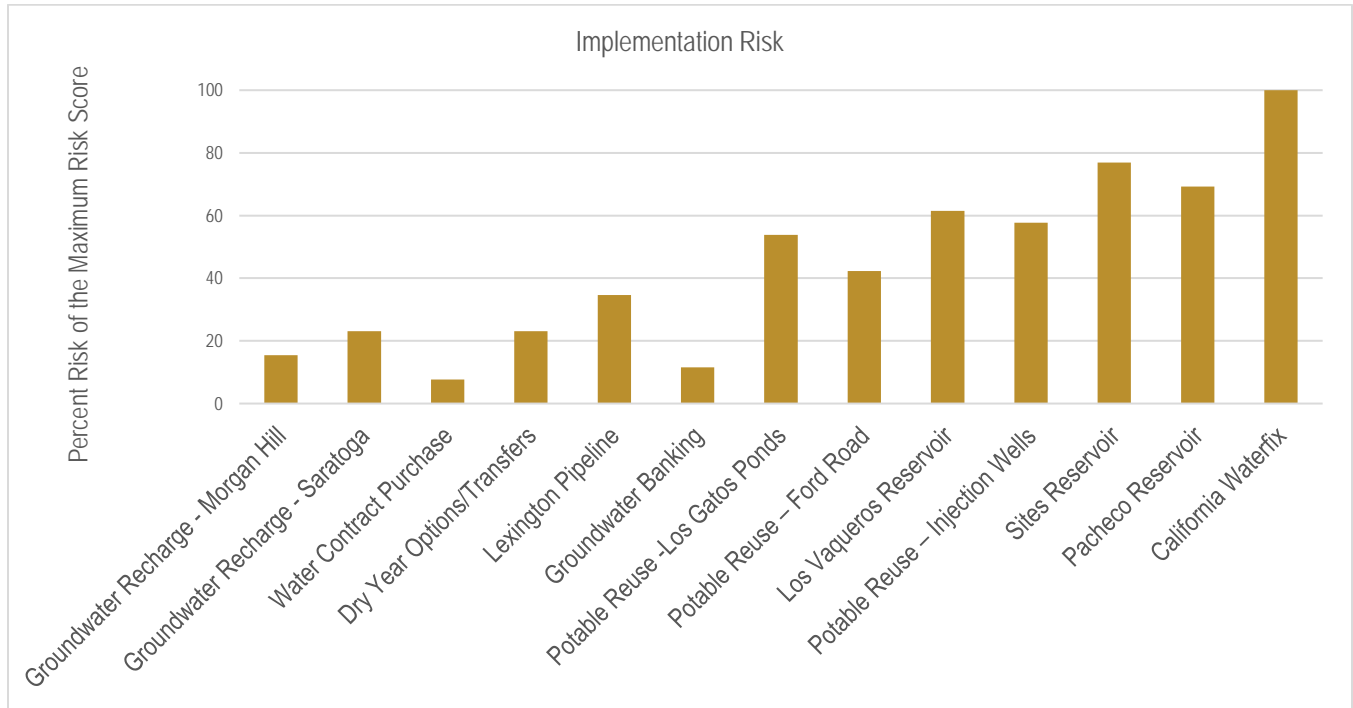
$$Risk_{category} = \left(1 + \frac{Severity + Likelihood}{8}\right) \times Pairwise\ Ranking$$

The severity and likelihood score is divided by eight (the maximum possible combined score) to represent severity and likelihood as a portion of the maximum possible combined score. This proportion is then added to one (1) so that the pairwise analysis remains the primary driver of the order of risk, and then the severity and likelihood is a multiplicative factor that acts on the risk ranking. If the severity and likelihood is significant, it will substantially increase the total risk score. If the severity and likelihood score are small, there will be little impact on the total risk score. Alternatively, not adding one (1) to the severity and likelihood proportion would result in the severity and likelihood decreasing the ranking number unless the severity and likelihood proportion equals one. Then the risk score was normalized by dividing by the maximum possible score and multiplying by 100 to convert to a percentage value. The project risks for each category are in Figures 3 through 6. The combined total project risk is in Figure 7.

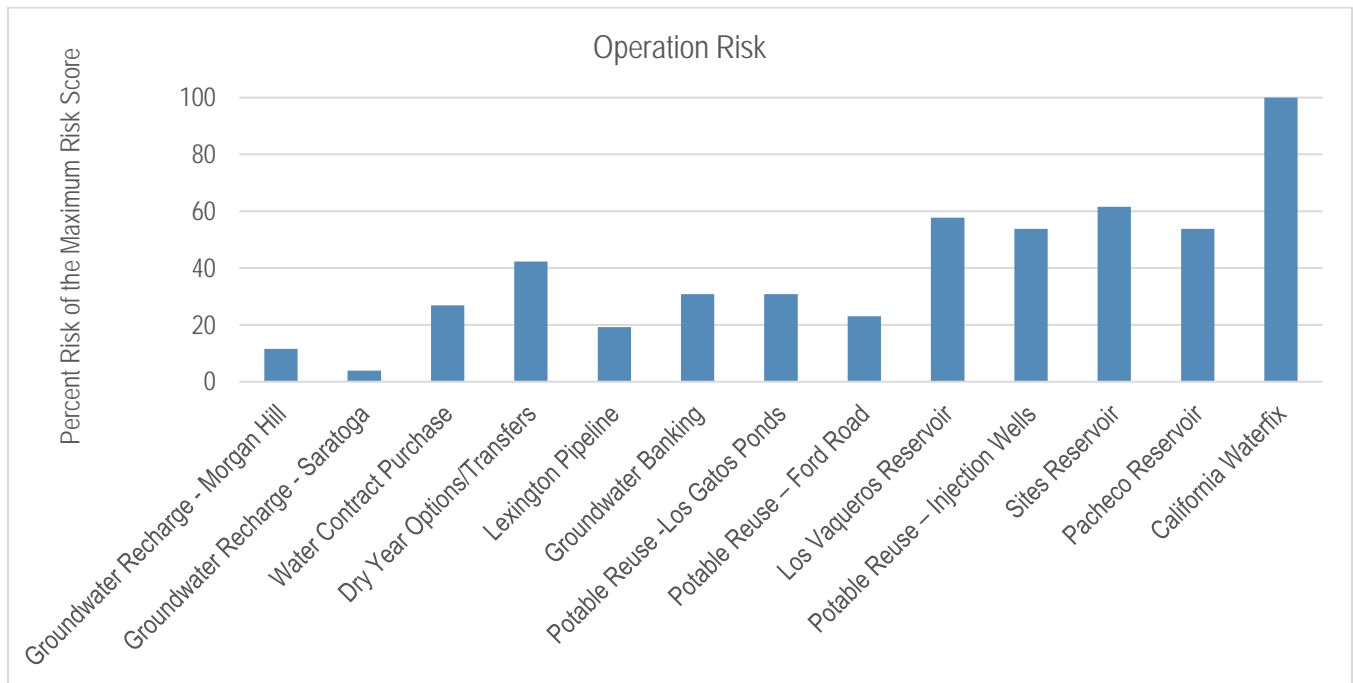
**FIGURE 3. WEIGHTED COST RISK**



**FIGURE 4. WEIGHTED IMPLEMENTATION RISK**

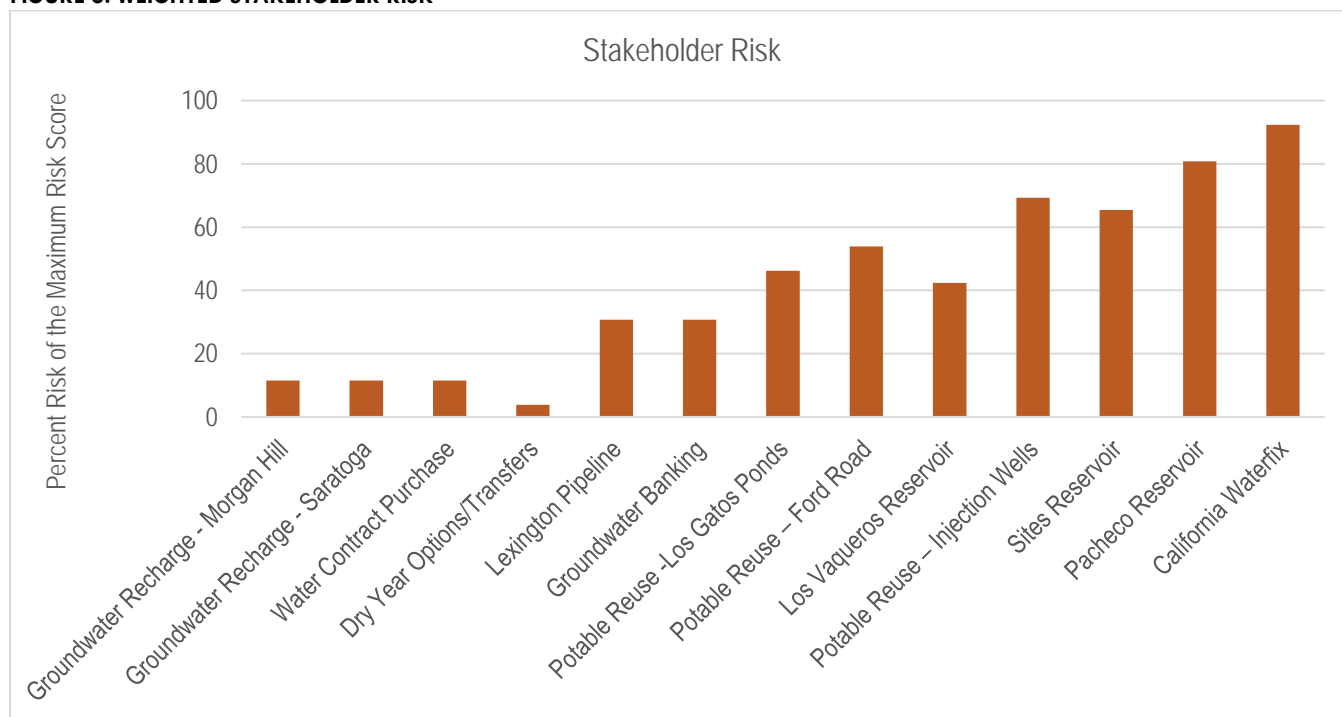


**FIGURE 5. WEIGHTED OPERATIONS RISK**

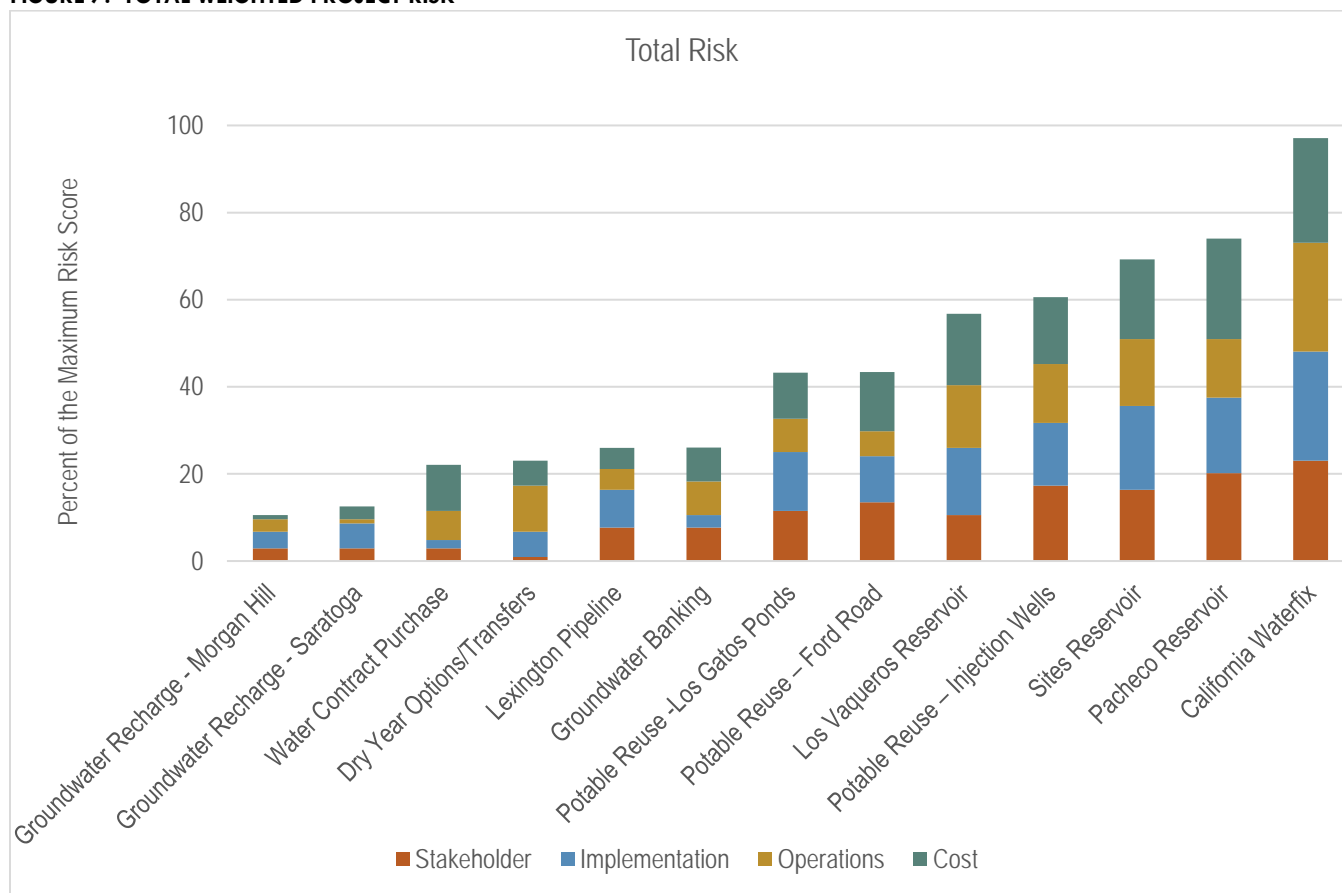


## Water Supply Master Plan 2017 – PROJECT RISKS

**FIGURE 6. WEIGHTED STAKEHOLDER RISK**



**FIGURE 7. TOTAL WEIGHTED PROJECT RISK**



## PROJECT RISK SUMMARY AND CONCLUSIONS

California WaterFix and the three surface water reservoirs (Pacheco, Sites, and Los Vaqueros) are among the highest risk projects based on this analysis. California WaterFix and Sites Reservoir risk is distributed relatively evenly among the four categories, while Pacheco has more cost risk and Los Vaqueros has less stakeholders risk compared to the other risk categories.

Uncertainties related to future regulatory requirements for the California WaterFix may affect project operations and impact water supply yields. Although significant contingencies have been included in the cost estimates, there could be cost overruns due to the size and complexity of the construction project. Additionally, opposition from vocal stakeholders and potential legal challenges could lead to schedule delays and changes in proposed operations that impact the project's water supply benefit.

Sites Reservoir would depend on Sacramento River flows and Pacheco Reservoir would store Delta-conveyed supplies (along with local water), causing uncertainty in the amount of water that either reservoir will supply. Future environmental regulations and hydrologic changes could significantly affect the modeled yields from the reservoirs. In addition, both reservoirs will likely have significant environmental mitigation requirements that could further reduce the water supply and increase the project costs.

In contrast to Sites, California WaterFix, and Los Vaqueros, the risk analysis results suggest that the Pacheco Reservoir cost-related risk is more significant than the stakeholders, implementation, and operations risks. The cost risks are based on concerns that Pacheco partners have less financial resources and the project has less secure funding sources compared to Sites, California WaterFix, or Los Vaqueros. In addition, the cost estimate for construction and operations/maintenance could increase considerably since the project is in the early phases of planning.

The analysis shows that Los Vaqueros Reservoir has a relatively low risk compared to the other reservoir proposals and California WaterFix, with 12 percent less total risk than the next riskiest reservoir (Sites Reservoir). Risk experts from each of the risk categories commented that Los Vaqueros has been expanded before with little opposition, on time, and on budget. In addition, experts from the costs group noted that there are several potential cost-sharing partners that are financially reliable. There are potential implementation and operation complexities due to the large number of partners.

The analysis also shows that potable reuse using injection wells is riskier than potable reuse using recharge ponds. Injection wells are a relatively new technology compared to recharge ponds and recharge pond operations, maintenance, and costs are better understood. However, experts were concerned that Ford Ponds will require decommissioning several retailer wells, potentially being a stakeholder acceptance and project implementation issue. General potable reuse concerns included public acceptance, poor cost estimates for advanced purification systems, and unknown regulatory requirements. However, experts thought it is less risky than reservoirs or California WaterFix because the water will be a drought-proof, reliable, local supply and that the current socio-political environmental surrounding potable reuse as a water supply will help improve public perception.

Groundwater banking and Lexington Pipeline both had the same amount of total risk. However, compared to Lexington Pipeline, groundwater banking had higher cost and operations risks and lower implementation risks. Since the District already participates in groundwater banking with Semitropic Water Storage District (Semitropic), stakeholders are familiar banking and the associated costs risks. In addition, implementation risks and operations risks are like those with Semitropic in that there needs to be exchange capacity in dry years and the storage is not in-county. While those risks exist, they are relatively small compared to other projects

## Water Supply Master Plan 2017 – PROJECT RISKS

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since the District has experience planning for and mitigating those risks. However, the new potential banking partners will need to build infrastructure to be able to bank District water.

In contrast to groundwater banking, most of the risk associated with Lexington Pipeline is implementation risk. The implementation concern is the ability to build the pipeline through urban areas and potentially complex geologies. Since the pipeline would be locally maintained and operated, there are less operational and cost-related risks. The main cost risk associated with Lexington Pipeline is the construction cost. In contrast, the District would not control the groundwater banking operations and costs would be a recurrent negotiation.

Imported water contract purchase and dry year transfer risks are primarily associated with cost and operation. The contract purchase option is a permanent transfer of SWP Table A contractual water supplies, which are subject to the same regulatory restrictions and delivery uncertainties as our current imported water supplies. In addition, the SWP South Bay Aqueduct has conveyance limits that could make it difficult to receive additional Table A contract water during higher allocation years. In contrast, dry year transfers can only be delivered during specific months. However, if dry year transfers are available, there is little risk that the District will not receive the purchased transfer water. Imported water contract purchase and dry year transfer are both lower risk relative to most other projects since neither require construction, reducing their implementation and cost risks. However, stakeholder experts suggested that it may have poor optics to buy more Table A water when we already do not receive 100 percent of our contract allotment and that it may be difficult to find someone interested in selling their Table A water contract. Similarly, dry year transfers may not be available for purchase when needed.

The Morgan Hill (Butterfield) recharge channel and Saratoga recharge pond were the lowest risk projects because they are less costly than other projects, are local, and the District has successfully completed similar projects. Morgan Hill (Butterfield) recharge channel is currently owned by Morgan Hill and actively used for stormwater conveyance during the winter. To use the channel for recharge as planned, the District will need to coordinate operations with Morgan Hill and extend the District's Madrone Pipeline to the channel. The chief concern with Saratoga recharge pond is identifying and purchasing a suitable property for recharge.

In general, the lowest risk projects are those that are locally controlled or similar to already completed projects. Imported water rights purchase, dry year transfer, and groundwater banking are current practices, so the District is prepared for the uncertainties associated with those projects. Similarly, Morgan Hill (Butterfield) recharge channel is similar to the Madrone recharge channel and is locally controlled. Potable reuse is the newest technology the District is considering, but the facilities are locally controlled and the District is currently testing potable reuse to confirm its operational capabilities. Experts did find potable reuse with recharge ponds to be lower risk than potable reuse with injection wells. The District has experience managing recharge ponds, consistent with the conclusion that lower risk projects are those that are most similar to existing District projects. Projects that require substantial construction and cost-sharing are higher risk, such as California WaterFix and the Pacheco, Sites, and Los Vaqueros Reservoirs.

This risk assessment helps provide the Board of Directors and external stakeholders more thorough understanding of each proposed project. Understanding project risks and how these risks may materialize can help determine which projects to invest in and what project-related issues to prepare for in the future as project development proceeds.

## Appendix A: Project and Program Descriptions (as of September 2017)

Project	Pros	Cons	Average Annual Yield (AFY) <sup>1</sup>	Present Value Cost to District (2017)	Cost/AF
<b>California WaterFix:</b> Constructs two 40-foot diameter tunnels at least 100 feet below ground surface capable of diverting up to 9,000 cubic feet-per-second from the Sacramento River and delivering it to the federal and state pumps. Alternative to conveying water all Central Valley Project and State Water Project supplies through the Delta. Would require environmental flow and water quality criteria be met.	<ul style="list-style-type: none"> <li>• Secures existing Delta-conveyed supplies</li> <li>• Upgrades aging infrastructure</li> <li>• Protects the environment through less impactful diversions</li> <li>• Improves reliability of other Delta-conveyed supplies and transfers</li> <li>• Protects water quality</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation complexity</li> <li>• Long-term operational uncertainty</li> <li>• Stakeholder opposition</li> <li>• Financing uncertainty</li> </ul>	41,000	\$620 million	\$600
<b>Dry Year Options / Transfers:</b> Provides 12,000 AF of State Water Project transfer water during critical dry years. Amount can be increased or decreased. Can also include long-term option agreements.	<ul style="list-style-type: none"> <li>• Provides supply in critical years when needs are greatest</li> <li>• Allows for phasing</li> <li>• Can implement in larger increments</li> <li>• Complements all other projects</li> </ul>	<ul style="list-style-type: none"> <li>• Subject to Delta-restrictions</li> <li>• Increases reliance on Delta</li> <li>• Cost volatility</li> <li>• Uncertainty with willing sellers</li> </ul>	2,000	\$100 million	\$1,400

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



Project	Pros	Cons	Average Annual Yield (AFY) <sup>1</sup>	Present Value Cost to District (2017)	Cost/AF
<b>Groundwater Banking:</b> Provides 120,000 AF of banking capacity for Central Valley Project and State Water Project contract water. Sends excess water to a groundwater bank south of the Delta during wet years and times of surplus for use during dry years and times of need. Annual put and take capacities of 30,000 AFY. Project more effective in portfolios that include new supplies.	<ul style="list-style-type: none"> <li>Significantly reduces drought shortages when paired with projects with all-year supply</li> <li>Allows for phasing</li> </ul>	<ul style="list-style-type: none"> <li>Subject to Delta restrictions</li> <li>Uncertainty with Sustainable Groundwater Management Act implementation</li> </ul>	2,000	\$170 million	\$3,900
<b>Groundwater Recharge – Morgan Hill Recharge:</b> Extends the Madrone Pipeline from Madrone Channel to Morgan Hill's Butterfield Channel and Pond near Main Street. Would need to be operated in conjunction with the City's stormwater operations.	<ul style="list-style-type: none"> <li>Optimizes the use of existing supplies</li> <li>Conjunctive use strategy</li> <li>Helps drought recovery</li> <li>Local project</li> </ul>	<ul style="list-style-type: none"> <li>Minimal impact on drought shortages</li> <li>North County locations limited</li> <li>Potential siting conflicts with existing land uses</li> </ul>	2,000	\$20 million	\$400
<b>Groundwater Recharge – Saratoga:</b> Constructs a new groundwater recharge facility in the West Valley, near the Stevens Creek pipeline.			1,000	\$50 million	\$1,300

Project	Pros	Cons	Average Annual Yield (AFY) <sup>1</sup>	Present Value Cost to District (2017)	Cost/AF
<b>Lexington Pipeline:</b> Constructs a pipeline between Lexington Reservoir and the raw water system to provide greater flexibility in using local water supplies. The pipeline would allow surface water from Lexington Reservoir to be put to beneficial use elsewhere in the county, especially when combined with the Los Gatos Ponds Potable Reuse project which would utilize the capacity of the Los Gatos recharge ponds where most water from Lexington Reservoir is currently sent. In addition, the pipeline will enable the District to capture some wet-weather flows that would otherwise flow to the Bay.	<ul style="list-style-type: none"> <li>• Optimizes the use of existing local supplies</li> <li>• Increases local flexibility</li> <li>• Complements potable reuse</li> </ul>	<ul style="list-style-type: none"> <li>• Water quality issues will require pre-treatment/management</li> <li>• Minimal reduction in drought shortages</li> </ul>	3,000	\$90 million	\$1,000

Project	Pros	Cons	Average Annual Yield (AFY) <sup>1</sup>	Present Value Cost to District (2017)	Cost/AF
<b>Los Vaqueros Reservoir:</b> Secures an agreement with Contra Costa Water District and other partners to expand the off-stream reservoir by 110,000 AF (from 160 TAF to 275 TAF) and construct a new pipeline (Transfer-Bethany) connecting the reservoir to the South Bay Aqueduct. Assumes District's share is 35,000 AF of storage, which is used to prorate costs. Emergency storage pool of 20,000 AF for use during droughts. District would also receive Delta surplus supplies when there is capacity to take. Average yield for District about 3,000 AFY. Assumes sales of excess District supplies to others. Transfer-Bethany Pipeline provides about ¾ of the project benefits at ¼ of the cost.	<ul style="list-style-type: none"> <li>Provides drought supplies</li> <li>Improved transfer/exchange capacity</li> <li>Allows for phasing (Transfer-Bethany Pipeline provides significant benefit)</li> <li>Complements projects with all-year supply</li> <li>Supports regional reliability</li> <li>Public and agency support</li> </ul>	<ul style="list-style-type: none"> <li>Operational complexity</li> <li>Institutional complexity</li> </ul>	3,000	\$40 million	\$400
<b>Pacheco Reservoir:</b> Enlarges Pacheco Reservoir to 140,000 AF. Assumes local inflows and ability to store Central Valley Project supplies in the reservoir. Construction in collaboration with Pacheco Pass Water District and San Benito County Water District. Potential other partners.	<ul style="list-style-type: none"> <li>Locally controlled</li> <li>Addresses San Luis Reservoir Low-Point problem</li> <li>Provides flood protection</li> <li>Provides cold water for fisheries</li> <li>Increases operational flexibility</li> </ul>	<ul style="list-style-type: none"> <li>Impacts to cultural resources</li> <li>Long-term operational uncertainty</li> <li>Increases long-term environmental commitments</li> <li>May require use of Delta-conveyed supplies to meet environmental commitments</li> <li>Stakeholder opposition</li> </ul>	6,000	\$450 million	\$2,700

Project	Pros	Cons	Average Annual Yield (AFY) <sup>1</sup>	Present Value Cost to District (2017)	Cost/AF
<b>Potable Reuse – Ford Pond:</b> Constructs potable reuse facilities for 5,000 AFY of groundwater recharge capacity at/near Ford Ponds.	<ul style="list-style-type: none"> <li>Local supply</li> <li>Not subject to short or long term climate variability</li> <li>Allows for phasing</li> </ul>	<ul style="list-style-type: none"> <li>Reverse osmosis concentrate management for injections wells and Los Gatos Ponds projects</li> <li>Uncertainty with agreements with San Jose</li> <li>Injection well operations complex</li> <li>Potential public perception concerns</li> </ul>	3,000	\$190 million	\$2,500
<b>Potable Reuse – Injection Wells:</b> Constructs (or expands in conjunction with the Los Gatos Ponds project) potable reuse facilities for 5,000 to 15,000 AFY of groundwater injection capacity.			5,000 – 15,000	\$290 million - \$860 million	\$2,000
<b>Potable Reuse -Los Gatos Ponds:</b> Constructs facility to purify water treated at wastewater treatment plants for groundwater recharge. Potable reuse water is a high-quality, local drought-proof supply that is resistant to climate change impacts. Assumes 24,000 AFY of advanced treated recycled water would be available for groundwater recharge at existing recharge ponds in the Los Gatos Recharge System.			19,000	\$990 million	\$1,700

Project	Pros	Cons	Average Annual Yield (AFY) <sup>1</sup>	Present Value Cost to District (2017)	Cost/AF
<b>Sites Reservoir:</b> Establishes an agreement with the Sites JPA to build an off-stream reservoir (up to 1.8 MAF) north of the Delta that would collect flood flows from the Sacramento River and release them to meet water supply and environmental objectives. Assumes District's share is 24,000 AF of storage, which is used to prorate yields from the project. The project would be operated in conjunction with the SWP and CVP. In some years, District would receive less Delta-conveyed supply with the project than without the project.	<ul style="list-style-type: none"> <li>Off-stream reservoir</li> <li>Improves operational flexibility of Statewide water system</li> </ul>	<ul style="list-style-type: none"> <li>Increases reliance on the Delta</li> <li>Subject to Delta risks</li> <li>Long-term operational uncertainty</li> <li>Operational complexity</li> <li>Institutional complexity</li> </ul>	8,000	\$170 million	\$800
<b>Water Contract Purchase:</b> Purchase 20,000 AF of SWP Table A contract supply from other SWP agencies.	<ul style="list-style-type: none"> <li>Provides all year supply</li> </ul>	<ul style="list-style-type: none"> <li>Increases reliance on the Delta</li> <li>Subject to Delta risks</li> <li>Willing sellers' availability</li> </ul>	12,000	\$360 million	\$800

## APPENDIX B. WSMP 2017 PROJECT RISK ANALYSIS METHODOLOGY

### CONTENTS

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## BACKGROUND:

At the expert panel meeting on June 8, 2017, a panel member suggested that the Water Supply Planning team conduct a risk assessment on the projects being considered as part of the WSMP. A participant at the expert panel meeting suggested using a Paired Comparison Analysis. The WSMP project team and expert panel brainstormed elements of project risk, which the technical team then used to create risk categories that encompassed the risk elements. After the meeting, the project team identified internal subject matter experts for each risk category to participate in the paired comparison risk assessment. The project team then decided to combine the paired comparison risk analysis with a traditional risk ranking (severity and likelihood) to better understand the relative magnitude of each risk. This provides a detailed explanation of the methodology employed. The results and conclusions are presented in the September 8, 2017, *WSMP 2017 – PROJECT RISKS: Results of Pairwise and Traditional Risk Analyses*.

## RISK CATEGORIES

The WSMP project team reviewed the risk elements brainstormed during the expert panel meeting and grouped them into four risk categories: stakeholder, implementation, operations, and cost (Table 1). The risk categories reflect the different stages of a project where risk can occur. Each project requires approval or support from a diverse set of stakeholders, ranging from the public to the Board of Directors. This may be needed only at the beginning of a project, or throughout as is the case with regulatory approval. Once a project is supported by stakeholders, the project enters the planning/implementation phase. Implementation risks capture risks that occur during planning, design, permitting, and construction. The cost risk category encompasses elements of uncertainty associated with the initial cost estimates through the uncertainty associated with recurring operations and maintenance costs during the project's lifespan. Once the project is implemented, issues associated with project operations will need to be addressed throughout the lifespan of the project. An example of a potential recurring operations issue is the need to re-operate as environmental regulations or climate changes.

Once the project team determined the risk categories, they reviewed risk management references to ensure they were presenting a comprehensive assessment of risk. During the literature review, the technical team found a risk category structure named POET that is analogous to their risk categorization (TRW, Inc.). POET categories include political, operational, economic, and technical, and is used to assess challenges and opportunities associated with programs, customer challenges, and strategies, regardless of the size and complexity.

- Political: Assess and articulate associated leadership, mission/business decision drivers, organizational strengths/weaknesses, policies, governance, expectation management (e.g., stakeholder relationship), program management approach, etc.
- Operational: Obtain and evaluate mission capabilities, requirements management, operational utility, operational constraints, supporting infrastructure and processes, interoperability, supportability, etc.
- Economic: Review capital planning and investment management capabilities, and assess the maturity level of the associated processes of budgeting, cost analysis, program structure, acquisition, etc.
- Technical: Assess and determine the adequacy of planned scope/scale, technical maturity/obsolescence, policy/standards implementation, technical approach, etc.

The risk categories determined by the project team have slightly different names than the POET categories, but they cover very similar content.

Table 1: Risk Category and Risk Elements.

Risk Category	Risks
<b>Costs</b>	<ul style="list-style-type: none"> <li>• Capital costs, including quality of cost estimate</li> <li>• Costs of regulatory compliance</li> <li>• Match requirements and cost-sharing</li> <li>• Counter-party risk</li> <li>• Stakeholders and rate payer perspective and ability to pay</li> <li>• Financing and funding security</li> <li>• Scheduling issues</li> <li>• Economic fluctuations and instability</li> <li>• Stranded assets</li> </ul>
<b>Implementation</b>	<ul style="list-style-type: none"> <li>• Phasing potential</li> <li>• Required time table</li> <li>• Reoperation requirements</li> <li>• Land availability</li> <li>• Constructability (e.g., structural issues, technology)</li> <li>• Managerial capacity (knowledge and resource availability)</li> <li>• Range of implementation options</li> <li>• Regulatory requirements</li> <li>• Project planning maturity</li> </ul>
<b>Operations</b>	<ul style="list-style-type: none"> <li>• Climate change</li> <li>• Yield variability and reliability</li> <li>• Operating Partnerships</li> <li>• Uncertainty of long-term operations and maintenance costs</li> <li>• Project inter-dependency</li> <li>• Environmental and water quality regulations</li> <li>• Control</li> <li>• Appropriate infrastructure</li> <li>• Redundancy</li> <li>• Emergency operations/asset failures</li> </ul>
<b>Stakeholders</b>	<ul style="list-style-type: none"> <li>• Public support</li> <li>• Permitting risks</li> <li>• Media</li> <li>• Internal stakeholder concerns</li> <li>• External stakeholder opposition</li> <li>• Environmental/special interest groups</li> <li>• Partnership risks</li> <li>• Government stakeholders</li> <li>• Costs</li> </ul>



## WSMP PROJECT RISK ASSESSMENT

After a review of risk assessment methodologies, the project team determined that while a pairwise comparison provides the relative risk ranking of projects, it does not indicate how much riskier one project is in comparison to one of lower rank. To quantify the magnitude of risk, the project team decided to add an evaluation of risk severity and likelihood.

To complete the risk assessment, the project team assembled five to six subject matter experts from the District into four groups, one group for each risk category. The team chose District experts that had knowledge specific to their assigned risk category (Table 1). At each of the four risk assessment meetings, the following agenda was followed:

- 1) Projects were discussed to the experts could understand the projects sufficiently to perform their analysis.
- 2) District experts reviewed and brainstormed additional elements of risk associated with the category.
- 3) District experts independently completed a pairwise comparison.
- 4) A meeting facilitator tallied the pairwise comparisons during the meeting and the District experts discussed some of the project comparisons where experts had disagreements.
- 5) District experts independently completed the risk magnitude assessment, which was tallied afterwards.

After this assessment was completed, the project team added four additional projects to the list. This required the analysis to be conducted again with the added projects. The same process was followed for the second analysis, with the following exceptions:

- A subset of the same staff was used in the second analysis, with four to five experts per category.
- The subject matter experts did not meet in person for the second analysis, so there was not the same level of discussion or ability to ask questions about projects as during the first analysis.

### PAIRED COMPARISON

The subject matter experts received a matrix of the projects where they could complete their paired comparisons (Table 2A). Each expert compared one project to another and identified which project between the two is of greater risk for the risk category being evaluated. The project team then tabulated the results during the meeting for the first phase (Table 2B- All results), and the experts discussed some of the project comparisons where there was not consensus. Given time constraints, not all paired comparisons with disagreements could be discussed; instead, the project team selected the most significant disagreements for discussion. For the second phase, the experts were provided the same information and forms, and they completed the assessments on their own.

**Table 2A: Pairwise Template**

OPERATIONS Risk	Butterfield Recharge Pond <b>B</b>	Groundwater Banking South of Delta <b>G</b>	Sites Reservoir <b>S</b>	Los Vaqueros Reservoir Expansion <b>L</b>	Potable Reuse – Ford Road <b>PF</b>	Potable Reuse – Injection Wells <b>PI</b>	Imported Water Rights Purchase <b>I</b>	Pacheco Reservoir <b>PR</b>	California Waterfix <b>C</b>
Butterfield Recharge Pond <b>B</b>	X								
Groundwater Banking South of Delta <b>G</b>	X	X							
Sites Reservoir <b>S</b>	X	X	X						
Los Vaqueros Reservoir Expansion <b>L</b>	X	X	X	X					
Potable Reuse – Ford Road <b>PF</b>	X	X	X	X	X				
Potable Reuse – Injection Wells <b>PI</b>	X	X	X	X	X	X			
Imported Water Rights Purchase <b>I</b>	X	X	X	X	X	X	X		
Pacheco Reservoir <b>P</b>	X	X	X	X	X	X	X	X	
California Waterfix <b>C</b>	X	X	X	X	X	X	X	X	X

**Table 2B: Pairwise Results**

	Butterfield Recharge Pond <b>B</b>	Groundwater Banking South of Delta <b>G</b>	Sites Reservoir <b>S</b>	Los Vaqueros Reservoir Expansion <b>L</b>	Potable Reuse – Ford Road <b>PF</b>	Potable Reuse – Injection Wells <b>PI</b>	Imported Water Rights Purchase <b>I</b>	Pacheco Reservoir <b>PR</b>	California Waterfix <b>C</b>
Butterfield Recharge Pond <b>B</b>	X	G5	S5	L5	PF5	PI5	I4 B1	PR5	C5
Groundwater Banking South of Delta <b>G</b>	X	X	S5	L3 G2	PF3 G2	PI2 G3	I2 G3	PR5	C5
Sites Reservoir <b>S</b>	X	X	X	S5	S5	PI1 S4	S5	PR5	C5
Los Vaqueros Reservoir Expansion <b>L</b>	X	X	X	X	PF1 L4	PI1 L4	I1 L4	PR5	C5
Potable Reuse – Ford Road <b>PF</b>	X	X	X	X	X	PI5	I3 PF2	PR5	C5
Potable Reuse – Injection Wells <b>PI</b>	X	X	X	X	X	X	I3 PI2	PR5	C5
Imported Water Rights Purchase <b>I</b>	X	X	X	X	X	X	X	PR5	C5
Pacheco Reservoir <b>P</b>	X	X	X	X	X	X	X	X	C4 PR1
California Waterfix <b>C</b>	X	X	X	X	X	X	X	X	X

## RISK SCORING METHODOLOGY

Following the pairwise comparison, the experts scored the risk severity and likelihood for individual projects (Table 3). The goal of this risk scoring exercise is to help determine how much riskier one project is from another and to identify if the risk is primarily from the likelihood that the risk materializes, the severity of the outcome if the risk

did materialize, or both. For example, it is unlikely that an earthquake would destroy a dam, but if it did, the results could be catastrophic for life and property (low likelihood, high severity). However, when completing this exercise, experts considered all the risk elements discussed during the pairwise comparison activity to determine one project risk rating for severity and one for likelihood. The ranking criteria for each risk category is explained in detail in the next section.

**Table 3: Risk Scoring Template**

	<b>Severity of Implementation Risk Impact 1-4, 1 - Low Severity 4 - High severity</b>	<b>Likelihood of Implementation Risk Impact 1-4, 1 - Very unlikely 4 - Very likely within timeframe</b>
Butterfield Recharge Pond		
Groundwater Banking South of Delta		
Sites Reservoir		
Los Vaqueros Reservoir Expansion		
Potable Reuse – Ford Road		
Potable Reuse – Injection Wells		
Imported Water Rights Purchase		
Pacheco Reservoir		
California Waterfix		

The scores from this exercise were multiplied by the ordered ranking from the pairwise analysis to determine total risk. The following section provides detailed methods for the total risk calculation.

An example of how the subject matter experts could consider risk rating was provided, but not relied upon due to the many different sub-elements of risk to consider.

**EXAMPLE:**

Rank the **likelihood** of a stakeholder risk adversely impacting the project

1 = Very unlikely – Support available within 5 to 10 years

2 = Unlikely – appropriate support will Probably be garnered within 5 to 10 years

3 = Likely - Probably will NOT get support within 5 to 10 years

4 = Very likely - Almost certain NOT to get needed support within 5 to 10 years

Rank the **severity** of a stakeholder risk adversely impacting the project:

1 = Low – Stakeholder support exists or lack of support will not affect project success

- 2 = Medium –Potential for stakeholder issues to impact project success
- 3 = High – Potential for stakeholder issues to significantly impact project success
- 4 = Very High – Likely that lack of stakeholder support would result in project failure

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## TOTAL PROJECT RISK CALCULATION

The project team calculated category risk for each project by weighting the pairwise ranking by the severity and likelihood (equation 1). Then, the category risks were summed to obtain each project's total risk.

Equation 1

$$Risk_{category} = (1 + \frac{Severity + Likelihood}{8}) \times Pairwise\ Ranking$$

The severity and likelihood score is divided by eight (the maximum possible combined score) to represent severity and likelihood as a portion of the maximum possible combined score. The technical team then added that proportion to one (1) so that the pairwise analysis remains the primary driver of the order of risk, and then the severity and likelihood is a multiplicative factor that acts on the risk ranking. If the severity and likelihood is significant, it will substantially increase the total risk score. If the severity and likelihood score are small, there will be little impact on the total risk score. Alternatively, not adding one (1) to the severity and likelihood proportion would result in the severity and likelihood decreasing the ranking number unless the severity and likelihood proportion equals one.

## CONCLUSION

The risk assessment methods were easy to apply to the projects and provided a robust and multi-variant method assess risks associated with each project. However, explaining the methods clearly to the subject matter experts was needed. Since the second phase of review with the added project did not include discussions or the opportunity to ask questions, it may have been subject to less project understanding by the experts.

The results are discussed in September 8, 2017, *WSMP 2017 – PROJECT RISKS: Results of Pairwise and Traditional Risk Analyses*.

# DRAFT MASTER PLAN IMPLEMENTATION SCHEDULE

Project	Now – 2024	2025 – 2029	2030 – 2034	2035-2039
Delta Conveyance Project	<ul style="list-style-type: none"> <li>• Permitting</li> <li>• Design</li> <li>• “Validation Action”</li> </ul>	Construction	Construction	Operation
Additional Conservation & Stormwater Projects	<ul style="list-style-type: none"> <li>• Continue implementing stormwater rebates and graywater program</li> <li>• Design and begin implementing AMI program</li> <li>• Work with jurisdictions to adopt Model Ordinance</li> <li>• Develop Ag Land Recharge pilot project</li> <li>• Monitor stormwater capture projects</li> </ul>	<ul style="list-style-type: none"> <li>• Continue implementing stormwater rebates, graywater program, AMI</li> <li>• Support implementation of Model Ordinance</li> <li>• Develop leak repair incentive program</li> <li>• Design Ag Land Recharge and stormwater capture project(s)</li> </ul>	<ul style="list-style-type: none"> <li>• Continue implementing stormwater rebates, graywater program, AMI</li> <li>• Support implementation of Model Ordinance</li> <li>• Implement leak repair incentive program</li> <li>• Design and construct Ag Land Recharge and stormwater capture project(s)</li> </ul>	<ul style="list-style-type: none"> <li>• Continue implementing stormwater rebates, graywater program, AMI, leak repair incentive program, and Ag Land Recharge and stormwater capture project(s)</li> <li>• Support implementation of Model Ordinance</li> <li>• Construct stormwater capture project(s)</li> </ul>
Potable Reuse	<ul style="list-style-type: none"> <li>• Complete Countywide Reuse Plan</li> <li>• MOU(s) with wastewater provider (s)</li> <li>• Select P3 entity</li> <li>• EIR</li> <li>• Design</li> </ul>	Construction	Operation	Operation
Pacheco Reservoir Expansion	<ul style="list-style-type: none"> <li>• EIR/Feasibility Study</li> <li>• Permitting</li> <li>• Planning and Design</li> </ul>	Construction	Operation	Operation
Transfer Bethany Pipeline	<ul style="list-style-type: none"> <li>• EIR/Feasibility Study</li> <li>• Permitting</li> <li>• Planning, Design, and Construction</li> </ul>	Operation	Operation	Operation
South County Recharge		Planning, Design, and Permitting	Construction	Operation

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# Santa Clara Valley Water District

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File No.: 19-0625

Agenda Date: 7/15/2019

Item No.: 5.2.

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## COMMITTEE AGENDA MEMORANDUM

### Environmental and Water Resources Committee

#### SUBJECT:

Discuss Policy Framework and Outreach Plan for Use of Santa Clara Valley Water District Property for Trails.

#### RECOMMENDATION:

This is a discussion item and no action is required. However, the Committee may make recommendations for Board consideration.

#### SUMMARY:

Santa Clara Valley Water District (Valley Water) policies provide for trails and other recreational uses of its lands that are compatible with its water supply, flood protection, and environmental stewardship mission, and do not unduly impact operations. In practice, it is often challenging for proposed trails to meet these objectives. At the same time, the Board wishes to promote trails and access to open space; in FY2017-2018, the Board Strategic Challenges Report recognized that "current Board Policy does not adequately express Board's full support of trails." Finally, public interest both for and against trails is high, resulting in the need for clear policy objectives. At this time, specific trails projects are not being recommended for approval nor will action be taken by the Board on any policy item.

#### Trails Policy Framework

New Board and/or administrative policy may be necessary to ensure compatibility between Valley Water's objectives of promoting trails, protecting the environment, and providing for flood protection and a reliable water supply. A new Trails Policy (Board policy) would provide compatibility criteria for trails proposed on Valley Water lands. To supplement the Trails Policy, a Trails Toolkit (administrative policy) would clarify Valley Water's interests in trail design, construction, and maintenance standards. A Trails Toolkit would provide objective guidance for trails projects to meet the compatibility criteria.

#### Public Outreach Plan

Broad community input is critical to create an effective trails policy. To ensure balanced yet productive input, staff are proposing a multifaceted outreach process. First, a technical advisory committee (TAC) will be formed in summer 2019 to develop conceptual policy criteria and compile a toolkit of standards, rules, and best practices for trails on Valley Water lands. The TAC will be composed of professional trails practitioners with current and local expertise in trail design, planning and construction, and who are experienced in the process of balancing public access with environmental stewardship and operational objectives.

After draft concepts for the Trails Policy and Toolkit are developed by the TAC, five community workshops will be held in the north, central, and south areas of Santa Clara County in fall 2019. Three workshops will be held in the central area to capture input from a broad range of communities. Stakeholder outreach will occur prior to the community meetings to ensure attendance by trails users and advocates, bicycle and trails committees, environmental groups, and neighbors of current proposed trail projects. To maintain the distinction between Valley Water's policy development and individual cities' project planning and development, specific trails projects will not be presented for feedback at the community workshops. Feedback from the community workshops will be incorporated by the TAC into a revised draft Trails Policy and Toolkit.

The draft Trails Policy and Toolkit will then be presented to Board advisory committees including the Youth Commission, the Water Commission, the Ag Commission and the Environmental and Water Resources Committee. Following input from the advisory committees, the final proposed Trails Policy and Toolkit will be presented to the Board of Directors for approval.

#### Prior Board or Committee Review

At its January 10, 2017 Regular Meeting, the Board received information regarding the successes and challenges of trails on Valley Water property. The Board expressed a desire to conduct outreach on trails with various stakeholder groups. On August 11, 2017, an update was provided, in which staff relayed plans to conduct stakeholder outreach. Following this, the Board hosted a Trails and Waterways Summit in June 2018 to gather stakeholder input and develop collaborations to meet common challenges related to trails. A list of Summit attendees, and "solutions/commitments" from Summit breakout sessions, is included as Attachment 2. Trail-related public comments received since the Summit is included as Attachment 3.

In December 2018, a staff task force was formed to address outstanding trails issues. At its February 25, 2019 meeting, the Board Policy and Planning Committee reviewed staff's proposed Trails Policy framework, public outreach plan, and timeline. Subsequently, at its March 26 meeting, the Committee confirmed general membership of the TAC, clarified that the TAC would incorporate feedback from community meetings, and requested that additional public meetings be added in the central county. The Committee directed staff to present the proposed trails policy framework to the full Board for review and feedback.

On June 11, 2019, the Board received an informational presentation on staff's recommendations for a Trails Policy framework and public outreach plan. The Board directed staff to proceed with the policy development through the TAC and community meetings.

#### FINANCIAL IMPACT :

There is no financial impact associated with this item.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have the



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potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

ATTACHMENTS:

Attachment 1: PowerPoint

Attachment 2: June 2018 Trails Summit Attendee List and Summary

Attachment 3: PLACEHOLDER Trail-related Board Correspondence Received Since Trails Summit

UNCLASSIFIED MANAGER:

Lisa Bankosh, 408-630-2618

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# Valley Water

Clean Water • Healthy Environment • Flood Protection



# Policy for Use of Valley Water Property for Trails

June 11, 2019

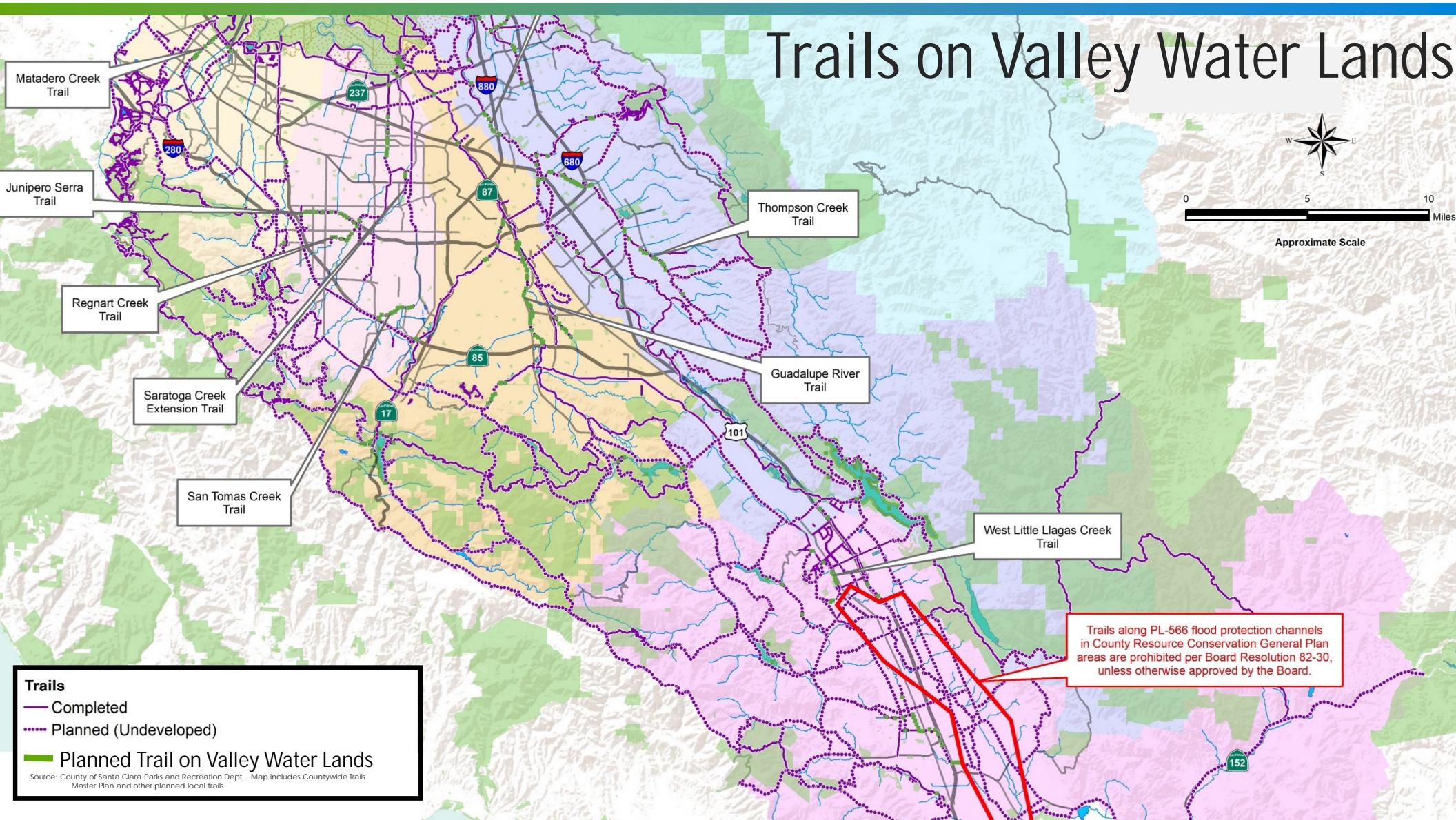


## Recommendation

Review and provide input on the proposed trails policy framework, and direct staff to proceed with the proposed public outreach plan.



# Trails on Valley Water Lands



# Existing Policy

5

- Board Resolution 72-44 Recreational Uses of Groundwater Recharge Facilities

- Board Resolution 74-38 Joint Public Use of District Facilities

It is in the public interest to secure diversified uses of District property to the greatest extent compatible with the primary purpose of such property.

The use shall not unduly interfere with the District's use and that the agency making the joint use will through terms of an agreement take full responsibility for the installation, maintenance and removal of improvements convenient for the joint use.

- Board Resolution 82-30 Joint Use of Llagas Creek PL 566 Watershed Projects



# What is a Compatible Trail?

1. Existing Board policy may lack sufficient criteria to guide staff in determining whether proposed trails are compatible and appropriate ([Need for new Board policy?](#))
1. Existing administrative policy may not provide clear trail design, construction, and maintenance standards and guidelines, to ensure criteria are met ([Need for revision of Water Resources Protection Manual to create a “trails toolkit”?](#))





# Existing Policy

## Board Governance Ends Policy 4.2.1:

Support healthy communities by providing access to additional trails, parks, and open space along creeks and in the watersheds.

CEO Interpretation: Outcome Measures: OM 4.2.1.a Provide 7 grant cycles and additional partnerships for \$21 million that follow pre-established criteria related to the creation or restoration of wetlands, riparian habitat and favorable stream conditions for fisheries and wildlife, and providing new public access to trails through 2028. (SCW D3) Strategies: S 4.2.1.1. Work with other entities for planning, design, construction, maintenance, and operation of trails/open space amenities. S 4.2.1.2 Increase public access to District lands as appropriate; extend trails networks. S 4.2.1.3 Support creek-side or water related recreation, as appropriate.

# Existing Policy

**Board Governance Ends Policy 4.2.2:**  
Support healthy communities by providing appropriate access to District facilities.

CEO Interpretation: Outcome Measures: OM 4.2.2.a. Agreements with responsible partner agencies are in place for appropriate public access to District facilities. Strategies: S 4.2.2.1. Enter into partnership agreements to provide appropriate public access to District facilities. CEO Direction: D 4.2.2.1.a. Provisions of partner agreements minimize District expenditures and ensure that partner agencies assume all liability for public access. D 4.2.2.1.b. Provisions of partner agreements clearly confirm that any public access or recreation is subject to the district's ability to perform its primary mission, including the operation of reservoirs for water supply and flood control, sustaining water quality to meet regulatory standards, and meeting environmental objectives.

# Potential Trail Impacts

Tree & Limb Removal



## Biological Impacts

- Native tree removal and habitat loss
- Decreased suitability of habitat to support special status species

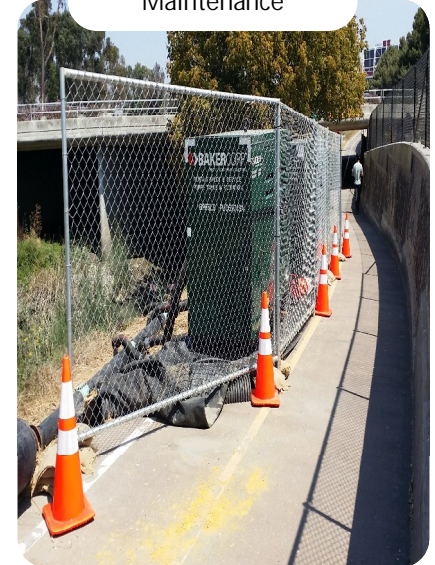
Bank Erosion



## Water Quality Impacts

- Erosion and sedimentation
- Trash and other Pollutants

Maintenance



## Other Impacts

- Hydraulic Impacts
- Operational and Maintenance Impacts
- Loss of Mitigation Opportunities



# Potential Trail Benefits

- Fulfills requirements of District-supported regional trails plan
- Provides regional trail connection that would benefit a broad range of users
- Provides alternative transportation corridor (commuter route)
- Improves access and recreation to underserved communities
- Provides legitimate use and regular maintenance to address illegal uses
- Provides environmental stewardship partnership opportunity



# Proposed Board Policy Framework

Goal: Provide criteria to determine compatibility of proposed new trails with District stewardship and operational objectives.

Example Criteria:

1. Overall project results in a neutral or beneficial effect on biological resources and water quality.
2. Project does not adversely affect channel stability, level of flood protection, or increase the extent or frequency of flooding.
3. Project does not impede maintenance of District facilities or adversely affect operational functions.

# Proposed Trails Toolkit

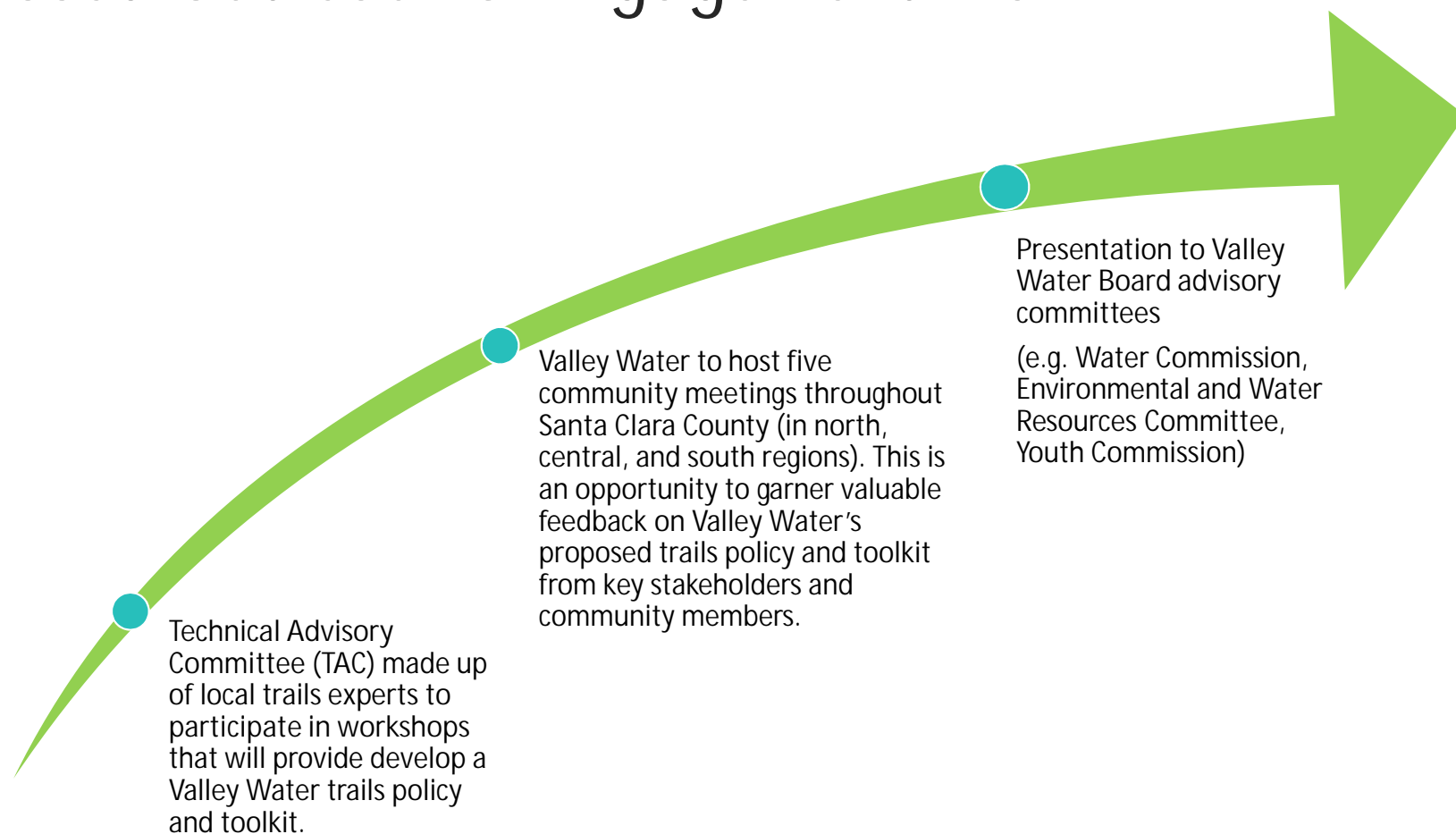
**Goal:** Revise District Water Resources Protection Manual to provide clear trail design, construction, and maintenance standards and guidelines.

Example Standards and Guidelines:

1. New trails: standard trail siting, width, surfacing, drainage design
2. New bridges and crossings: design characteristics to minimize biological impacts and avoid hydraulic impacts
3. Covert road to trail: standards for maintenance access
4. Safety features: standard details for wildlife-friendly lighting, railings, curb stop and signage
5. Maintenance and patrol guidelines

# Proposed Outreach & Engagement Plan

13



# Community Outreach

## Proposed TAC of trails experts:

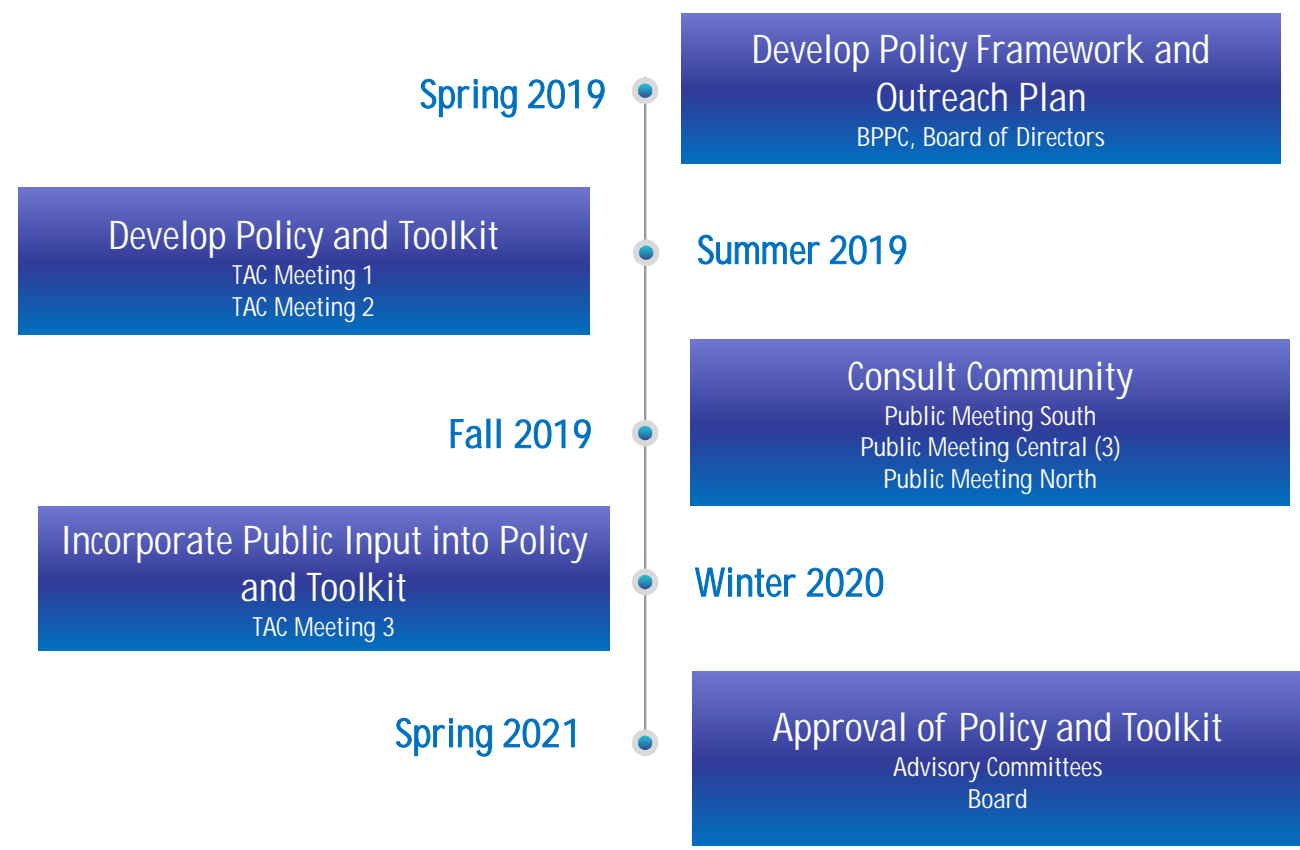
- Santa Clara County, Cities
- Santa Clara Valley Open Space Authority
- Valley Transportation Agency
- Midpeninsula Regional Open Space District
- California Department of Fish & Wildlife
- San Francisco Bay Regional Water Quality Control Board

## Community Meeting Proposed Outreach:

- Sierra Club
- Audubon Society
- League of Conservation Voters
- Conservation Corps
- Save Our Trails
- Silicon Valley Bike Coalition
- Friends of Stevens Creek Trail
- Bay Area Ridge Trail Council
- Equestrian Trail Riders Action Committee
- Almaden Cycle Touring Club
- United Neighborhoods of Silicon Valley
- Committee for Green Foothills
- Grassroots Ecology
- Loma Prieta Resource Conservation District
- Guadalupe-Coyote Resource Conservation
- Apple
- Google
- Facebook
- General Public



# Trails Policy Development Timeline





# Valley Water

Clean Water • Healthy Environment • Flood Protection



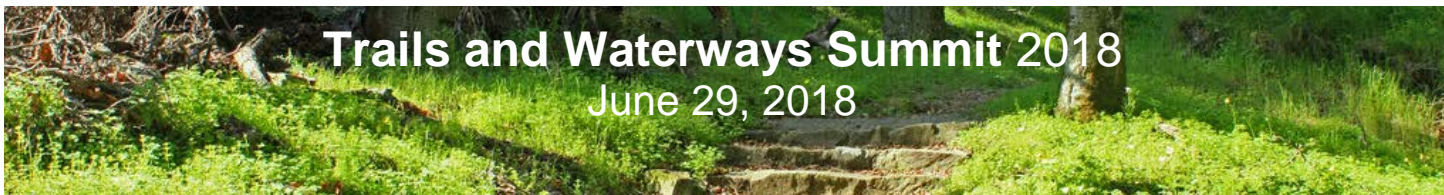
## Trails and Waterways Summit 2018

### Attendee Roster

First Name	Last Name	Company	Email
Steve	Achabal	City of Mountain View	stephen.achabal@mountainview.gov
Teresa	Alvarado	SPUR	talvarado@spur.org
Larry	Ames	Committee for Green Foothills	lames@aol.com
Yvonne	Arroyo	Santa Clara Valley Water District	yarroyo@valleywater.org
Rechelle	Blank	Santa Clara Valley Water District	rblank@valleywater.org
Nicolle	Burnham	City of San Jose	nicolle.burnham@sanjoseca.gov
Todd	Capurso	City of Campbell	todd.capurso@sbcglobal.net
Usha	Chatwani	Santa Clara Valley Water District	uchatwani@valleywater.org
Yat	Cho	City of Morgan Hill	yat.cho@morganhill.ca.gov
Jennifer	Chu	City of Cupertino	jenniferc@cupertino.org
Andrew	Crabtree	City of Santa Clara	acrabtree@santaclaraca.gov
Alissa	Evans	Canyon Snow Consulting	alissaevans@canyonsnow.com
John	Falkowski	Santa Clara County Parks and Recreation	john.falkowski@prk.sccgov.org
Mike	Flaughner	Open Space Authority	mikeflaughner@yahoo.com
Rachael	Gibson	Santa Clara Valley Water District	rgibson@valleywater.org
Vincent	Gin	Santa Clara Valley Water District	vgin@valleywater.org
Chad	Grande	Santa Clara Valley Water District	cgrande@valleywater.org
Colleen	Haggerty	Santa Clara Valley Water District	chaggerty@valleywater.org
Gary	Heap	City of Gilroy	gary.heap@cityofgilroy.org
Frances	Herbert	San Jose Vice Mayor Magdalena Carrasco	frances.herbert@sanjoseca.gov
Rob	Hill	City of Milpitas	rhill@cityofmilpitas.ca.gov
Virginia	Holtz	Open Space Authority	vholtz@openspaceauthority.org
Joy	Houghton	City of Mountain View	joy.houghton@mountainview.gov
Joshua	Hugg	Midpensinsula Regional Open Space District	jhugg@openspace.org
Nohely	Izquierdo	San Jose Councilmember Dev Davis	nohely.izquierdo@sanjoseca.gov
Jennifer	Johnson	Canyon Snow Consulting	jenniferjohnson@canyonsnow.com
Candace	Joy	Santa Clara County Supervisor Joe Simitian	candace.joy@bos.sccgov.org
Barbara	Keegan	Santa Clara Valley Water District	ckwok-smith@valleywater.org
Ken	Kelly	United Neighborhoods of Silicon Valley	kk@unscv.org
Yoriko	Kishimoto	Midpensinsula Regional Open Space District	ykishimoto@openspace.org
Theresa	Krakov	Santa Clara Valley Water District	tkrakov@valleywater.org
Marc	Landgraf	Santa Clara Valley Open Space Authority	mlandgraf@openspaceauthority.org
Albert	Le	PG&E	albert.le@pge.com
Anthony	Le	Almaden Cycle Touring Club	president@actc.org

## Attendee Roster

First Name	Last Name	Company	Email
Lauren	Ledbetter	Valley Transportation Agency	lauren.ledbetter@vta.org
Lynette	Lee Eng	City of Los Altos	lynetteleeeng@sbcglobal.net
Linda	LeZotte	Santa Clara Valley Water District	llezotte@valleywater.org
Jay	Lin	Midpensinsula Regional Open Space District	jlin@openspace.org
Brian	Malone	Midpensinsula Regional Open Space District	bmalone@openspace.org
Jane	Mark	Midpensinsula Regional Open Space District	jmark@openspace.org
Lisa	Matichak	City of Mountain View	lisa.matichak@mountainview.gov
Janet	McBride	Bay Area Ridge Trail Council	janetmcbride@ridgetrail.org
Megan	Medeiros	Committee for Green Foothills	megan@greenfoothills.org
Craig	Mobeck	City of Santa Clara	cmobeck@santaclaraca.gov
Dorsey	Moore	Open Space Authority	dmoore@sjcccs.org
Salome	Munoz	San Jose Conservation Corps & Charter School	smunoz@sjcccs.org
Jack	Nadeau	Save Our Trails	gingerjax@aol.com
Tony	Ndah	City of Milpitas	tndah@ci.milpitas.ca.gov
Tim	Oey	Friends of Stevens Creek Trail	tim@oey.us
Cherise	Orange	Santa Clara County Parks and Recreation	cherise.orange@prk.sccgov.org
Ben	Pacho	Silicon Valley Bicycle Coalition	ben@bikesiliconvalley.org
Donna	Plunkett	Open Space Authority	dplunkett@openspaceauthority.org
Jessy	Pu	Town of Los Gatos	jpu@losgatosca.gov
Bill	Rankin	Ridge Trail / Save Our Trails	bill@networks.com
Melanie	Richardson	Santa Clara Valley Water District	mrichardson@valleywater.org
Susie	Rodriguez	Santa Clara Valley Water District	srodriguez@valleywater.org
Richard	Santos	Santa Clara Valley Water District	ckwok-smith@valleywater.org
Matt	Savage	City of San Jose	matthew.savage@sanjoseca.gov
Steven	Scharf	City of Cupertino	sscharf@cupertino.org
Lenny	Siegel	City of Mountain View	lenny.siegel@mountainview.gov
Pat	Showalter	City of Mountain View	Pat.Showalter@mountainview.gov
Jim	Stallman	Trails Advisory Committee, Saratoga	2jimstallman@gmail.com
Kent	Steffens	City of Sunnyvale	ksteffens@sunnyvale.ca.gov
Annie	Thomson	County of Santa County Parks	annie.thomson@prk.sccgov.org
Sue	Tippets	Santa Clara Valley Water District	stippets@valleywater.org
Omar	Torres	San Jose Vice Mayor Magdalena Carrasco	omar.torres@sanjoseca.gov
Sherilyn	Tran	Santa Clara Valley Water District	stran@valleywater.org
Vanessa	Turner	Santa Clara County Supervisor Dave Cortese	vanessa.turner@bos.sccgov.org
John	Varela	Santa Clara Valley Water District	ckwok-smith@valleywater.org
Gary	Welling	City of Santa Clara	gwelling@santaclaraca.gov
Liz	Westbrook	Bay Area Ridge Trail Council	lizwestbrook@ridgetrail.org
Yves	Zsutty	City of San Jose	yves.zsutty@sanjoseca.gov



## Breakout Session Notes: Issues, Solutions and Commitments

### TABLE 1

#### Breakout Session 1--Issues:

- Communication between public agencies, etc.
- Right of way, boundaries, land ownership
- Engineering – multiple uses in one area
- Not involving the public earlier in the process

#### Breakout Session 2--Solutions/Commitments:

- Want a public trail summit; everyone can come and understand projects
- Have a public trails day – get them outside, show them importance of trails, education, walk with them and show regional connections

### TABLE 2

#### Breakout Session 1--Issues:

- Data availability
- Funding information and availability
  - o Capital projects versus funding for general - gap that exists

#### Breakout Session 2--Solutions/Commitments:

- Comprehensive GIS database
  - o Including outreach and integration with all agencies
  - o Roles and responsibilities of each organization – not just collation, but experts communicating on-the-ground data to a central organization

### TABLE 3

#### Breakout Session 1--Issues:

- Building trails
  - o Lack of funding for acquisition, capital, O+M
  - o Regulatory oversight fragmentation – need better coordination and streamlined permitting
- Trail use:
  - o Recreation vs. Transportation - conflicting uses, need better education and signage and separation

#### Breakout Session 2--Solutions/Commitments:

- SCVWD will host another trail summit
- New trails coordinator for SCVWD will be THE point of contact for all things trails - important to have ONE person
- Each agency in county needs to designate a “trails discussion” person. So you know who to talk to.
- Increase involvement of private sector- need to have SPECIFIC asks for better response
- Need better education about specific trail usage, purpose, and reasoning
- Early consultation with SCVWD as trails are considered and planned

#### **TABLE 4**

##### **Breakout Session 1--Issues:**

- Social justice:
  - o Disparity in East and West trails (high usage equals planned growth – all in West; needs to change)
- Safety:
  - o Homelessness
  - o No park rangers

##### **Breakout Session 2--Solutions/Commitments:**

- Targeted funding for “trail deficient” communities
- Grants or a portion of grants allocated for underserved/overused areas

#### **TABLE 5**

##### **Breakout Session 1--Issues:**

- Homelessness
- Neighborhood Cooperation
- Inter-jurisdictional coordination
- Land use
- Education

##### **Breakout Session 2--Solutions/Commitments:**

- Inter-jurisdictional coordination
  - o Buy-in
  - o Experts in habitat
  - o Early involvement
  - o Empower district trail coordinator

#### **TABLE 6**

##### **Breakout Session 1--Issues:**

- Funding
- Environmental vs. use
- Homelessness

##### **Breakout Session 2--Solutions/Commitments:**

- Education
  - o Need more intergovernmental and inter-agency communication
  - o More summits, more meetings, more events
  - o Hyper local issues and regional
- Sources of funding; direction from sources on what apps are look for specifically
- Community outreach to combat NIMBY-ism
- Elevate ideas to next level to continue conversation; figure out exact ask for organizations

#### **TABLE 7**

##### **Breakout Session 1--Issues:**

- Community non-support/opposition for trails projects
- Lack of creative problem-solving within our agencies

##### **Breakout Session 2--Solutions/Commitments:**

- Community outreach need to be targets with right engagement of people, empower staff, empower electeds; we need the positive to balance out the negative
- Communication with different agencies that is effective problem solving, not just identifying constraints and issues
- Commitment: VTA, OSA, County Parks, SCVWD, and MidPen will develop a vision for the county-wide network of trails and develop an informative, exciting, educational presentation to deliver to electeds, city managers and the community to foster support for the vision.

**TABLE 8****Breakout Session 1--Issues:**

- Working across agency boundaries
- Funding

**Breakout Session 2--Solutions/Commitments:**

- Start early with funding
- Empower county, NPC or VTA
- Regional GIS mapping system for comprehensive analysis of trails in area
- The contact list is a tool, we will network early and often, network over lunch (in Campbell!)
- Find a way to talk about riparian corridor as value for trails

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**Melissa Stone**

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**From:** julia miyakawa <jemiyakawa@hotmail.com>  
**Sent:** Monday, July 30, 2018 8:44 PM  
**To:** Clerk of the Board  
**Subject:** Revised Encroachment Remediation Program

Board members,

I received letter regarding meeting. I live on Farallone Dr. in Cupertino, right behind Regnart Creek. The City of Cupertino has a proposal to open up the creek for pedestrian and bicycle path. We residents living behind this creek are very concerned for safety, privacy and security. We are also for the safety of the users. We realize the city has an agreement with the water district to use it as a path.

We have owned our home for 44 years, before the cyclone fence was erected to block the creek from the public. We remember the problems of debris being thrown over our back fences, broken windows, motor bikes driven along the creek, the noise, people jumping over our fence for short cut through the neighborhood. In fact this is still occurring.

We realize trees will be cut down, but aren't oak trees protected? Majority of residents living along the creek are opposed. We have signs in our front yards, indicating our opposition and a few scattered around the area.

Nai Hsueh, represents our district. Hopefully she supports our position to stop this insane proposal.

Respectfully,

Julia Miyakawa  
10345 Farallone Dr.  
Cupertino, Ca 95014

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Referred  
C-18-0140

**Melissa Stone**

**From:** Board of Directors  
**Subject:** FW: Revised Encroachment Remediation Program

**From:** Melissa Stone **On Behalf Of** Clerk of the Board  
**Sent:** Wednesday, August 15, 2018 2:36 PM  
**To:** 'julia miyakawa' <jemiyakawa@hotmail.com>  
**Cc:** Board of Directors <board@valleywater.org>  
**Subject:** RE: Revised Encroachment Remediation Program

**Sent on behalf of Chair Santos and Director Hsueh**

Dear Ms. Miyakawa,

Thank you for your e-mail dated July 30, 2018, regarding your concerns with the City of Cupertino's (City) plans for a new trail along Regnart Creek in your neighborhood. You are correct that the City currently has a proposal to use portions of Regnart Creek from Pacifica Drive to E. Estates Drive as a public trail, and would connect to the existing trail into Creekside Park. Santa Clara Valley Water District (District) staff have been in discussions with City staff during the planning and public input process which is currently underway. Since 1974, the District's Board of Directors (Board) has had a policy to allow joint public use of District facilities when an agency, such as the City, requests to use District property for public recreational uses, so long as the use does not adversely impact District operations and the agency takes responsibility for the public's use of the property, and for securing input from the community, including adjacent property owners prior to the construction of trail.

We understand that the City has held several public meetings in your neighborhood to gather comments for incorporation into a feasibility study. Prior to approving any final trail alignments, the City would also need to undertake a California Environmental Quality Act study, which includes another public comment process. Additionally, in accordance with our own Board policy, extending the existing trail on District property would require the City to enter into a new joint use agreement with us. The Board would consider this joint use agreement at a future Board meeting, which would provide the public yet another opportunity to voice any comments and concerns. Generally, the District defers land use decisions regarding recreational facilities to the cities and County, and limits our review to how such improvements will impact our flood protection, stream stewardship or water supply operations. However, the Board is also sensitive to the community as our neighbors. So your neighborhood's concerns will be considered, along with the City's efforts to ameliorate those concerns, and the benefits the project will provide to the community at-large, prior to any Board decision.

Below is a link to the City's website with information on the project, documentation from public meetings, and updates on the status of their project, so that you may stay informed on the project's progress and see other comments made by the community regarding the project:

<https://www.cupertino.org/our-city/departments/public-works/transportation-mobility/bicycle-and-pedestrian-travel/bicycle-transportation-plan-implementation/regnart-creek-trail>

Please feel free to contact Ms. Usha Chatwani, Community Projects Review Manager, at (408) 630-2731, if you have any additional concerns or questions about the District's review process for these types of projects.

Sincerely,



Richard P. Santos  
Chair/Board of Directors



Nai Hsueh  
Director, District 5

C-18-0140

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## Melissa Stone

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**From:** Linda Wyckoff <lwyckoff2@yahoo.com>  
**Sent:** Wednesday, August 29, 2018 8:36 PM  
**To:** Board of Directors  
**Subject:** Fw: Liability issues regarding Regnart Creek Path

Hello Members of the Water District Board,

I was at the Water District Board meeting on Tuesday night and was so impressed to see that 'democracy in action' is still alive in our area. It was an excellent meeting.

I am part of the leadership group for my neighborhood that has been working to prevent the opening of Regnart Creek Path, part of the "Path to Nowhere" known as the Cupertino Loop. We have been voicing our concerns to the city since we first learned about the potential opening of the path last November. I am forwarding an email that I sent to the members of the Cupertino City Council and city staff before City Council took a unanimous vote on July 21st to proceed with the feasibility study of this path. I received no response emails from any members of our City Council regarding my email. In 2005, the neighborhood was called to action to oppose a similar proposal by the city and at that time, the City Council voted unanimously to remove the plans for this path from the General Plan. This time around, we were told that what happened in 2005 "will not happen again" and, indeed, it feels like we are having the path pushed firmly down our throats.

We are learning that there were several joint Water District Board and Cupertino city staff meetings at which the proposed Regnart Creek Path was discussed. Creek neighbors were not invited to any of these meetings. It is highly doubtful that representatives of the city informed you of the nearly unanimous neighborhood opposition to the proposed path. 95% percent of the 82 homes directly in contact with the creek are opposed to it for so many reasons. On a petition, we collected 400 hand-gathered signatures of **neighbors directly impacted by this path** to voice their opposition of the path. Path proponents gathered a mere 490 signatures via an e-petition that was widely broadcast via the Mercury News, biking coalitions and on social media to the entire region.

We would love to walk the proposed path with you to show you firsthand our concerns about the safety for users of this path and the disregard for homeowners along it. The path is mostly hidden from public view and proponents have built it up to be some sort of Garden of Eden with artist's renderings and speaking of it with such glowing terms when even some major supporters had not even walked, therefore seen, this path!

In my letter, I do not cover all of the concerns we have, others will fill you in. Instead, my focus is on liability.

Respectfully,  
Linda Wyckoff

----- Forwarded Message -----

**From:** Linda Wyckoff <lwyckoff2@yahoo.com>  
**To:** dpaul@cupertino.org <dpaul@cupertino.org>; rsinks@cupertino.org <rsinks@cupertino.org>; svaidthyanathan@cupertino.org <svaidthyanathan@cupertino.org>; bchang@cupertino.org <bchang@cupertino.org>; sscharf@cupertino.org <sscharf@cupertino.org>; Timm Borden <timmb@cupertino.org>; manager@cupertino.org <manager@cupertino.org>  
**Sent:** Saturday, August 11, 2018, 9:31:36 PM PDT  
**Subject:** Liability issues regarding Regnart Creek Path

Dear Esteemed Council Members, Ms. Chan, Mr. Borden and Mr. Paulsen,

Referred  
C-18-0160

I email you today to voice my concern about liability for the City of Cupertino with regard to the proposed Regnart Creek Path. I will be unable to attend the City Council meeting on August 21<sup>st</sup> so I will impart my remarks to you via this email. This path is stated in the draft of the Feasibility Study to be a primarily recreational trail on page 5, while on page 56 of this document, it states that the City of Cupertino would be the responsible party in regards to maintenance and liability of the trail.

In the early 2000's there was a case Prokop vs. the City of Los Angeles. David Prokop sued Los Angeles, seeking damages for injuries he suffered while cycling along a bike path designed by the city. He was attempting to cycle through an opening to the path, ignoring the message painted on the pavement that stated "WALK BIKE," when he collided with a chain link fence, causing a severe laceration to his forehead, loss of consciousness and neck pain. He asserted the fence was placed too close to the bike path. The courts have defined bike paths as recreational trails where users are "at their own risk." For routes deemed for transportation, the liability is borne by the city in

which the path resides. Therefore, if somehow you can have your bike path designated as a route of transportation, then you can hold the city liable for any injuries you might sustain while using it.

The Prokop case attempted to place liability back onto the city, not the users of these recreational trails. This case started a movement in California to have all cities in the state liable for injuries sustained on all paths regardless of reasons for use. Our local cycling coalition was supportive of this movement. This case was ruled in favor of the city of Los Angeles in 2007. However, now it appears that paths are being redefined as routes of transportation to school or work. This is certainly the case with Regnart Creek Path. Only the most casual of parent would allow their young child to walk or bike to school on this unsupervised path. Parents are being misled into thinking their children can benefit from this path. It is also not a particularly appropriate route for work commuters, nor for students, most all of whom could easily find more direct routes to school by utilizing existing safe streets. It may end up being only slight hyperbole to postulate that possibly the only commuting that will be done on this path is from Howard Court to City Hall, the direct path of Jennifer Shearin, by far the most vociferously outspoken proponent and spin doctor for the path.

It is said that City Council will be taking the recommendation of the Bike/Pedestrian Commission. The duty of a commission is to be unbiased so they can make a reasonable, objective and fair recommendation on a particular subject. I ask, is that happening here? Do you think any issue that does not support the commission's wish for the path will be fully considered?

Cupertino does not currently have a city attorney with whom to consult. This puts the city at a grave disadvantage. Mistakes can be made that could bankrupt the city. Opening up a recreational path such as Regnart could very well be one of those mistakes. This is a path that has been designed by proxy. Guidelines by many different governing agencies were used to cobble together the least restrictive design requirements possible. It should be called Frankenpath.

The proposed path has been retroactively designed to fit into a neighborhood where it does not belong, most specifically for the unfortunate residents of Lozano Lane, such as Gary Wong and his family, whose daily living environment will be impacted in a most unconscionable way. Will there be a fence erected between the trail and the creek? Will concerned homeowners' legitimate safety and privacy concerns be mitigated by one of several unappealing proposed fence / wall scenarios (refer to page 46)? Yes, we heard at "community outreach" events, only to now learn that such protective measures are unlikely. Fencing will only be erected to prevent users from leaving the trail. Lighting won't be provided. Grading where the path is significantly higher than the homes it is next to will not be provided. Obviously, cost becomes an important consideration in such evaluations. Is the city truly cognizant of what it would actually cost to construct this short path in a way that answers the multitude of concerns that have been brought to your attention by concerned neighbors? Is an estimate of "in the \$1 million to \$10 million range" something that you're prepared to act upon? Really? Will the costs be buried in so many different places that the total will never be available to the public? Will the current design be dumbed down in an effort to "save costs" making the path become an attractive nuisance that is also quite dangerous? A large part of the budget appears to be going towards bizarre, to put it mildly, bridging with removable trusses to solve the problem of the maintenance access ramp. These trusses would be removed by crane then reassembled. What? Has reality taken a leave of absence in our city? Reading about the alternatives discontinued from further evaluation on pages 42-3 might prove my point.

I must also mention that our neighborhood has been defamed on social media, traditional media and at the podium in City Hall as being only concerned with our safety and privacy. And though many of my neighbors no doubt harbor such concerns, we have also been typecast as wanting the path behind our back fence for our own personal playground. We bought our homes in spite of the path, not because of it. We've been accused of being selfish NIMBY's with "deep pockets" because we were able to scrape together \$500 to fund signs in our yards. Everyone with a 'no path' lawn sign up feels deeply about their opposition to the path. We all have kept them up so long so that we will finally be recognized and hopefully finally listened to. We know this path very well. It is not an asset that it is being purported to be. Our newest neighbors are just as opposed as those of us who have lived here for decades and recall vividly the vandalism of past years when the area behind our homes was left as an unlocked thoroughfare. The path is touted as raising the value of our homes. Really? Not when you ask a credible realtor.

How many of you have actually walked this path its full length vs. having just looked at artist renderings? Come walk with us. We will show you what you are voting on.

Currently in our community and nation there is a lack of civility that can lead to a total loss of community. Please do not contribute to this degradation of Cupertino. It's a slippery slope that leads a community into a downward spiral. Steve Piasecki, a former director of Community Development in Cupertino, said at a long ago City Council meeting that you can't have community if people don't feel safe. I agree with that. Well, another important point is that you can't have community if residents feel they have absolutely no say in what happens to their neighborhood. If the City Council elects to override the fervent wishes of a neighborhood so dramatically as in the case of Regnart Creek Path, you send a loud and clear message that their input and activism do not matter in Cupertino. That is not the kind of impact anyone should want to leave on the city they serve.

Sincerely,

Linda Wyckoff

## Melissa Stone

---

**From:** Melissa Stone on behalf of Board of Directors  
**Sent:** Wednesday, September 12, 2018 4:35 PM  
**To:** 'Linda Wyckoff'  
**Cc:** Board of Directors; 'dpaul@cupertino.org'; 'rsinks@cupertino.org'; 'svaidhyanathan@cupertino.org'; 'bchang@cupertino.org'; 'sscharf@cupertino.org'; 'Timmb@cupertino.org'  
**Subject:** RE: Liability issues regarding Regnart Creek Path  
**Attachments:** Regnart Creek letter - August 21, 2018.pdf

### **Sent on behalf of Director Hsueh**

Dear Ms. Wyckoff,

Thank you for your e-mail dated August 29, 2018, regarding your concerns with the City of Cupertino's (City) proposed trail along Regnart Creek. I am aware that on August 21, 2018, the City Council approved proceeding with a proposal to use portions of Regnart Creek from Pacifica Drive to E. Estates Drive as a public trail and connect it to the existing trail into Creekside Park. Santa Clara Valley Water District (District) staff have been in discussions with the City regarding impacts to flood protection and/or operations and maintenance of our facilities. District staff also reviewed the draft Regnart Creek Trail Feasibility Study, and provided our comments and concerns to the City, which are included in the attached letter dated August 21, 2018.

Since 1974, the District's Board of Directors (Board) has had a policy to allow joint public use of District facilities when an agency, such as the City, requests to use District property for public recreational uses, so long as the use does not adversely impact District operations and the agency takes responsibility for the public's use of the property. We understand that the City has held several public meetings in this neighborhood to gather comments for incorporation into their feasibility study. Prior to approving any final trail alignments, the City will also need to undertake a California Environmental Quality Act study, which includes another public comment process.

As you may be aware, land use decisions, including planning for recreational facilities, lie with the cities and County -- the District's review is limited to how recreational improvements will impact our flood protection, stream stewardship or water supply operations. However, any use of District property for extending the existing Regnart Creek trail on District property will require the City to enter into a joint use agreement with the District. The Board must approve new joint use agreements with the agency prior to allowing construction of a trail on District property, which provides the public additional avenues to voice their comments and concerns. Our Board is sensitive to the community as our neighbors, so I can assure you that your concerns will be considered, along with the City's efforts to ameliorate those concerns, and the benefits the project will provide to the community at large, prior to any Board decision.

Below is a link to the City's website with information on the project, documentation from public meetings, and updates on the status of their project, so that you may stay informed on the project's progress and see other comments made by the community regarding the project:

<https://www.cupertino.org/our-city/departments/public-works/transportation-mobility/bicycle-and-pedestrian-travel/bicycle-transportation-plan-implementation/regnart-creek-trail>

Please feel free to contact Ms. Usha Chatwani, Community Projects Review Manager, at (408) 630-2731, if you have any additional concerns or questions about the District's review process for these types of projects.

Sincerely,



Nai Hsueh  
Director, District 5

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**Melissa Stone**

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**From:** Melissa Stone on behalf of Board Correspondence  
**Sent:** Thursday, August 30, 2018 2:55 PM  
**To:** Board of Directors  
**Subject:** FW: Concerns about Cupertino's Regnart Creek biking trail plan

Begin forwarded message.

**From:** Kevin Lu <[kevinjlul@gmail.com](mailto:kevinjlul@gmail.com)>  
**Date:** August 29, 2018 at 1:04:51 PM PDT  
**To:** <[NHsueh@valleywater.org](mailto:NHsueh@valleywater.org)>  
**Subject:** Concerns about Cupertino's Regnart Creek biking trail plan

Dear Ms. Nai Hsueh,

I was told you represent the Santa Clara Water District covering Cupertino. I am writing to express my grave concerns and shock regarding Cupertino city council's plan on Regnart Creek biking trail despite strong opposition from the families along the creek.

The Santa Clara county guideline on biking trail is very clear, 12 feet with 2 feet on each side for buffer and safety. <https://www.sccgov.org/sites/parks/PlansProjects/Documents/TrailsMasterPlan/Interjurisdictional-Trails-Guidelines-text-and-graphics.pdf>. The proposed trail will go thru the FRONT of several houses along the creek, and Santa Clara Water District has only 10 feet deeded based on the title reports of the owners. To have a biking trail within 10 feet with one side already having thick concrete wall to prevent flooding and the other side to build another fence or wall is going to inevitably invite serious accidents and endanger emergency or maintenance vehicles for the water district. It also severely deprives the homeowners' rights of privacy, safety and views of the creek that they bought into when they selected their residences along the creek. Not to mention the negative impact on the natural habitat along the creek.

Please consider the residents' concerns, opposition and rights when you discuss the matter with the water district board.

I copy below my letter to the Cupertino city council for your reference.

Sincerely,

Kevin

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Dear Cupertino city council members,

I am a Cupertino resident of more than 12 years and am writing to urge you to vote against the proposed Regnart Creek Trail and use the money for other causes.

The proposed trail will

- waste tons of money as the city already has many dedicated bike lanes around the city for bikers. As a Cupertino resident, we have been paying special parcel tax for many years, and we are constantly asked for donation to support the schools and teachers. I remember one year we had to raise money to keep teachers' job in Cupertino. PLEASE SAVE MONEY FOR OTHER CAUSES!
- negatively affect the houses and residents along the creek, especially those with fronts facing the creek. The houses will lose some of the value that the owners originally bought into: privacy and security!
- permanently damage the habitat for animals along the creek

Referred  
C-18-0163



- increase safety concerns as more crossings are proposed along busy streets such as Blaney and more dangerous mix of pedestrians and bikers on a narrow path.
- lead to lack of emergency vehicle access to the proposed path
- Trespassing on the borderlines of the private land belonging to the owners of along the creek based on Santa Clara County's guidelines on biking trails:<https://www.sccgov.org/sites/parks/PlansProjects/Documents/TrailsMasterPlan/Interjurisdictional-Trails-Guidelines-text-and-graphics.pdf>

The proposed trail also violates the city's own regulations regarding protecting residential neighborhoods from ***noise, traffic, light and visually intrusive effects from more intense developments***. See link: <https://www.cupertino.org/home/showdocument?id=1510>

As publicly elected officials, please exercise fiscal disciplines, use tax payers' money where it is most needed and help to reduce the high tax burden that we, the residents and tax payers, are facing today.

Say NO to the Trail. Use existing bike lanes!

Thank you,

Kevin

## Melissa Stone

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**From:** Melissa Stone on behalf of Board of Directors  
**Sent:** Thursday, September 13, 2018 10:14 AM  
**To:** 'kevinju1@gmail.com'  
**Cc:** Board of Directors; 'dpaul@cupertino.org'; 'rsinks@cupertino.org'; 'svaidhyanathan@cupertino.org'; 'bchang@cupertino.org'; 'sscharf@cupertino.org'; 'Timmb@cupertino.org'  
**Subject:** RE: Concerns about Cupertino's Regnart Creek biking trail plan  
**Attachments:** Regnart Creek letter - August 21, 2018.pdf

### Sent on behalf of Director Hsueh

Dear Mr. Lu,

Thank you for your e-mail dated August 29, 2018, regarding your concerns with the City of Cupertino's (City) proposed trail along Regnart Creek. I am aware that on August 21, 2018, the City Council approved proceeding with a proposal to use portions of Regnart Creek from Pacifica Drive to E. Estates Drive as a public trail and connect it to the existing trail into Creekside Park. Santa Clara Valley Water District (District) staff have been in discussions with the City regarding impacts to flood protection and/or operations and maintenance of our facilities. District staff also reviewed the draft Regnart Creek Trail Feasibility Study, and provided our comments and concerns to the City, which are included in the attached letter dated August 21, 2018.

Since 1974, the District's Board of Directors (Board) has had a policy to allow joint public use of District facilities when an agency, such as the City, requests to use District property for public recreational uses, so long as the use does not adversely impact District operations and the agency takes responsibility for the public's use of the property. We understand that the City has held several public meetings in this neighborhood to gather comments for incorporation into their feasibility study. Prior to approving any final trail alignments, the City will also need to undertake a California Environmental Quality Act study, which includes another public comment process.

As you may be aware, land use decisions, including planning for recreational facilities, lie with the cities and County – the District's review is limited to how recreational improvements will impact our flood protection, stream stewardship or water supply operations. However, any use of District property for extending the existing Regnart Creek trail on District property will require the City to enter into a joint use agreement with the District. The Board must approve new joint use agreements with the agency prior to allowing construction of a trail on District property, which provides the public additional avenues to voice their comments and concerns. Our Board is sensitive to the community as our neighbors, so I can assure you that your concerns will be considered, along with the City's efforts to ameliorate those concerns, and the benefits the project will provide to the community at large, prior to any Board decision.

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Please feel free to contact Ms. Usha Chatwani, Community Projects Review Manager, at (408) 630-2731, if you have any additional concerns or questions about the District's review process for these types of projects.

Sincerely,



Nai Hsueh  
Director, District 5

C-18-0163

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## Melissa Stone

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**From:** Melissa Stone on behalf of Board Correspondence  
**Sent:** Thursday, August 30, 2018 2:56 PM  
**To:** Board of Directors  
**Subject:** FW: creek open to the public

Begin forwarded message:

**From:** Gloria Ezerski <[gloryez@att.net](mailto:gloryez@att.net)>  
**Date:** August 30, 2018 at 9:02:03 AM PDT  
**To:** "[nhsueh@valleywater.org](mailto:nhsueh@valleywater.org)" <[nhsueh@valleywater.org](mailto:nhsueh@valleywater.org)>  
**Subject:** creek open to the public  
**Reply-To:** Gloria Ezerski <[gloryez@att.net](mailto:gloryez@att.net)>

Dear Commissioner for District 5,

I would like to forward on to you what I sent to the Cupertino Counsel so the creek side would not be opened to the public. As you will read, I had my problems when it was open to the public. I felt it necessary for you to read what I did write to the Cupertino Counsel.

I am a resident of Cupertino for the last 55 years. I have witnessed, been involved with wrong doings concerning the creek when it was opened to the public. Unknown evils are always lurking when a location is not being supervised.

An open creek side means the safety of the residents will be ignored. Will you "the city" be responsible for those who may get hurt, do damage to our fences, homes, and yes, garbage that will eventually accumulate. You "the city" is creating costly problems. But yet, how many of you live in Cupertino?

The city already has problems which are being ignored. Raised sidewalks, trees that need pruning, and tell me what happened to "street cleaning" as I have been sweeping leaves along the curb side.

Safety, protecting residents from vandalism, is the #1 key concern and if not, it should be. We the residents are the ones who would be the victims and not the city.

Will you "the city" if you decide creek should be open, have cameras installed, fencing, lights, monitored by security, and making 100% sure that the "homeless" don't take living quarters within the creek side. Homeless brings odors, mess, where they take camping privileges.

NO NO TO THE TRAIL BEING OPENED TO THE PUBLIC. Opening it will bring regrets, costs, and possibly law suits. Thank you for reading my e-mail against the opening of the creek side to the public.

Gloria Ezerski

**Melissa Stone**

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**From:** Gloria Ezerski <gloryez@att.net>  
**Sent:** Tuesday, September 04, 2018 7:14 AM  
**To:** Board of Directors  
**Subject:** Oppose Regnart Creek Path

I have written to your Commissioner Nai Hsueh, City Counsel members of Cupertino, to please not open the creek side to the Public.

I have lived in my home 55 years, and yes, have encountered many issues of wrong doings to the residents. Broken fences, broken windows, taking short cuts thru someone's backyard, invading our privacy.

Questions have been asked and not answered such as: will the creek be monitored for vandalism, homeless taking camp privileges, will it be lighted if in fact open 24 hrs a day, and most importantly who will take responsibility for damages that may take place. Will the City be held responsible for these damages that may occur? We all know children will be children when throwing rocks, leaving food wrappings, it is part of growing up. But yet, the residents are the ones on the losing end.

I ask that the creek side NOT BE OPENED TO THE PUBLIC. I THANK YOU FOR READING WHAT I JUST WROTE AND HOPING YOUR DECISION WILL BE TO KEEP IT CLOSED.

Please remember many of you will not be affected with creek side vandalism and other problems that may occur. When a location within a city is not monitored for various reasons, trouble comes to be.

Most respectfully, Gloria Ezerski .....Please also remember, the residents will be the victims of wrong doings, not you 'THE CITY'.

Referred  
C-18-0166



## Melissa Stone

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**From:** Melissa Stone on behalf of Board of Directors  
**Sent:** Thursday, September 13, 2018 10:20 AM  
**To:** 'Gloria Ezerski'  
**Cc:** Board of Directors; 'dpaul@cupertino.org'; 'rsinks@cupertino.org'; 'svaidhyanathan@cupertino.org'; 'bchang@cupertino.org'; 'sscharf@cupertino.org'; 'Timmb@cupertino.org'  
**Subject:** RE: Oppose Regnart Creek Path  
**Attachments:** Regnart Creek letter - August 21, 2018.pdf

### Sent on behalf of Director Hsueh

Dear Ms. Ezerski,

Thank you for your e-mails dated August 30 and September 4, 2018, regarding your concerns with the City of Cupertino's (City) proposed trail along Regnart Creek. I am aware that on August 21, 2018, the City Council approved proceeding with a proposal to use portions of Regnart Creek from Pacifica Drive to E. Estates Drive as a public trail and connect it to the existing trail into Creekside Park. Santa Clara Valley Water District (District) staff have been in discussions with the City regarding impacts to flood protection and/or operations and maintenance of our facilities. District staff also reviewed the draft Regnart Creek Trail Feasibility Study, and provided our comments and concerns to the City, which are included in the attached letter dated August 21, 2018.

Since 1974, the District's Board of Directors (Board) has had a policy to allow joint public use of District facilities when an agency, such as the City, requests to use District property for public recreational uses, so long as the use does not adversely impact District operations and the agency takes responsibility for the public's use of the property. We understand that the City has held several public meetings in this neighborhood to gather comments for incorporation into their feasibility study. Prior to approving any final trail alignments, the City will also need to undertake a California Environmental Quality Act study, which includes another public comment process.

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<https://www.cupertino.org/our-city/departments/public-works/transportation-mobility/bicycle-and-pedestrian-travel/bicycle-transportation-plan-implementation/regnart-creek-trail>

Please feel free to contact Ms. Usha Chatwani, Community Projects Review Manager, at (408) 630-2731, if you have any additional concerns or questions about the District's review process for these types of projects.

Sincerely,



Nai Hsueh  
Director, District 5

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## Melissa Stone

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**From:** Melissa Stone on behalf of Board Correspondence  
**Sent:** Tuesday, September 04, 2018 8:20 AM  
**To:** Board of Directors  
**Subject:** FW: Completed project along Queenswood Way and Camden Ave

Begin forwarded message:

**From:** the pagans <[thepagans@sbcglobal.net](mailto:thepagans@sbcglobal.net)>  
**Date:** September 1, 2018 at 1:05:34 PM MDT  
**To:** "gkremen@valleywater.org" <[gkremen@valleywater.org](mailto:gkremen@valleywater.org)>  
**Subject:** Completed project along Queenswood Way and Camden Ave  
**Reply-To:** the pagans <[thepagans@sbcglobal.net](mailto:thepagans@sbcglobal.net)>

Hi Mr Kremen,

A very major pipeline maintenance project was completed earlier this year along Queenswood Way, between Camden Ave and Portswood Dr. The contractor appeared to have completed all work and demobilized their work yard on Almaden Expwy and Harry Rd.

However, there are a number of incomplete items have remained unfinished onsite along the creek and the mobilization yard, which include the following:

- Straw waddles have been piled up along the creek for several months, and appear to be surplus;
- Gravel was imported to the creek area for an access road, and some piles remain ungraded;
- Portions of the pedestrian trail were driven on by the contractor, and as a result, several areas are damaged and need repair. Much of the damage is on the side edge of the trail;
- Two holes deep ruts were made on the trail at the end of Hampswood Way, and were only recently patched with cold patch.
- Contractor vehicles drove across the trail just north of the expressway, and kicked up enough gravel and dirt to cover the trail;
- Access to the mobilization yard on Almaden Expwy was made through an opening in a treated lumber fence, and has not yet been restored to original condition.

And lastly, there is a SCVWD vehicle access point across a City sidewalk along Camden Ave, between Queenswood and Los Alamitos Creek, been heavily damaged by SCVWD maintenance or contractor vehicles. Does the District have plans to repair this damaged sidewalk, with perhaps a curb cut for better access?

Thank you in advance.

Steven Pagan  
[thepagans@sbcglobal.net](mailto:thepagans@sbcglobal.net)

Referred  
C-18-0167



**Melissa Stone**

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**From:** Melissa Stone on behalf of Board of Directors  
**Sent:** Thursday, September 13, 2018 10:42 AM  
**To:** 'thepagans@sbcglobal.net'  
**Cc:** Board of Directors  
**Subject:** RE: Completed project along Queenswood Way and Camden Ave

**Sent on behalf of Director Kremen**

Dear Mr. Pagan,

Thank you for your email dated September 1, 2018, notifying me of your concerns along Los Alamitos Creek Trail related to the Santa Clara Valley Water District's (District) Almaden Valley Pipeline Project. As you know, we had a major pipeline rehabilitation project and a large emergency repair effort on one of our pipelines that runs adjacent to Alamitos Creek between Camden Avenue and Almaden Expressway. This was critical work that needed to be done to ensure a safe reliable water supply for the community, and we recognize and appreciate the patience and understanding of the residents in the Queenswood neighborhood and local area.

We are still in the process of wrapping up the project as the contractor completes the required work. In the past week, our staff and contractors visited the Queenswood area and observed the issues that you noted in your message. Some of the items have already been addressed such as the removal of the surplus straw waddles. The gravel pile that you noted will be spread and compacted once the perimeter fence around the building near Queenswood Way and Figwood Court is completed, planned for the next couple weeks.

A District staff person will be out within a week to sweep a portion of the trail located just north of the expressway that is covered with dirt. Please note that this is a natural low point which collects mud and local runoff. In addition, our vegetation specialist is overseeing the area alongside Alamitos Creek that was rutted and caused damage to the vegetation. The goal is to allow native vegetation to naturally reestablish in that area.

The asphalt cold patch on the trail was not placed by the District or our contractors; however, during a recent visit to the site, District staff did notice that the City of San Jose has set out safety barricades along the trail. We have contacted the City to request they inspect and perform repairs as needed on this section of the paved asphalt trail. The District partners with the City of San Jose and other cities in the County to establish paved trails for pedestrians and cyclists.

Thank you for bringing to our attention the cracked sidewalk near the intersection of Queenswood Way and Camden Avenue. This area has been damaged for several years and our staff will contact the City of San Jose to inform them of the damage. Staff had also previously contacted the County about the treated lumber fence that was damaged prior to the District's use of the area. Staff will remind the County again that the fence is in need of repair.

We appreciate you taking the time to share your concerns. as the District takes all community concerns seriously. As the County's water wholesaler, the District is dedicated to providing safe clean water to the residents of Santa Clara County. If you have additional questions or concerns, please feel free to contact Kurt Arends, Deputy Operating Officer of Raw Water Operations & Maintenance, at [karends@valleywater.org](mailto:karends@valleywater.org).

Sincerely,

A handwritten signature in blue ink, appearing to read "Gary Kremen", with the word "SCVWD" written in a smaller font below it.

Gary Kremen  
Director, District 7

C-18-0167

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Rec'd in COB on  
8/31/18

Campo De Lozano Homeowners Association  
10358 Lozano Lane  
Cupertino, CA 95014-6607

August 11, 2018

Santa Clara Valley Water District  
5750 Almaden Expressway  
San Jose, CA 95118

Via Post

Attn: Ms. Nai Hsueh, Board Member, District 5  
Mr. Rick Callender, Chief of External Affairs  
Ms. Debra Dake-Morrell, Revised Encroachment Remediation  
Program

Re: Regnart Creek – Cupertino, CA

Ladies and Gentleman:

I am President of Campo De Lozano Homeowners Association and a 20 year resident of Cupertino. Some of the homes in our association are approximately 10 feet from the edge of Regnart Creek. As you may know, the City of Cupertino is planning a comprehensive bike trail covering the city, with one section, a trail adjacent to Regnart Creek coming up for approval on August 21, 2018. The City engaged a consultant last November to assist with the determining the feasibility of a pedestrian-bike trail next to Regnart Creek. A number of community meetings have been held, but one key participant, the Santa Clara Valley Water District, has been noticeably absent. We have been told that the Water District has given its blessing for the City to do whatever they want with developing the proposed Trail. Is this true?

We find it odd that one property owner would allow another party to make major decisions on its behalf, perhaps this is covered in a Joint Use Agreement between the City and the Water District. Over 90% of the homes residing next to Regnart Creek are opposed to the Bike trail due to safety and privacy concerns and it being an unnecessary expense when alternate, safe bike paths exist. It seems to us that a trail built where the service road is would also make it more difficult for the Water District to

maintain the Creek. The proposed Trail raises liability issues as well and negatively impacts the habitat and eco-system that exists now, something contrary to Water District policies and marketing.

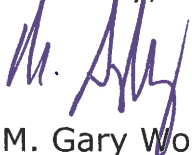
As your neighbor and customers, we would appreciate learning of the Water District's position, whether it is in a cost-sharing arrangement with the City, and whether or not the proposed Trail meets with your approval. It certainly does not meet ours.

To highlight our concerns, we have prepared the attached slide deck and also include an illustration of state bike trail design guidelines, which does not conform to what is being proposed. The Water District's owns 10 feet of land, used as a service road, next to the Creek. 10 feet seems insufficient to construct a bicycle-pedestrian trail, once walls and shoulders are considered.

Any information you can share with us is much appreciated. If you are available for a meeting, we would like to discuss this in person.

Thank you for listening to our concerns. Please excuse our addressing this to multiple parties, we were unsure who the appropriate contact should be.

Sincerely,



M. Gary Wong  
President  
Campo De Lozano HOA  
(650) 619-1728  
[garywong@ix.netcom.com](mailto:garywong@ix.netcom.com)

Encls: Slide deck re: Regnart Creek Trail  
Bike trail design guideline illustration

# Regnart Creek Trail



Opposition Statement by  
Cupertino Residents Residing  
Next to Regnart Creek

Regnart Creek Bike Trail  
City Council Meeting  
August 21, 2018





# Cupertino Bicycle Paths Program

We respect and applaud the work and efforts of the Council, City staff and the Bicycle Pedestrian Commission to:

- Make Cupertino a more walkable and bicycle friendly community
- Reduce automobile traffic and congestion
- Improve connectivity among the various neighborhoods

We acknowledge the significant resources devoted to planning in the preparation of the 2016 Bicycle Transportation Plan

However, over 95% of residents who live next to Regnart Creek, oppose the trail for use as a public bicycle and pedestrian path. Other options exist, that are not under consideration that are less costly and non-disruptive.



## Executive Summary

- The public outreach pertaining to the Regnart Creek trail is biased and incomplete. The process is disrespectful to Cupertino residents.
- A budget of \$1-10 million was quoted, indicating the plan is not soundly conceived.
- Alternative paths were not included as part of the Trail study mandate, which would lead to wasteful spending of tax payer funds if approved.
- Safety, habitat & privacy issues have been glossed over, ignoring existing safe routes with adjacent pedestrian sidewalks.
- Avid cyclists have stated they would not use the proposed trail
- Opposition to the Regnart Creek trail is widespread and residents are prepared to take legal action to preserve their rights

## Significant & Permanent Impact on Properties



From this



To this

- Loss of privacy
- Loss of view
- Increased noise from talking, music, skate boards and scooters
- Light pollution from lights
- Trespassing on property
- Increased litter
- Increased pet waste
- Harmful impact to creek habitat



## Proposed Trail Impacts Homes on De Palma Lane



- The trail would alter ingress and egress, making it more difficult for the homeowners
- A fence would be out of place and be visually ugly
- The Trail and proposed fencing would limit access of emergency vehicles, putting lives at risk

## Trail Fencing Options are Not Acceptable



- The proposed wall/fence destroys the feel of the neighborhood
- Proposed wall/fences would be unsightly, like a prison
- A 6' fence/wall would create shadows, impacting, if not killing the landscaping
- A fence would make the middle area hard to maintain
- A fence would reduce and change ingress and egress for the residents, a maze
- A fence would force trimming and changing the shape of the beautiful trees



# Safety and Habitat Ecology Disruption



Are children safe walking on a path where there are coyotes?

Are children safe where vultures with 7 ft wingspans search for food and prey?



- Coyotes, ducks, frogs, birds, squirrels and other creatures rely on the creek for water. Increased human traffic and fencing would materially alter their habitat
- **Children walking on the trail may be vulnerable to coyotes and vultures or frightened by other native animals.**
- **A fence would create an alley, where escape from a coyote or other wild animal would be extremely difficult. There would be no escape**
- **A child could fall 14 feet into the dry creek and aid would not be immediately available.**

## Water Levels Reach Dangerous Levels

- During heavy rains, water levels in the Creek rise to dangerous levels, bordering on over flowing.
- Are children safe walking along swift running water?
- Are children safe walking along a creek where there is no fencing, and a 14 foot drop?



# Trail invites Trespassing and Improper Bicycle Use



- ↔ ■ Cyclists already trespass on Lozano Lane property



Pedestrian easement disallows bike usage, but cyclists use it anyway. There is no enforcement of pedestrian use only.



## Crime and Vandalism are already present



- Vandalism on the pedestrian path occurs
- Last fall, a stranger tried to approach the daughter of one of the homeowners
- Cars were broken into in 2017 on premise
- Strangers walk thru the property
- Residents are very concerned about security

## Santa Clara Water District Trail Limited to 10 Feet



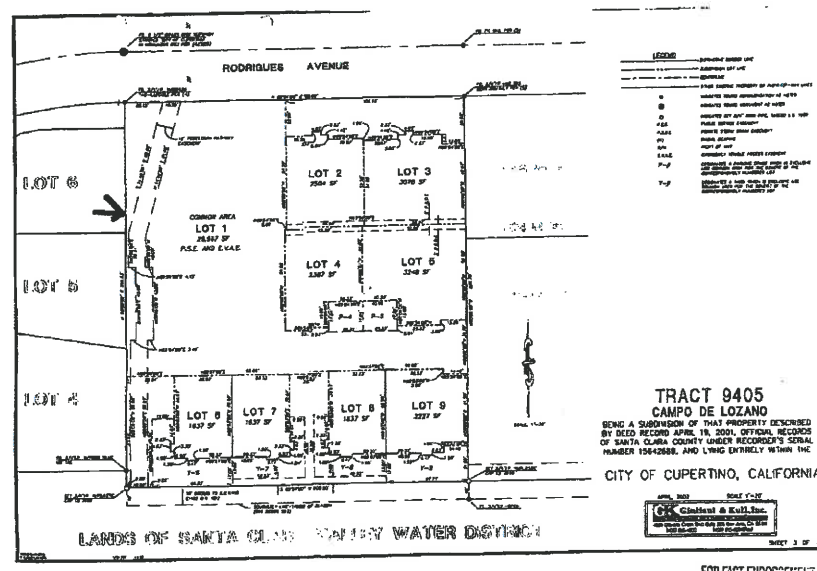
Photo of 10 feet dimension



10 foot trail dimensions crowd utility pole

# Survey Showing Water District Property- 10 Feet

Santa Clara Water District property is limited to 10 feet. We were informed that 1 foot shoulders are needed on both sides of the trail, or 12 feet. This would encroach on our properties. If kept to 10 feet, 8 feet is too narrow for cyclists and pedestrians to share. One of the reasons Cupertino created bike paths is because cyclists and pedestrians can't share a sidewalk, they are too narrow.





# Aerial View of Homes on Lozano & De Palma Lane



Unlike the gentlemen who purchased a home near the railroad, he knew what he was buying.

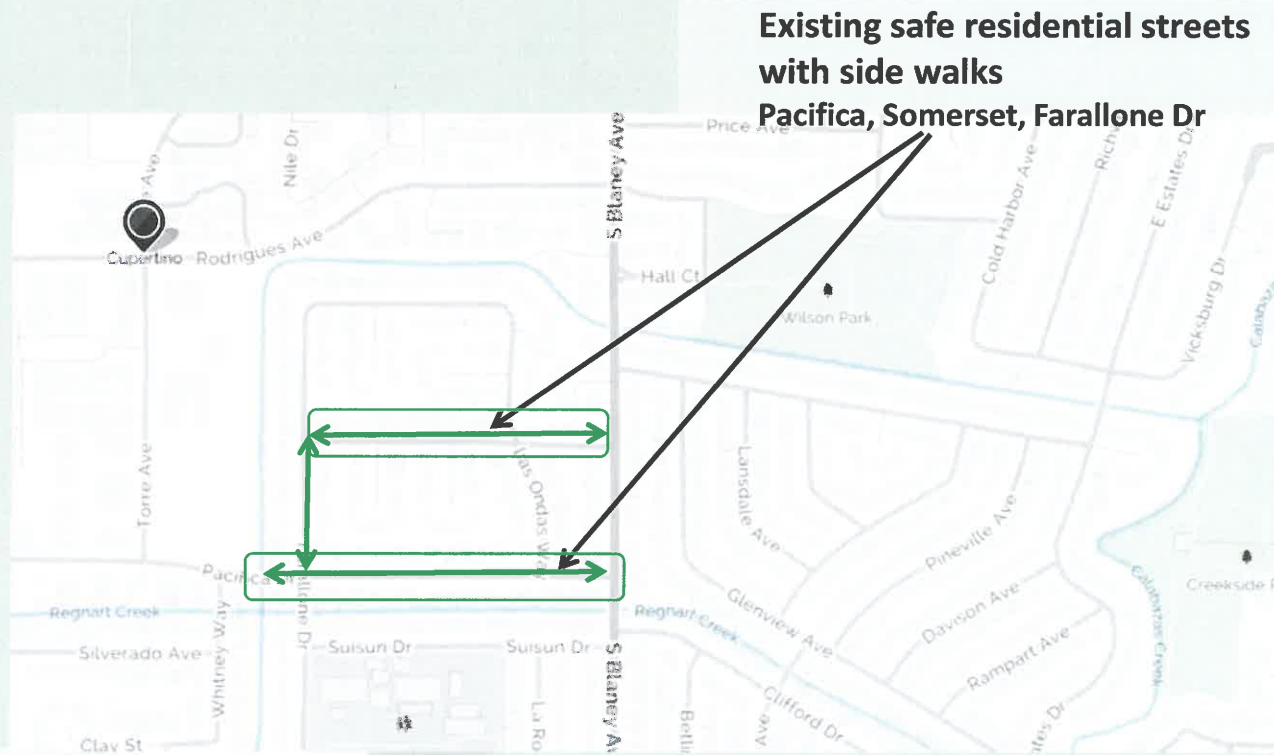
Our situation is not comparable, we did not buy these homes for a 7 foot wall to be **erected in front of them.**

We did not buy these homes to have our privacy and security compromised.

## Safe



# Existing Safe Routes to Schools







## 95% of Regnart Creek Residents Oppose the Trail

- 100% of the homeowners of Campo De Lozano Homeowners Association oppose the Regnart Creek Trail
- 100% of the households, residing on DePalma Lane, oppose the Regnart Creek Trail
- 95% of households along La Mar, Vicksburg, Farallone and Las Ondas oppose the Regnart Creek Trail
- A petition has confirmed their opposition to the this Trail. **Note the numerous signs posted throughout the community. Stop the madness, don't create a problem where none exist.**
- The residents are very angry about encroachment on their rights.

# Residential and Voter Opposition is Widespread



17

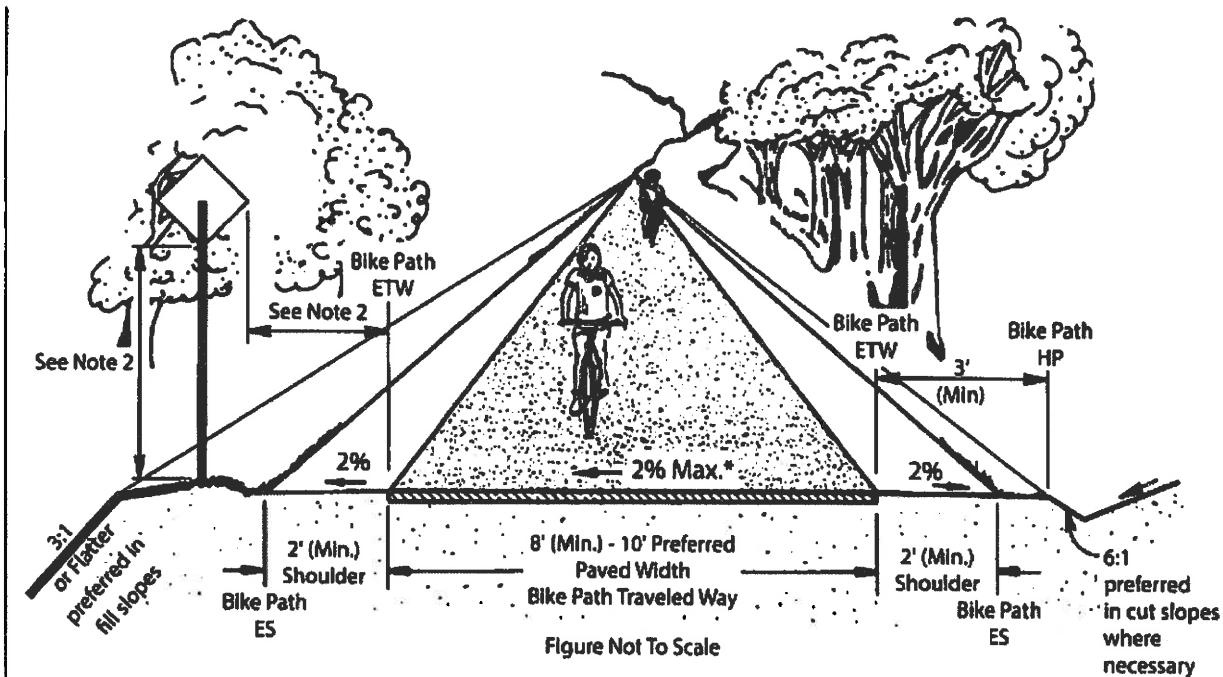


# Council Responsibility to Do No Harm



18

**Figure 1003.1A**  
**Two-Way Class I Bikeway (Bike Path)**



**NOTES:**

- (1) See Index 1003.1(15) for pavement structure guidance of bike path.
- (2) For sign clearances, see California MUTCD, Figure 9B-1. Also, for clearance over the shoulder see Index 1003.1(3).
- (3) The AASHTO Guide for the Development of Bicycle Facilities provides detailed guidance for creating a forgiving Class I bikeway environment.

\* 1% cross-slope minimum.



## Melissa Stone

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**From:** Melissa Stone on behalf of Board of Directors  
**Sent:** Thursday, September 13, 2018 10:37 AM  
**To:** 'garywong@ix.netcom.com'  
**Cc:** Board of Directors; 'dpaul@cupertino.org'; 'rsinks@cupertino.org'; 'svaidhyanathan@cupertino.org'; 'bchang@cupertino.org'; 'sscharf@cupertino.org'; 'Timmb@cupertino.org'  
**Subject:** RE: Regnart Path, Water District 5  
**Attachments:** Wong C-18-0168.pdf; Regnart Creek letter - August 21, 2018.pdf

### Sent on behalf of Director Hsueh

Dear Mr. Wong,

Thank you for your letter dated August 11, 2018 (attached), regarding your concerns with the City of Cupertino's (City) proposed trail along Regnart Creek. I am aware that on August 21, 2018, the City Council approved proceeding with a proposal to use portions of Regnart Creek from Pacifica Drive to E. Estates Drive as a public trail and connect it to the existing trail into Creekside Park. Santa Clara Valley Water District (District) staff have been in discussions with the City regarding impacts to flood protection and/or operations and maintenance of our facilities. District staff also reviewed the draft Regnart Creek Trail Feasibility Study, and provided our comments and concerns to the City, which are included in the attached letter dated August 21, 2018.

Since 1974, the District's Board of Directors (Board) has had a policy to allow joint public use of District facilities when an agency, such as the City, requests to use District property for public recreational uses, so long as the use does not adversely impact District operations and the agency takes responsibility for the public's use of the property. We understand that the City has held several public meetings in this neighborhood to gather comments for incorporation into their feasibility study. Prior to approving any final trail alignments, the City will also need to undertake a California Environmental Quality Act study, which includes another public comment process.

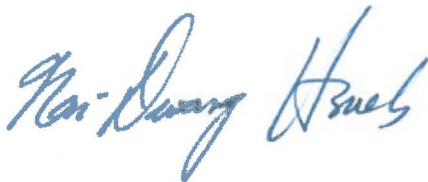
As you may be aware, land use decisions, including planning for recreational facilities, lie with the cities and County – the District's review is limited to how recreational improvements will impact our flood protection, stream stewardship or water supply operations. However, any use of District property for extending the existing Regnart Creek trail on District property will require the City to enter into a joint use agreement with the District. The Board must approve new joint use agreements with the agency prior to allowing construction of a trail on District property, which provides the public additional avenues to voice their comments and concerns. Our Board is sensitive to the community as our neighbors, so I can assure you that your concerns will be considered, along with the City's efforts to ameliorate those concerns, and the benefits the project will provide to the community at large, prior to any Board decision.

Below is a link to the City's website with information on the project, documentation from public meetings, and updates on the status of their project, so that you may stay informed on the project's progress and see other comments made by the community regarding the project:

<https://www.cupertino.org/our-city/departments/public-works/transportation-mobility/bicycle-and-pedestrian-travel/bicycle-transportation-plan-implementation/regnart-creek-trail>

Please feel free to contact Ms. Usha Chatwani, Community Projects Review Manager, at (408) 630-2731, if you have any additional concerns or questions about the District's review process for these types of projects.

Sincerely,



Nai Hsueh  
Director, District 5

C-18-0168

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**Melissa Stone**

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**From:** Kathy R Chole <kathychole@comcast.net>  
**Sent:** Thursday, September 06, 2018 12:24 PM  
**To:** Board of Directors  
**Subject:** Regnart Creek Trail - Opposing Approval  
**Attachments:** Regnart Creet Trail - Opposing Approval.eml

Dear SCVWD Board of Directors:

I am writing to you for your support to oppose the opening of Regnart Creek (District 5) as a public pedestrian/bike trail. Opening a trail through residential neighborhoods that are documented as safe for walking and biking is irresponsible for the safety of potential users. The proposed (and now approved feasibility study) trail heads at So. Blaney and E. Estates will cause increased congestion and safety to walkers and bikers. So. Blaney has a vehicle rate of 6,400/day, which will now be forced to navigate this trail connector crossing that has a zig-zag construction to connect to the next portion of the trail with a safety median in the middle of the road for walkers and bikers to take refuge.

In addition, the proposed 4' split rail fencing separating the trail from the creek is a horrendous idea, again for safety. The water district should be concerned about this even though the liability will be on the City of Cupertino in the event of injury.

I have enclosed my email correspondence which highlights additional concerns that was sent to the Cupertino City Council on 8/13/2018 (excuse the typo in the subject line of Creet vs Creek), of which I received "zero" response except from council member Steven Scharf who had to recuse himself from the vote as he lives within 500 ft. of the trail.

The 4-0 approval vote by the City Council on 21-August-2018 was decided long before hearing concerns of those opposing and favoring the Bike/Pedestrian Commission report and walk/bike coalitions. The community outreach of working with those residents to come up with a reasonable solution fell on deaf ears. It was a sad evening of sitting through the city council meeting of almost 5 hours for this agenda item to have the safety of our community discounted to build a .8 miles trail at the current estimated cost of \$2.4M.

Please listen to the community, of which there are >400 residents (and counting) that signed petitions opposing the opening of the creek for public use.

Thank you in advance.

Regards,

Kathy Chole  
email: [kathychole@comcast.net](mailto:kathychole@comcast.net)

Referred  
C-18-0170



## Melissa Stone

---

**From:** Melissa Stone on behalf of Board of Directors  
**Sent:** Thursday, September 13, 2018 10:24 AM  
**To:** 'Kathy R Chole'  
**Cc:** Board of Directors; 'dpaul@cupertino.org'; 'rsinks@cupertino.org'; 'svaidhyanathan@cupertino.org'; 'bchang@cupertino.org'; 'sscharf@cupertino.org'; 'Timmb@cupertino.org'  
**Subject:** RE: Regnart Creek Trail - Opposing Approval  
**Attachments:** Regnart Creek letter - August 21, 2018.pdf

### Sent on behalf of Director Hsueh

Dear Ms. Chole,

Thank you for your e-mail dated September 6, 2018, regarding your concerns with the City of Cupertino's (City) proposed trail along Regnart Creek. I am aware that on August 21, 2018, the City Council approved proceeding with a proposal to use portions of Regnart Creek from Pacifica Drive to E. Estates Drive as a public trail and connect it to the existing trail into Creekside Park. Santa Clara Valley Water District (District) staff have been in discussions with the City regarding impacts to flood protection and/or operations and maintenance of our facilities. District staff also reviewed the draft Regnart Creek Trail Feasibility Study, and provided our comments and concerns to the City, which are included in the attached letter dated August 21, 2018.

Since 1974, the District's Board of Directors (Board) has had a policy to allow joint public use of District facilities when an agency, such as the City, requests to use District property for public recreational uses, so long as the use does not adversely impact District operations and the agency takes responsibility for the public's use of the property. We understand that the City has held several public meetings in this neighborhood to gather comments for incorporation into their feasibility study. Prior to approving any final trail alignments, the City will also need to undertake a California Environmental Quality Act study, which includes another public comment process.

As you may be aware, land use decisions, including planning for recreational facilities, lie with the cities and County – the District's review is limited to how recreational improvements will impact our flood protection, stream stewardship or water supply operations. However, any use of District property for extending the existing Regnart Creek trail on District property will require the City to enter into a joint use agreement with the District. The Board must approve new joint use agreements with the agency prior to allowing construction of a trail on District property, which provides the public additional avenues to voice their comments and concerns. Our Board is sensitive to the community as our neighbors, so I can assure you that your concerns will be considered, along with the City's efforts to ameliorate those concerns, and the benefits the project will provide to the community at large, prior to any Board decision.

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<https://www.cupertino.org/our-city/departments/public-works/transportation-mobility/bicycle-and-pedestrian-travel/bicycle-transportation-plan-implementation/regnart-creek-trail>

Please feel free to contact Ms. Usha Chatwani, Community Projects Review Manager, at (408) 630-2731, if you have any additional concerns or questions about the District's review process for these types of projects.

Sincerely,



Nai Hsueh  
Director, District 5

C-18-0170

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**Melissa Stone**

---

**From:** Kathy R Chole <kathychole@comcast.net>  
**Sent:** Thursday, September 06, 2018 12:24 PM  
**To:** Board of Directors  
**Subject:** Regnart Creek Trail - Opposing Approval  
**Attachments:** Regnart Creet Trail - Opposing Approval.eml

Dear SCVWD Board of Directors:

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In addition, the proposed 4' split rail fencing separating the trail from the creek is a horrendous idea, again for safety. The water district should be concerned about this even though the liability will be on the City of Cupertino in the event of injury.

I have enclosed my email correspondence which highlights additional concerns that was sent to the Cupertino City Council on 8/13/2018 (excuse the typo in the subject line of Creet vs Creek), of which I received "zero" response except from council member Steven Scharf who had to recuse himself from the vote as he lives within 500 ft. of the trail.

The 4-0 approval vote by the City Council on 21-August-2018 was decided long before hearing concerns of those opposing and favoring the Bike/Pedestrian Commission report and walk/bike coalitions. The community outreach of working with those residents to come up with a reasonable solution fell on deaf ears. It was a sad evening of sitting through the city council meeting of almost 5 hours for this agenda item to have the safety of our community discounted to build a .8 miles trail at the current estimated cost of \$2.4M.

Please listen to the community, of which there are >400 residents (and counting) that signed petitions opposing the opening of the creek for public use.

Thank you in advance.

Regards,

Kathy Chole  
email: [kathychole@comcast.net](mailto:kathychole@comcast.net)

Referred  
C-18-0170



## Melissa Stone

---

**From:** Kathy R Chole <kathychole@comcast.net>  
**Sent:** Monday, August 13, 2018 9:54 PM  
**To:** citycouncil@cupertino.org  
**Subject:** Regnart Creet Trail - Opposing Approval

Dear Cupertino City Leaders:

I am a 40 year resident of Cupertino and have seen lots of changes to our fine City, however approving the Regnart Creek Trail is not one of them.

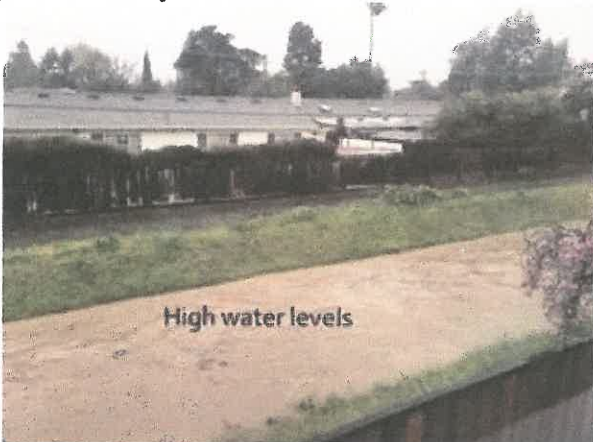
As you are aware, the Regnart Creek Trail Feasibility Study Draft ("Study") is now available and will be reviewed during the City Council meeting on 8/21/2018. Should history repeat itself, only the potential benefits, to the satisfaction of the Bike/Ped Commission, will be provided and not the risks to our community.

City staff will be recommending Alternative # 1 (Page 57 of Study) at an estimated cost of \$2.4M.

There have been many unfounded statements about those of us that are opposing the opening of the creek, siting we are NIMBY's and are opposed to beautification and advancement of trails throughout the city. Nothing could be further from the truth. You may believe we don't have a realistic view of progress, but be assured, we do. While we keep getting slapped with being concerned about our residential safety and security, it's more for the users of this trail.

I would ask that you, as leaders of our community, think long and hard about the safety of young children and bikers using a narrow trail as a safe route. Regnart Creek has been touted as a safe route to schools, however the crossing at S. Blaney will be disastrous. This street has 6,400 vehicles/day (pg. 19 of the Study). With this volume, the risk of accident, injury and near-miss at this trail connector at S. Blaney is imminent. It will take only 1 incident to confirm this is a poor plan.

The Study recommendation is a 4' wooden split removable rail option separating the creek from the trail. Although this may be consistent with many other SCVWD creekside trails (Pg. 59), those do not have a 14' drop off to the creek bed. This will be extremely dangerous especially during the winter months. I've included a picture of the high water levels taken in November of 2017. This makes for a potentially dangerous situation for adventuresome youth. Safety first.



Attachment 3  
Page 46 of 106

Now let's consider the folks on Lozano Lane / De Palma Lane. I don't live there, but they have so much to lose if this trail is approved. When they purchased these properties, they agreed that the asphalt in front of their homes would be accessible to pedestrians. The idea of increasing the activity by adding bikers will certainly disrupt their serenity. Putting up screened fencing in front of these homes that face the creek is an inconsiderate alternative.

Additionally, this Campo De Lozano HOA was not given the opportunity to go over their 12-page slide presentation to visually express their concerns when a two hour session with City staff and trail consultants was held on 5/23/2018. No consideration was given to the opinions of these homeowners. Contrary to what you may be hearing, listening to the residents has not been successful, especially for this HOA membership. Shame on staff. Noted in the Study (pg. 19) "Where the trail would be located adjacent to the front yards of houses, noise levels would be greater. A noise analysis would be required during the preparation of the CEQA document for the project". That's all well and good, but what is the mitigation if noise levels are above acceptance? Too little, too late.

Please review Figure 3.2 Activity Generators near the Regnart Creek Trail in the Study. There is no retail shopping on this trail; no direct outlet to schools; no high density housing as a feeder; no religion center. Granted, there is Wilson Park and Civic Center, with Civic Center being the only area with pedestrian demand (refer: Figure 6, Page 10 - Composite pedestrian demand index map of the City of Cupertino Pedestrian Transportation Plan Final Report / February 2018). <http://www.cupertino.org/home/showdocument?id=16812>

I would say users (walkers or bikers) traveling west to Civic Center would cut off at the Rodrigues Trail Connector vs. traveling to the end of the trail at Pacifica and then cutting back. Unless there is another trail extension across Pacifica that the public is not yet aware of. If there is, why don't we know about it?

I would like to see more specified bike lanes and keep pedestrians on the sidewalks so there is a separate space for walkers and bikers. Get moving on the Boulevard Plan. \$2.4M can buy an abundance of green paint for neighborhood streets that are already safe based on the reports from Bike/Ped. I would encourage Alternative 4 – Cost estimate \$100,000 be approved to utilize the safe residential streets. This option also benefits the city by potentially not having to increase city staff for the maintenance, cleanliness and structure of the trail. Park employees have enough to manage already. Not to mention adding another task to the Sheriff Deputies of patrolling the trail.

As a final comment, refer to Page 54 of the Study. "....The City may be held liable for injuries which are caused as a result of the breach of its duty to maintain a recreational trail in a reasonably safe condition for travel."

After doing your due diligence on this project, which must include walking the entire distance of the proposed trail to get a clear firsthand experience of the risk, do the right thing for the community and our residents and don't be overly influenced by the outspoken bike coalition.

Regards,

Kathy R Chole  
19674 Vicksburg Dr

## Melissa Stone

---

**From:** Melissa Stone on behalf of Board of Directors  
**Sent:** Thursday, September 13, 2018 10:24 AM  
**To:** 'Kathy R Chole'  
**Cc:** Board of Directors; 'dpaul@cupertino.org'; 'rsinks@cupertino.org'; 'svaidhyanathan@cupertino.org'; 'bchang@cupertino.org'; 'sscharf@cupertino.org'; 'Timmb@cupertino.org'  
**Subject:** RE: Regnart Creek Trail - Opposing Approval  
**Attachments:** Regnart Creek letter - August 21, 2018.pdf

### Sent on behalf of Director Hsueh

Dear Ms. Chole,

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Please feel free to contact Ms. Usha Chatwani, Community Projects Review Manager, at (408) 630-2731, if you have any additional concerns or questions about the District's review process for these types of projects.

Sincerely,



Nai Hsueh  
Director, District 5

C-18-0170

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**Melissa Stone**

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**From:** i <erick62465@aol.com>  
**Sent:** Sunday, September 09, 2018 2:31 PM  
**To:** Board of Directors  
**Subject:** Regnart Path, Water District 5

Dear Board Members of Valley Water,

My name is Candace Erickson. I live at 20095 Las Ondas Way, Cupertino, CA 95014. My property backs up to Regart Creek. I recently attended a meeting of the Cupertino City Council in which the council approved a feasibility study of a path for walking and bicycles, running from Pacifica Ave to Creekside Park in Cupertino.

I am not in favor of the Regnart Path. I have lived here for 55 years and originally the creek was open. I do not remember when it was closed, but I have been thankful for that happening. I am concerned about the creek being clean and a good place for wildlife. When the water is running I have often seen ducks raising their ducklings there. I also care about the safety of children who may be using the creek to travel to school. There is a matter of privacy for some of the folks that live along the creek as well.

I ask that you would consider voting against the Regnart Path construction on water district property.

Sincerely,

Candace Erickson  
20095 Las Ondas Way  
Cupertino, CA 95014  
I

## Melissa Stone

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**From:** Melissa Stone on behalf of Board of Directors  
**Sent:** Thursday, September 13, 2018 10:28 AM  
**To:** 'I'  
**Cc:** Board of Directors; 'dpaul@cupertino.org'; 'rsinks@cupertino.org'; 'svaidhyanathan@cupertino.org'; 'bchang@cupertino.org'; 'sscharf@cupertino.org'; 'Timmb@cupertino.org'  
**Subject:** RE: Regnart Path, Water District 5  
**Attachments:** Regnart Creek letter - August 21, 2018.pdf

### Sent on behalf of Director Hsueh

Dear Ms. Erickson,

Thank you for your e-mail dated September 9, 2018, regarding your concerns with the City of Cupertino's (City) proposed trail along Regnart Creek. I am aware that on August 21, 2018, the City Council approved proceeding with a proposal to use portions of Regnart Creek from Pacifica Drive to E. Estates Drive as a public trail and connect it to the existing trail into Creekside Park. Santa Clara Valley Water District (District) staff have been in discussions with the City regarding impacts to flood protection and/or operations and maintenance of our facilities. District staff also reviewed the draft Regnart Creek Trail Feasibility Study, and provided our comments and concerns to the City, which are included in the attached letter dated August 21, 2018.

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Please feel free to contact Ms. Usha Chatwani, Community Projects Review Manager, at (408) 630-2731, if you have any additional concerns or questions about the District's review process for these types of projects.

Sincerely,



Nai Hsueh  
Director, District 5

C-18-0171



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## Melissa Stone

---

**From:** Board of Directors  
**Subject:** FW: Concerns about Cupertino's Regnart Creek biking trail plan

**From:** Kevin Lu [mailto:kevinjlu1@gmail.com]  
**Sent:** Thursday, September 13, 2018 4:24 PM  
**To:** Board of Directors <board@valleywater.org>  
**Subject:** Re: Concerns about Cupertino's Regnart Creek biking trail plan

Thank you for your reply. Although they held public meetings or hearings, that's just a formality as the city representative simply asked the residents affected most to choose fencing options, not willing to listen to what cost effective ways to achieve the desired results. Please read another post today about a different topic from someone complaining about the city council in Cupertino:

 Ganesh Kanna  
Rancho Rinconada

### [Yes your vote counts - if Not you Then Who, if not Now then When - Speak Up.](#)

In recent years, the majority of the Cupertino City Council stops listening to the residents who elected them. They do not honor the wishes of their constituency or duly respond to the pleas from residents to protect and preserve the quality of life in their city. For example, the Cupertino City Council ignores the will of the majority of the residents who rejected a Vallco re-development plan in 2016 election, known as "Measure D," to substantially cut back of retails-space and to build a huge office park. The 2016 plan would have taken away the last available large retails-space in the city, worsen the imbalance of office/housing units—thereby significantly exacerbate the housing shortage and traffic overloads. Instead, the City Council now elects to side with developer to approve plans that are several times worse than the defeated "Measure D" in terms of the monstrous size, density and height – from "three buildings of 7-story, 120 ft high (143 ft high if including the green roof) and 389 to 800 apartments" in "Measure D." to "more buildings, as high as 170 ft and 2,923 apartments." in the ever-evolving "Vallco Specific Plan." The new Vallco plan will have a total eye-popping build-out of 11.3 Million square feet on a 57-acre lot. For comparison: Salesforce Tower in San Francisco is 1.6 Million sq. ft. Apple Park is 2.8 Million sq. ft. on 175 acres. the two landmark skyscrapers in New York City: - Empire State Building is 2.73 million sq.ft. - One World Trade Center is 2.60 million sq.ft. It will bring as many as 14,000 daytime workers into Cupertino daily (next to Apple Park's 14,200 with most of them merely relocating from other Cupertino sites). This spells the end of our quiet suburban life!! The Vallco re-development, if moving forward, will lead to absolutely unsustainable traffic gridlocks on highways and almost all local streets in the municipality, cause certain stagnation and depletion of city infrastructure support, such as the electricity and water supply shortage, sewage system backup, storm drain blockage, and major increase of maintenance and upgrade costs to the aging systems in Cupertino. Many of your school-year children will linger in portable modular classrooms as the number of students skyrockets upward. None of these have been taken into account or made the developer to share any fiscal responsibility to ease the pains. This is only the tip of the iceberg. We must have a house-cleaning and bring back the democracy - of the people, by the people and for the people. Cupertino is in crisis. The city will inevitably grow, but we need sensible and balanced growth.

45m ago · 24 neighborhoods in [General](#)

Noted  
C-18-0178

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**Melissa Stone**

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**From:** Board of Directors  
**Subject:** FW: Liability issues regarding Regnart Creek Path

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**From:** Linda Wyckoff [mailto:lwycckoff2@yahoo.com]  
**Sent:** Thursday, September 13, 2018 3:02 PM  
**To:** Board of Directors <board@valleywater.org>  
**Subject:** Re: Liability issues regarding Regnart Creek Path

Honorable Board of Directors for the Water District,

Thank you for your response to my neighborhood's concerns regarding the implementation of a path along Regnart creek in Cupertino. Please do keep me posted of any meetings or other issues regarding this proposed path.

Regards,  
Linda Wyckoff

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**Melissa Stone**

---

**From:** Tong-Ming Lee <tml\_ee\_us@yahoo.com>  
**Sent:** Monday, September 17, 2018 7:21 PM  
**To:** Board of Directors  
**Subject:** Fw: I disagree with the proposed Regnart Creek trail!

Dear Water District board members,

We're in Water District 5. It's regarding the proposed Regnart Creek trail. I'm forwarding the email that I sent to Cupertino City Council members earlier. I expressed my concerns. I'd really appreciate if you all could take those concerns into consideration.

Thanks,  
Tong-Ming Lee

—— Forwarded Message ——

**From:** Tong-Ming Lee <tml\_ee\_us@yahoo.com>  
**To:** dpaul@cupertino.org <dpaul@cupertino.org>; rsinks@cupertino.org <rsinks@cupertino.org>; svaidthyanathan@cupertino.org <svaidthyanathan@cupertino.org>; bchang@cupertino.org <bchang@cupertino.org>; sscharf@cupertino.org <sscharf@cupertino.org>; citycouncil@cupertino.org <citycouncil@cupertino.org>  
**Sent:** Tuesday, August 21, 2018, 5:24:08 AM PDT  
**Subject:** I disagree with the proposed Regnart Creek trail!

Dear Council Members,

I am a Cupertino resident, and I oppose the proposed Regnart Creek trail for the following reasons:

- Increased traffic and risk to school children due to creation of an additional crosswalk across Blaney that students would use during rush hour
- Increased security risk and decreased privacy of the neighborhood residents whose front yards and back yards border the creek
- Loss of habitat for animals such as opossums, frogs, and ducks; coyotes and vultures that frequent the creek also pose risk to rail users
- Waste of money – there are existing residential streets and sidewalks parallel to the trail that have the highest safety ratings and low traffic, and have not been included in the feasibility study

I request you to vote against the Regnart Creek trail proposal, and instead encourage citizens to use existing alternate paths in this neighborhood. I would appreciate if the city put the funds allocated for such a trail to good use elsewhere, such as promoting environmental initiatives and creating outdoor programs for children.

Thanks,  
Tong-Ming Lee  
Cupertino Resident of 30 years

Noted  
C-18-0183



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I support reviewing the policy; I am not happy with what little of the process I have seen so far

- \* you should adopt an approach once you have announced a study like this to do a public checkin at least every six months rather than leaving us wondering what is happening, even if it is nothing more than a line or two in a Chief's report at a Board meeting

it has been 14 mo since the Board and I last heard about this review

6. back then, Staff planned to conduct outreach via three stakeholder meetings  
once again you do not define stakeholder;  
who did you choose to speak for all of us?  
those 3 meetings were to be held in Mountain View, San Jose, and South County by the end of 2018 - which is now 2 mo away  
\* did you have those meetings? if so, with whom?

1. staff planned to talk to City of San Jose  
but only look at Cities' trail master plans  
\* why not talk to Cities Park/Rec or Bike/Ped commissions

2. Staff was to work with Valley Transportation Authority (VTA)  
\* no presentation to VTA County-wide BPAC

- \* no identified plan to talk to County Parks about their trails master plan

- \* Finally  
my real-life example, - MH has an official plan at the City and County level to convert Madrone Channel dirt maint road to all-weather surface as one segment in a route for school access and commuters from downtown MH to Coyote Creek Parkway  
the dilemma- do we go for grants when you might then disallow our proposed improvements?

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## Michelle Critchlow

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**From:** Michelle Critchlow on behalf of Board Correspondence  
**Sent:** Wednesday, November 21, 2018 1:44 PM  
**To:** doug.muirhead@stanfordalumni.org  
**Cc:** Board Correspondence  
**Subject:** Trails Summit

### Sent on behalf of Chair Santos

Dear Mr. Muirhead,

Thank you for your November 9, 2018 email regarding the District's efforts to update its policies on the use of District property for trails, open space, and recreation along creeks. As you mentioned in your e-mail, the next steps identified in the August 22, 2017, board agenda included three stakeholder meetings by the end of 2018. These meetings did not occur due to the Trail Summit, which I hosted as the 2018 Board Chair. The Trail Summit included invitations to every city in Santa Clara County, as well as staff from the County of Santa Clara. Invitations were also sent to the Santa Clara County Open Space Authority, Midpeninsula Regional Open Space Authority, Santa Clara Valley Transportation Company, and several trail and open space advocacy groups, including but not limited to Committee for Green Foothills, Save our Trails, Bay Area Ridge Trail Council, and the Silicon Valley Bicycle Coalition. If you feel that certain groups should be included in the future, please let us know so that we may include them in future outreach events.

At your suggestion, District staff has included a timeline of events and outreach that has occurred since the policy discussion was first brought to the Board on January 10, 2017, as an attachment to the agenda memo for the upcoming November 26, 2018 Board Policy and Planning Commission meeting.

To address your specific concern about the City of Morgan Hill's plans for the Madrone Channel trail, please be aware that the current policy discussion is focused on addressing difficult trail sites where conflicting purposes create a mission prioritization dilemma (i.e. flood protection maintenance versus trail access or trail access versus stream stewardship goals, etc.). In the case of Madrone Channel, District staff does not anticipate any new policy that would change the District's existing direction or guidance on trail planning and design along this channel. As Mr. Ghione communicated to you in his November 12, 2018 e-mail response to your inquiry, the City has direct communications with the District on its trail planning efforts and will continue to work together on future planning.

If you have additional questions, you may refer them to our trail coordinator, Ms. Yvonne Arroyo, at [varroyo@valleywater.org](mailto:varroyo@valleywater.org) or at (408) 630-2319. Again, we appreciate your continued civic engagement and interest in the District.

Sincerely,



Richard P. Santos  
Chair/Board of Directors  
Santa Clara Valley Water District  
C-18-0199

-----Original Message-----

From: D. Muirhead [<mailto:doug.muirhead@stanfordalumni.org>]

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## Michelle Critchlow

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**From:** Board of Directors  
**Subject:** FW: Proposed Regnart Creek issues/comments

**From:** Ilango [<mailto:ilangog@yahoo.com>]  
**Sent:** Thursday, November 15, 2018 6:03 PM  
**To:** Usha Chatwani <[uchatwani@valleywater.org](mailto:uchatwani@valleywater.org)>; Melanie Richardson <[mrichardson@valleywater.org](mailto:mrichardson@valleywater.org)>  
**Cc:** Nai Hsueh <[NHsueh@valleywater.org](mailto:NHsueh@valleywater.org)>  
**Subject:** Proposed Regnart Creek issues/comments

Dear Melanie / Usha,

I am one of the 82 residents affected by the proposed Regnart Creek Trail that share the property line with the Santa Clara Valley water district. I have a few questions/comments as noted below:

**Railings:** As per the Water district letter to the City dated Aug 21st, no railings will be allowed on the water district right of way. The feasibility study still shows various railing options and discussions with water district to be continued. *We would like to know the current status of the railings* because this trail was promoted as a safe route to school for children.

**Width:** *We would like to know the available width for the trail path* as per water district records. There is major discrepancy in the feasibility study and the water district letter Aug 21. A total of 16 feet width is required to build a Class 1 Bike lane, whereas there is not enough space (less than 12 ft) to build a safe Class 1 shared used bike lane.

**Fire Risk:** After watching the California Wild fires this season, the residents are concerned about the dry brush along the creek/trail. If the path is open to the public, the risk of fire danger is higher (someone smoking/throwing cigarette) to adjacent homes along the path. The residents would be living in constant fear due this risk. *Is the water district responsible for clearing the bushes and keeping it clean all the time?* This fire risk is not documented and ongoing maintenance is not budgeted in the feasibility study.

Please let us know about the current status, I would appreciate a reply.

Thanks,  
Ilango Ganga  
Resident, Cupertino



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## Melissa Stone

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**From:** Melissa Stone  
**Sent:** Monday, February 04, 2019 8:38 AM  
**To:** Board of Directors  
**Subject:** FW: Cupertino, Regnart Creek

Begin forwarded message:

**From:** Julia Miyakawa <[jemiyakawa@yahoo.com](mailto:jemiyakawa@yahoo.com)>  
**Date:** February 1, 2019 at 4:51:54 PM PST  
**To:** Nai Hsueh <[nhsueh@valleywater.org](mailto:nhsueh@valleywater.org)>  
**Subject:** Cupertino, Regnart Creek  
**Reply-To:** "[jemiyakawa@yahoo.com](mailto:jemiyakawa@yahoo.com)" <[jemiyakawa@yahoo.com](mailto:jemiyakawa@yahoo.com)>

Ms. Hsueh

A few months ago a group of us concerned about the city of Cupertino adopting the Regnart Creek Feasibility study, attended the water district meeting expressing our concerns . At that time we were told we would be informed of meetings between the city of Cupertino and the water district. Apparently there has been couple of meetings, but did not receive any notice. Are minutes of the meetings available? Would they be available for review?

Please inform me of any future meetings.

Also is there a Trail guideline process? Will the water district have a draft for public comment? Will wait for your reply.

Respectfully,  
Julia Miyakawa

[Sent from Yahoo Mail on Android](#)

Referred  
C-19-0030

## Melissa Stone

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**From:** Board of Directors  
**Subject:** FW: Cupertino, Regnart Creek

**From:** Melissa Stone On Behalf Of Board of Directors  
**Sent:** Thursday, February 14, 2019 1:54 PM  
**To:** 'jemiyakawa@yahoo.com' <jemiyakawa@yahoo.com>  
**Cc:** Board of Directors <board@valleywater.org>  
**Subject:** RE: Cupertino, Regnart Creek

**Sent on behalf of Vice-Chair Hsueh**

Dear Ms. Miyakawa,

Thank you for your email dated February 1, 2019, regarding the Regnart Creek Feasibility Study. After the Board Policy and Planning Committee (BPPC) meeting on November 26, 2018, District staff met with the City of Cupertino on January 7, 2019. The City posted meeting minutes to their website at: <https://www.cupertino.org/our-city/departments/public-works/transportation-mobility/bicycle-and-pedestrian-travel/bicycle-transportation-plan-implementation/regnart-creek-trail> under a new section of the Regnart Creek Trail information page called "Santa Clara Valley Water District." At this time, no further meetings are planned with the City.

District staff is working on a new trail policy for Board discussion and eventual approval this year. The policy is intended to clarify the District's support of trails proposed on our property, and will be accompanied by a "toolkit" that provides clear guidelines for trail projects. The first BPPC meeting to review the proposed policy framework and public outreach plan is scheduled for Monday, February 25, 2019 at 2:00 pm. Because we are very early in the process, no policy decisions will be made at the meeting, and draft policy language has not yet been developed. The meeting agenda will be posted online on February 19, 2019, and is open to the public.

While the work on policy development proceeds, staff continues to negotiate with Cupertino staff to shape the project. If agreed upon conditions can't be negotiated due to impacts on Regnart Creek habitat or District operations, staff may seek input from the Board. This may occur before the policy work is complete.

If you have further questions, please feel free to contact Ms. Usha Chatwani, Community Projects Review Unit Manager, at (408) 630-2731.

Sincerely,



Nai Hsueh  
Vice Chair/Board of Directors

C-19-0030

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**Melissa Stone**

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**From:** Gary Wong <mgarywong@gmail.com>  
**Sent:** Sunday, March 03, 2019 9:23 PM  
**To:** Board of Directors  
**Cc:** Melanie Richardson; Usha Chatwani; Liz Bettencourt; Yvonne Arroyo  
**Subject:** Regnart Creek Trail Feasibility Study  
**Attachments:** Regnart Creek Trail Studies Comparison of Changes GWong 19\_0302 .docx

Honorable Board Members Hsueh (District 5) and Keegan (District 2):

On behalf of the residents who reside along Regnart Creek, we thank you for allowing us to attend your Board Policy and Planning Committee meeting last Monday and share our thoughts and comments on SCVWD's proposed Trail Policy Guidelines. At a recent City Council Meeting held two weeks ago, Councilman Willey requested a comparison of the approved draft Feasibility Study and the Final Study substituted and posted on the City's website. Knowing how busy City staff is, we prepared the following comparison of (i) the approved trail feasibility study; (ii) the Final Trail Study and (iii) Water District's comments from its letter dated August 21, 2018.

While the City states there were only administrative issues and changes, a comparison of the District's letter and the Final Study indicates there are remaining issues of substance to be addressed. We thought the comparison may be useful to the District and are attaching a copy hereto.

Respectfully,

Gary Wong  
Cupertino resident and  
President, Campo De Lozano HOA

Noted  
C-19-0064

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## Melissa Stone

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**From:** Linda Wyckoff <lwyckoff2@yahoo.com>  
**Sent:** Wednesday, March 13, 2019 5:57 PM  
**To:** Board of Directors; Melanie Richardson  
**Subject:** Regnart Trail Presentation to Board 3/12/19  
**Attachments:** Regnart Path - Water District Presentation - 3-12-2019.docx

Esteemed Water Board Directors,

I spoke during Open Communications at the Board Meeting on Tuesday, March 12th regarding issues with Regnart Creek Trail in Cupertino and I would like the text of my message entered into the meeting minutes. I have attached them below.

Thank you for your consideration,  
Linda Wyckoff

I am a Cupertino Residents, sharing my property line with Water District lands along Regnart Creek. We are aware that the district is developing a trail policy framework and trail design tool kit. We'd like to request that the board strives to ensure trail user safety, as well as the privacy & security of adjacent residential properties when developing this policy.

Santa Clara county Inter Jurisdictional Trail design guideline 1999 sets the standards for trail designs in the county. The Water District, along with 15 cities including Cupertino, are party to this design guideline. These guidelines set standards for Trail width and minimum setbacks from residential dwelling units and from private fences. This established criteria should be adhered to when developing trail design policy.

In 2018, the Water District worked with the city of San Jose to develop a Trail design tool kit for the city that sets the minimum setback of five feet from residential fences to public trails. However, we recently noticed from Jan 7th meeting minutes between the city of Cupertino and the water district, that the consultant proposed a one foot set back to property fences and no set back from bridges. This is unacceptable and should not even be entertained by the district.

We do not want individual cities to set a precedence by circumventing important standards that protect residences sharing the property line with the water district, and also compromise trail user safety.

So, when retrofitting trails into existing dense urban and suburban neighborhoods like ours, where 82 homes are affected within just a three-quarter mile long portion of the creek, we request the water district to not only look at maintenance operations, but also be considerate to adjacent residents, keeping in mind their safety, security, privacy, and desire for peaceful living.

When the water district is developing the Trail policy framework and entering into agreements with cities, please ensure that minimum setbacks from private property fences to public trails, and other trail width guidelines, are followed.

Our request is simple. Please just be a good neighbor, and follow established guidelines and requirements. Don't shirk these responsibilities just to appease the desires of private consultants and developers.

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**Melissa Stone**

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**From:** Linda Wyckoff <lwyckoff2@yahoo.com>  
**Sent:** Friday, April 19, 2019 7:53 AM  
**To:** Board of Directors; Melanie Richardson  
**Subject:** Regnart Trail Setbacks

Esteemed Water District Board Members and Ms. Richardson,

I am writing as a resident who will be deeply affected by the proposed Regnart Creek Trail if it ever comes to fruition. The words I write should apply to **ALL** trails that will be brought forwarding to the Water District. The City of Cupertino is trying to bypass recommended guidelines for setbacks to private residences that border the trail. If they are given this opportunity to bypass guidelines with this project, then they will have been given permission to bypass these guidelines for **all trails** built in the future in **all cities** under your jurisdiction. This loosening of the rules should not be permitted under any circumstance as the entire Regnart Creek Trail is just one big pinch point.

The guidelines were developed to ensure the privacy, security, safety and noise minimization for homeowners. Due diligence was not exercised when this path was originally proposed. Neighbors were not notified of the trail proposed right behind their back fences until at least 15 months after the fact. We had no early input. Our suggestions are still mostly unheeded.

Please uphold the trail guidelines which were brought forth to you previously.

Regards,  
Linda Wyckoff

Referred  
C-19-0110

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**From:** benaifer dastoor <bddastoor@yahoo.com>  
**Sent:** Sunday, April 21, 2019 10:30 PM  
**To:** Board of Directors  
**Cc:** Melanie Richardson; Usha Chatwani  
**Subject:** Regnart Creek - serious safety concerns for the residents and the potential users  
**Attachments:** RegnartCreek-Water district letter.pdf; La Mar homesIMG\_1027.JPG; La Mar - winter 2016-17 IMG\_0355.JPG

Dear Valley Water Board members,

I am writing as a resident of La Mar Drive whose home abuts the Regnart Creek.

We understand the SCVWD encourages trails along the creeks wherever possible and we support that policy. However, different paths and creeks have different geography with respect to width, upstream/downstream, creek wild life, health of the creek, flood control, proximity to homes - making some creek paths feasible for a trail and others not so much. The Regnart Creek falls under the latter category.

It is very important that the SCVWD, the owners of the land along the creeks in the county, develop commonsense trail guidelines to ensure the safety for all – creek health, homeowners along the trail, and the proposed users.

**It is disappointing to learn that the SCVWD is granting exception to the Regnart Creek trail being proposed by the City of Cupertino despite the trail not being compliant with the Santa Clara County Uniform Interjurisdictional Trail Design, Use, and Management Guidelines (Cupertino city is a signatory to these guidelines).**

**Here are some major issues concerning Regnart Creek that need to be considered if the SCVWD feels compelled to enter into the JUA with the City of Cupertino:**

1) The proposed expensive creek path proposed as trail is **just 0.8 miles**. It is non-contiguous, involves crossing streets at several points – the most hazardous being the new crossing to be introduced mid Blaney disrupting the morning commute traffic and endangering children and bicyclists zipping in and out of trail (blind spots for motorist) to get from one end to another.

*Pg 17 Santa Clara County Uniform Interjurisdictional Trail Design, Use, and Management Guidelines*

**UD - 1.1.5 Trail alignments should be selected that minimize intersections with motorized vehicles.**

2) The Path is very narrow with steep slopes in most sections – La Mar Dr (12 -13 feet ), Lozano Lane and DePalma Lane (10 feet ). **This would barely provide for setbacks (two feet or less) on the creek side and for the residential properties abutting the trail and a tread of barely 8 feet for shared use – up and down bicyclists, pedestrians, people walking their dogs versus a wide street like La Mar Dr which runs parallel to the creek has a width of about 40 feet plus sidewalks measuring 4.5 feet.**

3) **The Creek path is in midst of dense neighborhood – 82 homes along the path and its residents will be directly impacted.** With barely any setbacks, no additional security walls/fences provided by the city to protect the home owners, the homeowners are left vulnerable – no safety, no privacy.

*Pg 16 Santa Clara County Uniform Interjurisdictional Trail Design, Use, and Management Guidelines*

**UD - 1.1.2 (††)\* Trails shall generally be sited as far away from occupied dwellings as practical. Where trails are developed in conjunction with high-density residential areas, it may be appropriate to incorporate the trail or access to the trail into the overall circulation of the housing complex. In these situations, the trail alignment should be developed**



alleys and should take into consideration the privacy of residents using setbacks as indicated in Table UD-1. (See also: Figure T-4). Table UD-1: Trail Setbacks Land Use Category(1) Trail Setback (2) Residential 25 feet (7.6 m)

UD - 1.1.4 (†)\* In areas where trail routes are adjacent to private property, visible fencing shall be employed, if requested by the adjacent property owner, to deter users from leaving the trail. Type of fencing should be determined in consultation with the property owner(s). Security fencing or walls should be no closer to the trail than 3'-6" (1 m) and no lower than 4'-8" (1.4 m). (See also: Guideline UD - 4.11.2, Figures T-4, T-5A, and T-5B).

4) Because of the trail's proximity to the homes without any additional security barriers or fences separating the homes from the trail, a cigarette or a joint dropped by a trail user could increase the fire risk to the whole neighborhood, in the dry summer months.

5) Last but not the least - I am attaching the SCVWD staff letter which pointed out several flaws in the Regnart Creek Trail Feasibility Report presented to the city council for approval in August 2018. The flawed feasibility report with material errors was approved by the City Council anyways. The letter sent by your staff corroborates the issues pointed out by the residents all along, about the width of the trail, unstable banks, risks to the homeowners, users and this being not the most ideal location for creating a trail.

I urge you to please evaluate the risks to the residents (your neighbors), the proposed users and to the creek before you move further along and grant the permission to open this closed creek to public. Transferring the liability to the city with JUA does not absolve the water district who is owner of the land from its civic responsibilities.

I would also like to extend the invitation on behalf of all the 82 homes along the creek to walk the creek path and get firsthand information for yourself. The residents would love to walk with you and appreciate the opportunity.

Thank you,

Sincerely,  
Benaifer Dastoor  
Resident  
La Mar Dr.  
Cupertino, CA

File: 33661  
Regnart Creek

August 21, 2018

Ms. Jennifer Chu PE  
Associate Civil Engineer  
City of Cupertino  
Public Works Department  
10300 Torre Avenue  
Cupertino, CA 95014

Re: Comments on Regnart Creek Trail Feasibility Study

Dear Ms. Chu,

Santa Clara Valley Water District (District) staff has reviewed the administrative draft of the Regnart Creek Trail Feasibility Study (Study) received on August 3, 2018. The District has identified the portion of Regnart Creek between East Estates Drive to Pacifica Drive (the feasibility study limits) as either showing signs of deterioration and in a "monitoring" mode and/or in need of minor maintenance or in such a state of degradation that a more significant maintenance project is required, with the most seriously degraded areas located between Wilson Park and Brittany Court. Consequently, the District has concerns that the Study analysis does not include sufficient deference or consideration to the needs and requirements of the District for performing flood protection operations and maintenance work, including cost increases to District operations associated with each alternative, in its ranking of feasible alternatives where those alternatives include reaches located on District right of way. The District has the following specific comments on the subject document and requests that these issues be addressed prior to final adoption of the feasibility study.

- 1) Page 3, "Trail Access": Please note that District access roads have limited space for amenities such as informational boards, seating, etc. This section should specify that trailhead amenities may be provided where they do not conflict with or reduce the District's existing maintenance access.
- 2) Page 4, Table 1.3: Alternative 1 is the preferred alternative but has the most adverse impacts to the District's maintenance access and operations. Alternatives 4 or 5 will have the least impact to the District's maintenance access and operations, followed by Alternatives 2, 3 and then 1 (most impactful).
- 3) Pages 7 and 11: Designating trails as transportation corridors can be a problem for the District when considering future uses of the right of way for District purposes. It confers a duty onto the District, through CEQA, to mitigate for any loss of or adverse impacts to the transportation corridor, in addition to any lost recreational use. Any future joint use agreement with the City for portions of the trail located on District right of way will provide that the City be responsible for trail closures, trail detour routes, signs, and

Our mission is to provide Silicon Valley safe, clean water for a healthy life, environment, and economy.

maps, and any CEQA documentation and mitigation required to implement the trail closures, when needed to allow the District to perform its flood protection work.

- 4) Page 8. Agencies and Stakeholders: The ingress-egress rights of PG&E and AT&T should be verified through actual title documentation.
- 5) Page 14. Regnart Creek Right-of-Way:
  - a. The Study states that our maintenance road varies from 12 to 25'. District as-built shows the maintenance road widths in this reach are mainly between 10 feet and 15 feet; however, this width has been reduced in many areas due to ongoing erosion/deterioration. The document should be revised to reflect this information.
  - b. City responsibilities will be outlined in any future joint use agreement with the District and will include responsibilities mentioned in our comment no. 3, above.
- 6) Page 16. Watershed and Creek Conditions: The feasibility study states the channel has no erosion. The information provided appears to have been taken from an outdated report. We have documented erosion or sediment conditions in all reaches of Regnart Creek from East Estates Drive to Pacifica Drive. The banks in these reaches are unstable. As mentioned earlier, the majority of the study area has significant erosion/damage/undercutting and minor repairs are needed. There are also a handful of areas where a larger repair is needed. This section of the study needs to be updated to reflect the current conditions along Regnart Creek where the trail is proposed.
- 7) Page 22. Available Right-of-Way: See comment no. 5a, above.
- 8) Page 25. Trail Design and Construction Practices:
  - a. The text should clarify that the District does not have allowable trail tread width standards—perhaps a different agency should be referenced.
  - b. The District does specify that trails should be able to accommodate fully loaded maintenance equipment and any damage to the trail will be City responsibility.
- 9) Page 25. Trail Closures: This section should clearly specify that the City will take responsibility for trail closures when needed for District flood protection maintenance purposes.
- 10) Page 25. Private Access to Public Trails: This section should be revised to reflect that the District does not allow or permit private access to public trails. All access points must be public access points controlled by the City.
- 11) Page 26. Trail Monitoring and Maintenance:
  - a. This section refers to "managing agencies." This section should be revised to reflect that the City is the single managing agency for the trail.
  - b. Maintenance and inspection criteria that the City will utilize should be specified.
  - c. The Study states that, "Corrective work for drainage or erosion problem shall be performed within a reasonable period of time." The Study should specify that the City will prioritize and implement immediate repairs on District right of way where problems are impacting Regnart Creek or maintenance activities.
- 12) Page 27. Public Outreach: The District would like to be invited to participate in future outreach efforts so that we can be aware of community concerns related to the proposed use of our right of way and the City's plans for addressing those concerns.
- 13) Pages 34 thru 38: As mentioned in comment #2, Alternative 1 would be most impactful to the District's operation and maintenance activities. It will increase maintenance costs on any work we do in this area, and the bridges may not be feasible without more



detailed information on how their construction will affect our maintenance access. Additionally, it has been our experience that pedestrian bridge abutments cannot usually be constructed without removing the adjacent creek bank, which will require regulatory approvals.

**14) Page 39, Creek Bridges:**

- a. See comment no. 13. Bridges reduce the width of maintenance roads, as does the addition of fill and fencing. The District will still need access around the bridges with vehicles throughout the year. This section should include actual cross sections on this page at the most restrictive pinch points to show how the existing maintenance road access width will be impacted.
- b. For removable bridges, the Study should specify how quickly the City will respond to requests to remove their bridges when requested by the District and provide a description of the public noticing that the City will perform for its removal/closure.

**15) Pages 40 and 41, Figures 6.8, 6.11 and 6.12:** Railing will not be allowed along the top of bank, unless it is outside District right of way as it impedes our ability to access the channel from the top of bank.

**16) Page 42, Alternatives Discontinued from Further Evaluation:** The Study states that box culvert and cantilever designs and reduction in road width from fence posts weren't selected because they were unacceptable to the District, or the District was unwilling to accept them, or they were unfavorable to the District. The language should be changed to indicate that these alternatives were discontinued since they would cause erosion, affect seasonal wetlands, and restrict District maintenance activities required for flood protection. The box culvert and cantilever designs were not selected based on sound engineering principles and do not represent the District's opinion.

**17) Page 44, Trail Heads:** Trailhead features should not limit ability for the District's maintenance equipment to enter and leave maintenance roads.

**18) Page 45, Figure 6.16:** Planting and decorative pavement at entrances are subject to damage and may be in the way of maintenance activities.

**19) Page 47, Security and Safety:**

- a. Safety railing and features make maintenance and inspection of District facilities difficult. Most bank slopes are steeper than 3:1. At 3:1, no fencing is required. A fence 2 feet from top of bank reduces usable space understanding that a vehicle needs more than 8' +/- width of the vehicle when there are constraints/wall on either side. Additionally, secondary screening fences will take another 18 inches or so, further reducing the width of the maintenance road.
- b. Removable fencing is also a lot of work and setting the fencing 2 feet back from the top of bank will reduce the District's maintenance footprint to 10 feet in some places which is not enough room for maintenance equipment.

**20) Pages 51 thru 53:** The biggest cost to the District from the proposed alternatives is the cost of all additional measures that come with maintenance on a pedestrian corridor. It limits when and how we inspect our facilities, it increases public frustration with the District when facilities must be closed, and increases labor hours to work around additional features and facilities (bridges, railing, trailheads, etc.).

Ms. Jennifer Chu  
Page 4  
August 21, 2018

- 21) Page 57, Trail Surfacing Evaluation and Recommendation: Porous pavement must be designed to withstand maintenance vehicle loads, and any swale/drainage designs cannot restrict maintenance path width.
- 22) Page 59, Security Measure Evaluation & Recommendation and Railing Evaluation & Recommendation
- a. Suggest City staff assess sheriff and police availability for the recommended patrols and seek commitment through an agreement with police that they can provide this level of support. We have found, county wide, that Police Departments are strapped for resources and cannot provide consistent patrolling.
  - b. The Study states that removable fencing /posts is consistent with many creekside trails. There are few Santa Clara County trails that have top of bank fencing. This is a significant impact to the District which must be addressed. The time to remove the railings adds significant costs to creek maintenance when the District has limited regulatory window of time each season to perform its maintenance activities.

We appreciate the opportunity to provide comments. I may be reached at (408) 630-2731, if you have any questions.

Sincerely,



Usha Chatwani, P.E.  
Engineering Unit Manager (Permit Authority)  
Community Projects Review Unit

cc: M. Richardson, S. Tippets, Y. Arroyo, U. Chatwani, S. Dharaskar, C. Houston,  
J. Codianne, C. Pilson, C. Grande











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**Melissa Stone**

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**From:** Tony Fong <tonyfong@sbcglobal.net>  
**Sent:** Sunday, April 21, 2019 8:56 AM  
**To:** Board of Directors  
**Cc:** Melanie Richardson; Shekar Pasumarthi; Vicky Yutronic; Kumar Sarvan; Fung Yee Mak; Rex and Teresa Tsu  
**Subject:** Regnart Creek Trail Issue

Hello Valley Water Board,

My name is Tony Fong and I own the property on 20182 Rodrigues Ave. I am the president of the Longacre Homeowner's Association comprising of six homes that is directly adjacent to the Regnart Creek trail. Our entire HOA is opposed to the creation of the Regnart Creek public trail.

The trail will be too close to our properties. Our current serene environment will be permanently destroyed if the public is allowed to march along our back fences. Our private quiet backyards will become public spaces. The constant noise of trail users will be intrusive and render our backyards unusable. Our windows will have to be permanently draped to prevent people passing by from peering into our living areas.

I have attached several pictures to better illustrate our situation. As you can see from the pictures our backyard abuts the trail and our living quarters are in full view. The existing 6 foot fence does almost nothing to shield us from the trail.

The proposal to upgrade the existing streets (city's alternative plan 4) is more than adequate to address the desires of those requesting a more "friendly" pedestrian experience. Our privacy should not have to be sacrificed to serve the needs of those who would like to walk/bike a few blocks off public streets.

As fellow homeowners I hope you can empathize with our plight and reject the Cupertino city's request to build this trail adjacent to our property.

Please save our sanity and property values!

Sincerely,  
Tony Fong  
President Longacres HOA

Referred  
C-19-0115







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## Melissa Stone

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**From:** Fari Aberg <abergfari@gmail.com>  
**Sent:** Sunday, April 21, 2019 6:20 PM  
**To:** Board of Directors  
**Cc:** Melanie Richardson  
**Subject:** Proposed Regnart Creek Trail - Safety Concerns

Dear Board of Directors,

My name is Fari and I live next to Regnart Creek in Cupertino and I have a wonderful neighbor of 31 years called Santa Clara Valley Water District!

I am writing this email to you, as my immediate neighbor, to express my concerns regarding the proposed Regnart Creek Trail which, if approved at all, will run along my home and 81 other homes. Although it is unfortunate that the Water District trail policy and tool kit is not available yet to be used by the City of Cupertino, I wish the work in progress policy and tool kit guidelines to be enforced when reviewing the proposed trail and **please do not allow the City of Cupertino to bypass any past or known future guidelines.**

You have already heard from my neighbors and friends living next to the Regnart Creek regarding the safety issues for trail users, I am only addressing the homeowner's safety in this email.

**The proposed trail which runs too close to our properties and as narrow as 2 ft. in portions of the trail would severely and permanently impact privacy, safety and quality of life of residents living alongside the creek.**

Here are some of the many concerns that I have:

### **Safety:**

As per Santa Clara Valley Water District letter sent to the City of Cupertino on Aug 21st, 2018, "Suggest City staff assess sheriff and police availability for the recommended patrol and seek commitment through an agreement with police that they can provide this level of support. We have found, county wide, that Police departments are strapped for resources and cannot provide consistent patrolling".

I have been personally told by Sheriff that my house will be an easy target for intruders and I should invest in alarm system, security cameras and install motion detector lights all around my property. Who is going to assure our safety if the trail opens?

### **Fire Hazard:**

We have had very dry weather the past several years and with our houses being so close to the proposed trail, it is of great concern that a fire would be literal devastation to the homes located so close to the trail (e.g. danger of cigarettes, and we all know teenagers will try it!)

### **Noise pollution:**

Another issue that does not seem to be adequately considered is the noise. Our houses are not structured to implement such a trail, with houses so close to the proposed trail where noise travels 1

Referred



**providing vegetation buffers or sound walls to mitigate noise.** The noise would be unacceptable for our community. The proposed trail would destroy the very nature of our peaceful neighborhood.

**Vandalism issues:**

Opening the locked gates will make our properties subject to vandalism. Personally, myself and some of my neighbors had experienced in the past broken windows and backyard full of rocks when arriving home from work/school.

**Dangerous Crossings:**

The proposed crossings, in particular the one on S. Blaney, which has the highest traffic during school hours, are very dangerous and too close, only a tree separating the crossing and residential driveway with no clear view of the trail and do not adhere to Sight Distance Triangle Guidelines.

As our good neighbor, would you please include our safety, security and privacy before making any decisions on the proposed trail and please do not enter into a Joint Use Agreement with the City of Cupertino if you cannot mitigate neighborhood concerns.

Please protect us!  
Thank you!

Regards,  
Fari Aberg  
Cupertino Resident

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## Melissa Stone

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**From:** Shekar Pasumarthi <shekarp@pcweb.com>  
**Sent:** Sunday, April 21, 2019 4:59 PM  
**To:** Board of Directors; Melanie Richardson  
**Subject:** Regnart Creek Trail

Hello Board,

My name is Shekar Pasumarthi and I am a resident of 20192 Rodrigues Ave, Cupertino, CA 95014. My backyard is next to the trail. Here are a few reasons for which I feel it is not an ideal place for the trail.

- Very short one to be spending the money and time
- I have walked the trail and I feel it is very risky trail and to mitigate the risks it would make it very expensive
- It could open to more litigation for people injured for which the board and city would be liable to.
- Others in the city might like it but us neighbors next to compromise the following
  - serenity
  - privacy
  - security
  - In addition the foundation of our house is about 3 feet below the trail.
  - I am 5' 8" and the picture attached shows when I am on the trail From the house I can see almost upto waist. Additionally, there are picture which show that from the trail I can see into the kitchen and backyard. For this we need to keep the windows always covered.

For for the above reasons, I would request the board to strongly oppose the trail proposal. Which will save a lot of time and money for the city, so they can work on alternates instead of spending away precious resources for short trail.

Thanks  
Shekar

Referred  
C-19-0117





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Melissa Stone

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**From:** Ilango <ilangog@yahoo.com>  
**Sent:** Sunday, April 21, 2019 3:42 PM  
**To:** Board of Directors  
**Cc:** Melanie Richardson  
**Subject:** Proposed Regnart Creek Trail - Guidelines and Concerns

Dear Water District Board Members,

I am a Cupertino resident sharing my property line with the Valley Water District Lands. I read the March 28th, 2019 meeting minutes between the Valley Water and the City of Cupertino on proposed Regnart Creek Trail. I **noticed an inaccurate statement in the minutes noted as made by the District staff**. Here is an excerpt, *"Lisa Bankosh (LB) stated the Regnart Creek Trail design does not appear to deviate from current guidelines."*

<https://www.cupertino.org/home/showdocument?id=24159>

However, the trail does not meet the guidelines including setback to residential properties as set in the Santa Clara County Uniform Trail Design Guidelines.

<https://www.sccgov.org/sites/parks/PlansProjects/Documents/TrailsMasterPlan/Interjurisdictional-Trails-Guidelines-text-and-graphics.pdf>

**The trail runs too close to the homes as narrow as 2 feet from the property lines.** It does not meet the following guidelines UD 1.1.2, UD 1.1.4, Figs T-5A, T-3, T-4, UD 2.2.2, etc.,

UD 1.1.2 - Trail Setbacks Land Use Category Residential 25 feet

**Fig T- 5A - Setback to private property line greater than 10 feet optimum and 3'-6" feet minimum**

UD 1.1.4 - In areas where trail routes are adjacent to private property, security fencing or walls should be no closer to the trail than 3'-6".

Fig T-5A – Clearance 3'-6" minimum for tree, sign or other obstructions

UD 2.2.2: Shared-use trails should be designed as paved two-way paths and should have an optimum width of 12 feet.

The residents have raised neighborhood concerns specifically about the setbacks and privacy issues to the water district board and the staff since September 2018. In spite of residents' repeatedly raising this issue, I am disappointed to see an inaccurate statement from the District that states that the trail meets the guidelines when it clearly does not. Please correct the inaccurate statement.

I am aware that the District is in the process of developing a trail policy framework. I request the District to not only look at its maintenance operations but also to ensure trail user safety, privacy & security of adjacent residences while developing trails. If you allow just 2 feet setback from residential properties, the district will be setting a wrong precedence by approving a trail that runs too close to homes in a dense suburban neighborhood. **Note that the Regnart Trail affects 82 homes within 3/4th of a mile.**

Hence, I request the Board to not enter into a Joint Use Agreement with the City of Cupertino if you cannot mitigate neighborhood concerns or wait until the trail policy framework is developed by the District that is anticipated to be more definitive than existing guidelines. Please don't approve the trail

Referred

if does not meet the guidelines. I would also encourage the board members to walk the trail to fully understand the residents concerns before making any decisions.

Thanks,  
Ilango Ganga  
Cupertino Resident

Attached: Regnart Creek Trail alignment image from Google Maps – Yellow line is the creek alignment of 3/4<sup>th</sup> of a mile that runs close to 82 homes.

## Regnart Creek Trail

Runs too close to homes (as close as 2 ft) – Need wide Setbacks & Walls to protect homes



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Melissa Stone

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**From:** Ilango <ilangog@yahoo.com>  
**Sent:** Sunday, April 28, 2019 10:54 AM  
**To:** Melanie Richardson; Usha Chatwani; Nai Hsueh  
**Cc:** Board of Directors  
**Subject:** Railings 3 inches and 6 inches from Regnart Creek Bank ?  
**Attachments:** Railing 3 inch from creek bank IMG\_1159.jpg; Railing 6 inch from creek bank IMG\_1156.jpg; RegnartCreekFullTrailDesign.jpg; Regnart Creek SCVWD letter - August 21, 2018 (1).pdf

Hi Melanie,

The residents of Cupertino were shown a design (see attached) for the Railings in the community meeting on April 24th. One of your staff from VW was in attendance.

The drawings by HMH showed the railings were located 3 inches from the edge of the creek bank in parts of the trail and railings located 6 inches from edge of the creek bank in other parts of the trail. The drawings did not mention whether railings are removable or permanent. Also, the City staff mentioned, the railings, "may be" or "will be" allowed by VW, however, it was presented in a way that VW would allow railings through out the creek.

**Here is an excerpt from the letter (see attached) from VW to the City of Cupertino dated Aug 21st 2018:**

*" 6) Page 16, Watershed and Creek Conditions: The feasibility study states the channel has no erosion. The information provided appears to have been taken from an outdated report. We have documented erosion or sediment conditions in all reaches of Regnart Creek from East Estates Drive to Pacifica Drive. The banks in these reaches are unstable. As mentioned earlier, the majority of the study area has significant erosion/damage/undercutting and minor repairs are needed. There is also a handful of areas where a larger repair is needed."*

**Here is an excerpt from meeting minutes dated Nov 28, 2017 between VW and City of Cupertino:**

<https://www.cupertino.org/home/showdocument?id=23498>

*"2. Erosion of the creek has caused incising of the creek bank."*

**Here is an excerpt from meeting minutes dated Apr 4th, 2018 between VW and City of Cupertino:**

*"2. SCVWD opposes railing as it restricts maintenance and contributes to bank instability and erosion.*

*3. Slope instability and susceptibility to erosion increase as bank slopes increase. "*

**Here is an excerpt from meeting minutes dated Jul 11th 2018 between VW and City of Cupertino:**

*"Removable split railing is proposed along the edge of the trail, at least 2' from top of bank to allow for SCVWD maintenance and to not contribute to slope failures of creek bank."*

Multiple times since November 2017, VW had raised the issue of erosion, creek bank being unstable and slope failures and railings must be at least 2 feet from top o

However the attached design shown on April 24th, 2019 illustrates railings located at 3 inches and 6 inches from edge of the creek bank. How can you even locate 3 inches from an uneven creek bank? Is this a sound engineering practice when this is an upstream creek and the erosion continues due to high flow of water?

**Here is an excerpt from Regnart Creek Feasibility Study:** *"In the event that creek side railings needs to be temporarily removed to allow SCVWD to perform maintenance work or construction, the City will initiate trail closures and railing removals within 24 hours of notification as to not impede SCVWD from performing work."*

Will the VW have emergency and non emergency notification systems in place to notify the City of Cupertino for emergency trail closures and to remove railings for emergency and routine maintenance. Will the attached design satisfy these needs?

**Has the VW reviewed and accepted the attached designs before the consultant presented to the residents of Cupertino?** As noted, many issues have been raised by VW since 2017, are all these issues been addressed in the design?

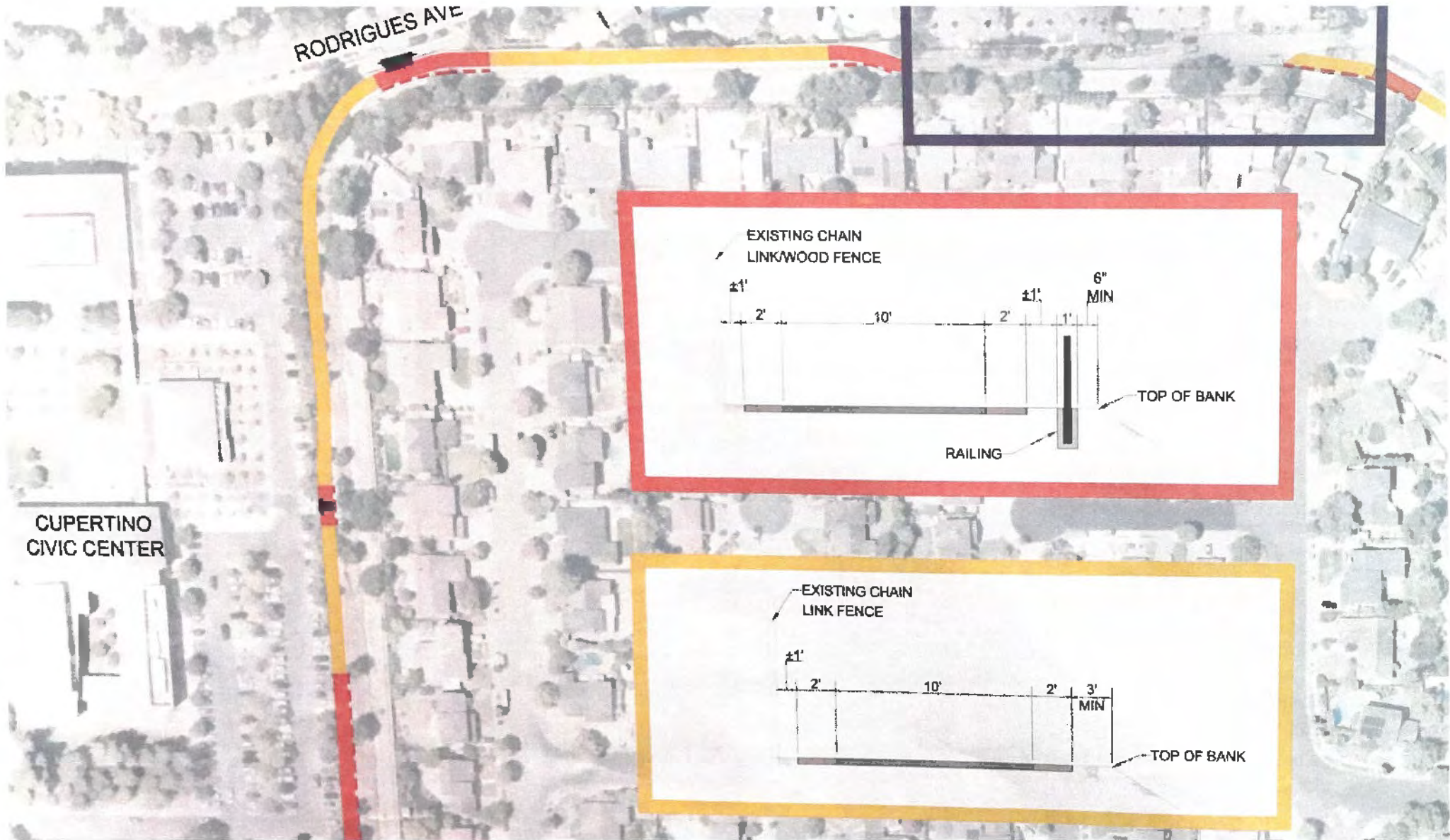
I appreciate your reply in this regard.

Thanks,  
Ilango Ganga  
Cupertino Resident

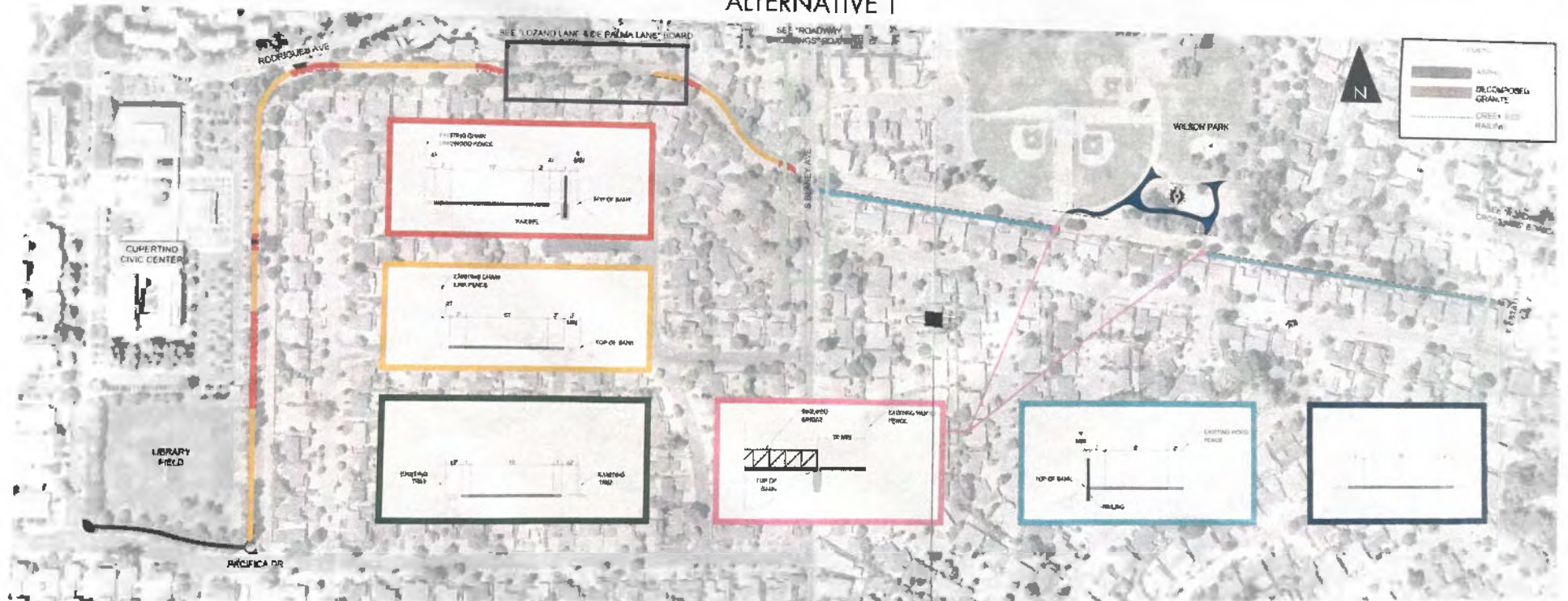








# REGNART CREEK TRAIL ALTERNATIVE 1





File: 33661  
Regnart Creek

August 21, 2018

Ms. Jennifer Chu PE  
Associate Civil Engineer  
City of Cupertino  
Public Works Department  
10300 Torre Avenue  
Cupertino, CA 95014

Re: Comments on Regnart Creek Trail Feasibility Study

Dear Ms. Chu,

Santa Clara Valley Water District (District) staff has reviewed the administrative draft of the Regnart Creek Trail Feasibility Study (Study) received on August 3, 2018. The District has identified the portion of Regnart Creek between East Estates Drive to Pacifica Drive (the feasibility study limits) as either showing signs of deterioration and in a "monitoring" mode and/or in need of minor maintenance or in such a state of degradation that a more significant maintenance project is required, with the most seriously degraded areas located between Wilson Park and Brittany Court. Consequently, the District has concerns that the Study analysis does not include sufficient deference or consideration to the needs and requirements of the District for performing flood protection operations and maintenance work, including cost increases to District operations associated with each alternative, in its ranking of feasible alternatives where those alternatives include reaches located on District right of way. The District has the following specific comments on the subject document and requests that these issues be addressed prior to final adoption of the feasibility study.

- 1) **Page 3, "Trail Access":** Please note that District access roads have limited space for amenities such as informational boards, seating, etc. This section should specify that trailhead amenities may be provided where they do not conflict with or reduce the District's existing maintenance access.
- 2) **Page 4, Table 1.3:** Alternative 1 is the preferred alternative but has the most adverse impacts to the District's maintenance access and operations. Alternatives 4 or 5 will have the least impact to the District's maintenance access and operations, followed by Alternatives 2, 3 and then 1 (most impactful).
- 3) **Pages 7 and 11:** Designating trails as transportation corridors can be a problem for the District when considering future uses of the right of way for District purposes. It confers a duty onto the District, through CEQA, to mitigate for any loss of or adverse impacts to the transportation corridor, in addition to any lost recreational use. Any future joint use agreement with the City for portions of the trail located on District right of way will provide that the City be responsible for trail closures, trail detour routes, signs, and

*Our mission is to provide Silicon Valley safe, clean water for a healthy life, environment, and economy.*

maps, and any CEQA documentation and mitigation required to implement the trail closures, when needed to allow the District to perform its flood protection work.

- 4) Page 8, Agencies and Stakeholders: The ingress-egress rights of PG&E and AT&T should be verified through actual title documentation.
- 5) Page 14, Regnart Creek Right-of-Way:
  - a. The Study states that our maintenance road varies from 12 to 25'. District as-builts show the maintenance road widths in this reach are mainly between 10 feet and 15 feet; however, this width has been reduced in many areas due to ongoing erosion/deterioration. The document should be revised to reflect this information.
  - b. City responsibilities will be outlined in any future joint use agreement with the District and will include responsibilities mentioned in our comment no. 3, above.
- 6) Page 16, Watershed and Creek Conditions: The feasibility study states the channel has no erosion. The information provided appears to have been taken from an outdated report. We have documented erosion or sediment conditions in all reaches of Regnart Creek from East Estates Drive to Pacifica Drive. The banks in these reaches are unstable. As mentioned earlier, the majority of the study area has significant erosion/damage/undercutting and minor repairs are needed. There are also a handful of areas where a larger repair is needed. This section of the study needs to be updated to reflect the current conditions along Regnart Creek where the trail is proposed.
- 7) Page 22, Available Right-of-Way: See comment no. 5a, above.
- 8) Page 25, Trail Design and Construction Practices:
  - a. The text should clarify that the District does not have allowable trail tread width standards—perhaps a different agency should be referenced.
  - b. The District does specify that trails should be able to accommodate fully loaded maintenance equipment and any damage to the trail will be City responsibility.
- 9) Page 25, Trail Closures: This section should clearly specify that the City will take responsibility for trail closures when needed for District flood protection maintenance purposes.
- 10) Page 25, Private Access to Public Trails: This section should be revised to reflect that the District does not allow or permit private access to public trails. All access points must be public access points controlled by the City.
- 11) Page 26, Trail Monitoring and Maintenance:
  - a. This section refers to "managing agencies." This section should be revised to reflect that the City is the single managing agency for the trail.
  - b. Maintenance and inspection criteria that the City will utilize should be specified.
  - c. The Study states that, "Corrective work for drainage or erosion problem shall be performed within a reasonable period of time." The Study should specify that the City will prioritize and implement immediate repairs on District right of way where problems are impacting Regnart Creek or maintenance activities.
- 12) Page 27, Public Outreach: The District would like to be invited to participate in future outreach efforts so that we can be aware of community concerns related to the proposed use of our right of way and the City's plans for addressing those concerns.
- 13) Pages 34 thru 38: As mentioned in comment #2, Alternative 1 would be most impactful to the District's operation and maintenance activities. It will increase maintenance costs on any work we do in this area, and the bridges may not be feasible without more

detailed information on how their construction will affect our maintenance access. Additionally, it has been our experience that pedestrian bridge abutments cannot usually be constructed without removing the adjacent creek bank, which will require regulatory approvals.

**14) Page 39, Creek Bridges:**

- a. See comment no. 13. Bridges reduce the width of maintenance roads, as does the addition of fill and fencing. The District will still need access around the bridges with vehicles throughout the year. This section should include actual cross sections on this page at the most restrictive pinch points to show how the existing maintenance road access width will be impacted.
- b. For removable bridges, the Study should specify how quickly the City will respond to requests to remove their bridges when requested by the District and provide a description of the public noticing that the City will perform for its removal/closure.

**15) Pages 40 and 41, Figures 6.8, 6.11 and 6.12:** Railing will not be allowed along the top of bank, unless it is outside District right of way as it impedes our ability to access the channel from the top of bank.

**16) Page 42, Alternatives Discontinued from Further Evaluation:** The Study states that box culvert and cantilever designs and reduction in road width from fence posts weren't selected because they were unacceptable to the District, or the District was unwilling to accept them, or they were unfavorable to the District. The language should be changed to indicate that these alternatives were discontinued since they would cause erosion, affect seasonal wetlands, and restrict District maintenance activities required for flood protection. The box culvert and cantilever designs were not selected based on sound engineering principles and do not represent the District's opinion.

**17) Page 44, Trail Heads:** Trailhead features should not limit ability for the District's maintenance equipment to enter and leave maintenance roads.

**18) Page 45, Figure 6.16:** Planting and decorative pavement at entrances are subject to damage and may be in the way of maintenance activities.

**19) Page 47, Security and Safety:**

- a. Safety railing and features make maintenance and inspection of District facilities difficult. Most bank slopes are steeper than 3:1. At 3:1, no fencing is required. A fence 2 feet from top of bank reduces usable space understanding that a vehicle needs more than 8' +/- width of the vehicle when there are constraints/wall on either side. Additionally, secondary screening fences will take another 18 inches or so, further reducing the width of the maintenance road.
- b. Removable fencing is also a lot of work and setting the fencing 2 feet back from the top of bank will reduce the District's maintenance footprint to 10 feet in some places which is not enough room for maintenance equipment.

**20) Pages 51 thru 53:** The biggest cost to the District from the proposed alternatives is the cost of all additional measures that come with maintenance on a pedestrian corridor. It limits when and how we inspect our facilities, it increases public frustration with the District when facilities must be closed, and increases labor hours to work around additional features and facilities (bridges, railing, trailheads, etc.).

Ms. Jennifer Chu  
Page 4  
August 21, 2018

21) Page 57. Trail Surfacing Evaluation and Recommendation: Porous pavement must be designed to withstand maintenance vehicle loads, and any swale/drainage designs cannot restrict maintenance path width.

22) Page 59. Security Measure Evaluation & Recommendation and Railing Evaluation & Recommendation

- a. Suggest City staff assess sheriff and police availability for the recommended patrols and seek commitment through an agreement with police that they can provide this level of support. We have found, county wide, that Police Departments are strapped for resources and cannot provide consistent patrolling.
- b. The Study states that removable fencing /posts is consistent with many creekside trails. There are few Santa Clara County trails that have top of bank fencing. This is a significant impact to the District which must be addressed. The time to remove the railings adds significant costs to creek maintenance when the District has limited regulatory window of time each season to perform its maintenance activities.

We appreciate the opportunity to provide comments. I may be reached at (408) 630-2731, if you have any questions.

Sincerely,



Usha Chatwani, P.E.  
Engineering Unit Manager (Permit Authority)  
Community Projects Review Unit

cc: M. Richardson, S. Tippetts, Y. Arroyo, U. Chatwani, S. Dharaskar, C. Houston,  
J. Codlaine, C. Pilson, C. Grande





# Santa Clara Valley Water District

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File No.: 19-0626

Agenda Date: 7/15/2019

Item No.: 5.3.

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## COMMITTEE AGENDA MEMORANDUM

### Environmental and Water Resources Committee

#### SUBJECT:

Update from Environmental and Water Resources Committee's Working Groups.

#### RECOMMENDATION:

Provide comments to the Board on implementation of District mission applicable to working groups' recommendations.

#### SUMMARY:

At the Committee's January 2019 meeting, the Committee would like to see the working groups more aligned with the issues and policies that the Board of Directors has on their work plan and calendar for this year.

The Board approved the Committee's request to keep the Committee informed of the working groups' activities and results.

This will be a standing agenda item.

#### BACKGROUND:

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 Board 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, Board 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 Board's 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: 2019 Working Groups Spreadsheet

UNCLASSIFIED MANAGER:

Michele King, 408-630-2711

## 2019 EWRC Independent Working Groups

Name	1. Fisheries and Aquatic Habitat Collaboration Effort (FAHCE)	2. Water Storage Opportunities	3. California Delta Conveyance (formerly WaterFix)	4. Recycled and Purified Water	5. Anderson Dam Seismic Retrofit Project	6. Coyote Creek Emergency Action Plans and Flood Protection	7. Coordinated Approach to Environmental Stewardship	8. Advance Diversity and Inclusion Efforts	9. Groundwater Production Charges, Open Space Credit	10. Water Supply Master Plan 2040	11. Climate Change Adaptation and Carbon Neutrality by 2020 Program	Total Groups Joined
Bonnie Bamberg										1	1	2
John Bourgeois												0
Tess Byler		1	1									2
Hon. Dean Chu		1	1	1						1		4
Charles Ice				1		1			1			3
Stephen A. Jordan		1										1
Arthur M. Keller, Ph.D.			1							1	1	3
Hon. Patrick S. Kwok					1							1
Loren B. Lewis												0
Bob Levy						1						1
Tara Martin-Milius												0
Sachihiko Michitaka			1									1
Rev. Jethroe Moore II			1					1				2
Rita Norton			1								1	2
Marc Rauser												0
Elizabeth Sarmiento	1		1									2
Charles Taylor												0
<b>Total Members</b>	1	3	7	2	1	2	0	1	1	3	3	24

Lead

See 2019 EWRC Independent Working Group Guidelines

Members should limit the number of working groups they participate in because of possible Brown Act Violations (2-3 groups only)

Please Note: You will be sharing your phone number and email address with the other members when signing up.

When planning meetings, the Group Chair (Lead) should contact Glenna via email with meeting date/time and location and how many members are expected to attend.

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# Santa Clara Valley Water District

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File No.: 19-0627

Agenda Date: 7/15/2019

Item No.: 5.4.

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## COMMITTEE AGENDA MEMORANDUM

### Environmental and Water Resources Committee

#### SUBJECT:

Review Environmental and Water Resources Committee (EWRC) Work Plan, the Outcomes of Board Action of Committee Requests; and the Committee's Next Meeting Agenda.

#### RECOMMENDATION:

Review the EWRC work plan to guide the commission'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 agendaized at each meeting as accomplishments are updated and to review additional work plan assignments by the Board.

Special discussion from Director Nai Hsueh from the Board Policy and Planning Committee regarding aligning the EWRC's work plan to the Board's 2019 Work Plan.

#### 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: EWRC 2019 Work Plan

Attachment 2: EWRC October 21, 2019, Draft Agenda

**UNCLASSIFIED MANAGER:**

Michele King, 408-630-2711



## 2019 Work Plan: Environmental and Water Resources Committee

Update: June 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	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
1	Election of Chair and Vice Chair for 2019	January 28	<ul style="list-style-type: none"> <li>Committee Elects Chair and Vice Chair for 2019. <b>(Action)</b></li> </ul>	<b>Accomplished January 28, 2019:</b> The Committee elected Ms. Tess Byler as 2019 Committee Chair and Dr. Arthur L. Keller, as 2019 Committee Vice Chair.
2	Annual Accomplishments Report	January 28	<ul style="list-style-type: none"> <li>Review and approve 2018 Accomplishments Report for presentation to the Board. <b>(Action)</b></li> <li>Provide comments to the Board, as necessary.</li> </ul>	<b>Accomplished January 28, 2019:</b> The Committee reviewed and approved the 2018 Accomplishments Report for presentation to the Board.  <i>The Board received the Committee's presentation at its March 26, 2019, meeting.</i>
3	Review and Comment to the Board on the Fiscal Year 2019-20 Preliminary Groundwater Production Charges.	January 28	<ul style="list-style-type: none"> <li>Review and Comment to the Board on the Fiscal Year 2019-20 Preliminary Groundwater Production Charges. <b>(Action)</b></li> </ul>	<b>Accomplished January 28, 2019:</b> The Committee reviewed and comment to the Board on the Fiscal Year 2019-20 Preliminary Groundwater Production Charges, however, took no action.
4	Open Space Credit	January 28 April 15	<ul style="list-style-type: none"> <li>Receive information on Open Space Credit <b>(Action)</b>.</li> </ul>	<b>Accomplished January 28, 2019:</b> The Committee received information on the Open Space Credit Policy with the following action: <ul style="list-style-type: none"> <li>The Committee approved having the Board consider keeping the Agricultural rate as low as possible and equitable while finding other sources. If it is not equitable then</li> </ul>

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

Attachment 1

Page 1 of 9

# 2019 Work Plan: Environmental and Water Resources Committee

Update: June 2019

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
				<p>the larger farmers should pay the higher rates.</p> <ul style="list-style-type: none"> <li>The Committee approved having the Board consider having staff analyze and propose 2 pathways 1. ½% increase every year over 8 years up to 10% and 2. Keep staff's recommendation with an added administrative task and associated costs with the co-opping of smaller farms that don't meet the acreage qualification of the Williamson Act/Conservation Easement and come up with best management practices and water conservation measures.</li> </ul>
5	Status of Working Groups	January 28 April 15 July 15 October 21	<ul style="list-style-type: none"> <li>Receive updates on the status of the working groups. <b>(Action)</b></li> <li>Submit requests to the Board, as appropriate.</li> </ul>	<p><b>Accomplished January 28, 2019:</b> The Committee received information on the status of the working groups and took no action, however, Chair Tess Byler will update the guidelines to align them to the Board's 2019 work plan.</p> <p><b>Accomplished April 15, 2019:</b> The Committee had no status reports for any working group and took no action.</p>
6	Review of Environmental and Water Resources Committee Work Plan, the Outcomes of Board Action of Committee Requests and the Committee's Next Meeting Agenda	January 28 April 15 July 15 October 21	<ul style="list-style-type: none"> <li>Receive and review the 2019 Committee work plan. <b>(Action)</b></li> <li>Submit requests to the Board, as appropriate.</li> </ul>	<p><b>Accomplished January 28, 2019:</b> The Committee reviewed the 2019 work plan and took the following action:</p> <ul style="list-style-type: none"> <li><i>The Committee agreed to add update on CA WaterFix.</i></li> </ul>

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

Attachment 1

Page 2 of 9

# 2019 Work Plan: Environmental and Water Resources Committee

Update: June 2019

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
				<b>Accomplished April 15, 2019:</b> The Committee reviewed the 2019 work plan and took the following action: <ul style="list-style-type: none"> <li>The Committee approved changing work plan item #9 (Water Supply Master Plan) to an action item and add Bay Delta Plan Update to the working plan.</li> </ul>
7	Review and Comment to the Board on the Fiscal Year 2020 Proposed Groundwater Production Charges	April 15	<ul style="list-style-type: none"> <li>Review and comment to the Board on the Fiscal Year 2020 Proposed Groundwater Production Charges. <b>(Action)</b></li> <li>Provide comments to the Board, as necessary.</li> </ul>	<b>Accomplished April 15, 2019:</b> The Committee reviewed and commented to the Board on the Fiscal Year 2020 Proposed Groundwater Production Charges with the following action: The Committee approved that the Board of Directors consider the Committee's recommendation to approve the proposed groundwater production charge rates: <ol style="list-style-type: none"> <li>Staff proposes a 6.6% increase in the North County (Zone W-2) Municipal and Industrial groundwater production charge from \$1,289/AF to \$1,374/AF. The proposal equates to a monthly bill increase for the average household of \$2.93 or about 10 cents a day and,</li> <li>In the South County (Zone W-5), staff proposes a 6.9% increase in the M&amp;I groundwater production charge from \$450/AF to \$481/AF. The proposal equates to a monthly bill increase for the average household of \$1.07 or about 4 cents per day.</li> </ol>

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# 2019 Work Plan: Environmental and Water Resources Committee

Update: June 2019

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
				1. The Committee approved that the Board of Directors consider the Committee's approval of having staff supply additional financial data to the Committee for next year's analysis of groundwater production charges. Giving the Committee sources and use of funds/revenue with a breakdown and clarity of where the funds come from North vs South County costs so the Committee can make an informed decision on the rates in the future.
8	<u>Standing Items Reports/Fiscal Year 2019:</u> 1. Finalize the Fisheries and Aquatic Habitat Collaboration Effort (FAHCE) (Report from the FAHCE Ad Hoc Committee) 2. Actively Pursue Efforts to Increase Water Storage Opportunities (Report from the Water Storage Exploratory Committee) 3. Actively Participate in Decisions Regarding the California WaterFix (Report from EWRC Board Representative) 4. Advance Recycled and Purified Water Efforts with the City of San Jose and Other Agencies (Report from the Recycled Water Committee) 5. Advance Anderson Dam Seismic Retrofit Project (Report from the Capital Improvement Program Committee) 6. Provide for a Watershed-Wide	April 15	<ul style="list-style-type: none"> <li>Receive quarterly reports on standing items. <b>(Information)</b></li> </ul>	<b>Accomplished April 15, 2019:</b> The Committee received the standing items report and took no action.

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# 2019 Work Plan: Environmental and Water Resources Committee

Update: June 2019

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
	Regulatory Planning and Permitting Effort (Report from the Capital Improvement Program Committee) 7. Ensure Immediate Emergency Action Plans and Flood Protection are Provided for Coyote Creek (Report from the Coyote Creek Flood Risk Reduction Ad Hoc Committee) 8. Foster a Coordinated Approach to Environmental Stewardship Effort (Report from EWRC Board Representative) 9. Advance Diversity and Inclusion Efforts (Report from the Diversity and Inclusion Ad Hoc Committee)			
9	Water Supply Master Plan Update <i>See Board Priority Standing item #5</i>	July 15	<ul style="list-style-type: none"> <li>Receive an update on the Water Supply <i>(Information)</i></li> </ul>	Link to 1/18/19 Board Agenda <a href="https://scvwd.legistar.com/LegislationDetail.aspx?ID=3833245&amp;GUID=B2A7EFC8-34C3-4EF8-BF2A-FC11774B9CF1&amp;Options=ID Text Attachments &amp;Search=January+18%2c+2019">https://scvwd.legistar.com/LegislationDetail.aspx?ID=3833245&amp;GUID=B2A7EFC8-34C3-4EF8-BF2A-FC11774B9CF1&amp;Options=ID Text Attachments &amp;Search=January+18%2c+2019</a>
10	<u>Standing Items Reports Fiscal Year 2020:</u> 1. Finalize the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE). (Assigned to FAHCE) 2. Actively Pursue Efforts to Increase Water Storage Opportunities. (Assigned to Water Storage Exploratory Committee) 3. Actively Participate in Decisions Regarding the California Delta Conveyance. (Assigned to California	July 15 October 21	<ul style="list-style-type: none"> <li>Receive quarterly reports on standing items. <i>(Information)</i></li> </ul>	

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# 2019 Work Plan: Environmental and Water Resources Committee

Update: June 2019

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
	<p>Delta Conveyance Working Group)</p> <p>4. Lead Recycled and Purified Water Efforts with the City of San Jose and Other Agencies. (Assigned to Recycled Water Committee)</p> <p>5. Engage and educate the community, local elected officials and staff on future water supply strategies in Santa Clara County. (Assigned to Water Conservation and Demand Management Committee)</p> <p>6. Advance Anderson Dam Seismic Retrofit Project. (Assigned to Capital Improvement Program Committee)</p> <p>7. Provide for a Watershed-Wide Regulatory Planning and Permitting Effort. (Assigned to FAHCE)</p> <p>8. Attain net positive impact on the environment when implementing Valley Water's mission.</p> <p>9. Promote the protection of creeks, bay, and other aquatic ecosystems from threats of pollution and degradation (E-4.1.3). (Assigned to Homeless Encampment Ad Hoc Committee)</p> <p>10. Advance Diversity and Inclusion Efforts. Carry forward to FY20. (Assigned to Diversity and Inclusion Ad Hoc Committee)</p> <p>11. Understand if the level of services</p>			

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# 2019 Work Plan: Environmental and Water Resources Committee

Update: June 2019

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
	Valley Water provides to the public are reasonable and the costs of providing services are affordable and effective. (Assigned to Revenue Working Group)			
11	<b>One Water Plan Update</b> <i>See Board Priority Standing item #8</i>	October 21	<ul style="list-style-type: none"> <li>Receive information on One Water Plan. <b>(Information)</b></li> <li>Provide comments to the Board, as necessary.</li> </ul>	
12	<b>Pacheco Reservoir Expansion Project Update</b>	<i>See Board Priority Standing item #2</i>	<ul style="list-style-type: none"> <li>Receive an update on the Pacheco Reservoir Expansion Project <b>(Information)</b></li> </ul>	
13	<b>Receive Draft FAHCE EIR</b>	<i>See Board Priority Standing item #1</i>	<ul style="list-style-type: none"> <li>Receive the draft FAHCE EIR when completed.</li> </ul>	
14	<b>Discussion on the District's Water Resources Protection Ordinance</b>	TBD	<ul style="list-style-type: none"> <li>Discuss the District's Water Resources Protection Ordinance. <b>(Action)</b></li> <li>Provide comments to the Board, as necessary.</li> </ul>	
15	<b>Climate Change Mitigation – Carbon Neutrality by 2020 Program Update/ Energy Use Policy Discussion</b>	Link to 1/22/19 Board Agenda	<ul style="list-style-type: none"> <li>Receive information on climate change mitigation – carbon neutrality by 2020 program update. <b>(Action)</b></li> <li>Provide comments to the Board, as necessary.</li> </ul>	<a href="https://scvwd.legistar.com/LegislationDetail.aspx?ID=3834299&amp;GUID=3DE58FF2-BB43-4305-81C4-916B18DBE118&amp;Options=&amp;Search=">https://scvwd.legistar.com/LegislationDetail.aspx?ID=3834299&amp;GUID=3DE58FF2-BB43-4305-81C4-916B18DBE118&amp;Options=&amp;Search=</a>

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# 2019 Work Plan: Environmental and Water Resources Committee

Update: June 2019

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
16	Receive information on Climate Change And the District's policy response regarding flooding, sea level rise, wildfires.	Link to 6/12/18 Board Agenda	<ul style="list-style-type: none"> <li>Receive information on climate change and the District's policy response regarding flooding, sea level rise, wildfires. <b>(Action)</b></li> <li>Provide comments to the Board, as necessary.</li> </ul>	<a href="https://scvwd.legistar.com/LegislationDetail.aspx?ID=3517801&amp;GUID=89955CFD-91E5-4971-8536-0972DED95AE7&amp;Options=&amp;Search=">https://scvwd.legistar.com/LegislationDetail.aspx?ID=3517801&amp;GUID=89955CFD-91E5-4971-8536-0972DED95AE7&amp;Options=&amp;Search=</a>
17	Climate Change and Sea Level Rise Adaptation – Water Supply, Flood Protection Ecosystems Protection	Link to 6/12/18 Board Agenda	<ul style="list-style-type: none"> <li>Receive information on climate change and sea level rise adaptation, Water Supply, Flood Protection and Ecosystems Protection. <b>(Action)</b></li> <li>Provide comments to the Board, as necessary.</li> </ul>	<a href="https://scvwd.legistar.com/LegislationDetail.aspx?ID=3517801&amp;GUID=89955CFD-91E5-4971-8536-0972DED95AE7&amp;Options=&amp;Search=">https://scvwd.legistar.com/LegislationDetail.aspx?ID=3517801&amp;GUID=89955CFD-91E5-4971-8536-0972DED95AE7&amp;Options=&amp;Search=</a>
18	Bay Delta Plan Update	TBD	<ul style="list-style-type: none"> <li>Receive an update on the Bay Delta Plan. <b>(Action)</b></li> <li>Provide comments to the Board, as necessary.</li> <li></li> </ul>	<i>The Committee requested this item; however, it must have a definite nexus to the Committee's charge and Board's priorities along with a scope and desired outcome.</i>
19	Update on Flood Protection Management Plan	Remove	<ul style="list-style-type: none"> <li>Receive information on the Flood Protection Management Plan. <b>(Action)</b></li> <li>Provide comments to the Board, as necessary.</li> </ul>	<i>The Committee may request this item; however, it must have a definite nexus to the Committee's charge and Board's priorities along with a scope and desired outcome.</i>
20	Discussion on Environmental Issues- Endangered Species, Drought Environmental Impacts	Remove	<ul style="list-style-type: none"> <li>Discuss the environmental issues- endangered species, drought environmental impacts. <b>(Action)</b></li> <li>Provide comments to the Board, as</li> </ul>	<i>The Committee may request this item; however, it must have a definite nexus to the Committee's charge and Board's priorities along with a scope and desired outcome.</i>

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## 2019 Work Plan: Environmental and Water Resources Committee

Update: June 2019

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
			necessary.	
21	District's environmental audit of disposable (paper and plastic ware) products pertaining to their food services.	Remove	<ul style="list-style-type: none"> <li>Receive information of the District's environmental audit of disposable (paperware) products pertaining to their food services. <b>(Information)</b></li> <li>Provide comments to the Board, as necessary.</li> </ul>	<i>The Committee may request this item; however, it must have a definite nexus to the Committee's charge and Board's priorities along with a scope and desired outcome.</i>
22	Receive update information on Salmonid	Remove	<ul style="list-style-type: none"> <li>Receive update information on Salmonid. <b>(Action)</b></li> </ul>	<i>The Committee may request this item; however, it must have a definite nexus to the Committee's charge and Board's priorities along with a scope and desired outcome.</i>

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**Committee Officers**

Tess Byler, Committee Chair  
Arthur M. Keller, Committee Vice Chair

**Board Representative**

Tony Estremera, Board Representative  
Nai Hsueh, Board Alternate  
Linda J. LeZotte, Board Representative

**DRAFT AGENDA****ENVIRONMENTAL AND WATER RESOURCES COMMITTEE**

**MONDAY, OCTOBER 21, 2019**

**6:00 p.m. – 8:00 p.m.**

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

**Time Certain:**

**6:00 p.m. 1.**

**Call to Order/Roll Call**

**2. Time Open for Public Comment on Any Item Not on 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 – July 15, 2019, meeting

**Standing Items Reports**

**4. *This item allows the Committee to receive verbal or written updates and discuss the Board's Fiscal Year 2020 Work Plan Strategies. These items are generally informational; however, the Committee may request additional information and/or provide collective input to the assigned Board Committee.***

1. Finalize the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE). (Assigned to FAHCE)
2. Actively Pursue Efforts to Increase Water Storage Opportunities. (Assigned to Water Storage Exploratory Committee)
3. Actively Participate in Decisions Regarding the California Delta Conveyance. (Assigned to California Delta Conveyance Working Group)
4. Lead Recycled and Purified Water Efforts with the City of San Jose and Other Agencies. (Assigned to Recycled Water Committee)
5. Engage and educate the community, local elected officials and staff on future water supply strategies in Santa Clara County. (Assigned to Water Conservation and Demand Management Committee)
6. Advance Anderson Dam Seismic Retrofit Project. (Assigned to Capital Improvement Program Committee)
7. Provide for a Watershed-Wide Regulatory Planning and Permitting Effort. (Assigned to FAHCE)
8. Attain net positive impact on the environment when implementing Valley Water's mission.
9. Promote the protection of creeks, bay, and other aquatic ecosystems from threats of

pollution and degradation (E-4.1.3). (Assigned to Homeless Encampment Ad Hoc Committee)

10. Advance Diversity and Inclusion Efforts. Carry forward to FY20. (Assigned to Diversity and Inclusion Ad Hoc Committee)
11. Understand if the level of services Valley Water provides to the public are reasonable and the costs of providing services are affordable and effective. (Assigned to Revenue Working Group)

5. **Action Items**

5.1 Update on the One Water Plan (Brian Mendenhall)

**Recommendation: Receive an updated presentation on the Water Supply Master Plan and provide comment to the Board as necessary.**

5.2 Update from Working Groups (Committee Chair)

**Recommendation: Provide comment to the Board in the implementation of the District's mission as it applies to the working groups' recommendations.**

5.3 Review Environmental and Water Resources Committee Work Plan, the Outcomes of Board Action of Committee Requests and the Committee's Next Meeting Agenda (Committee Chair)

**Recommendation: Review the Board-approved Committee work plan to guide the committee's discussions regarding policy alternatives and implications for Board deliberation.**

6. **Clerk Review and Clarification of Committee Requests to the Board**

*This is a review of the Committee's Requests, to the Board (from Item 5). The Committee may also request that the Board approve future agenda items for Committee discussion.*

7. **Reports**

*Directors, Managers, and Committee members may make brief reports and/or announcements on their activities. Unless a subject is specifically listed on the agenda, the Report is for information only and not discussion or decision. Questions for clarification are permitted.*

7.1 Director's Report

7.2 Manager's Report

7.3 Committee Member Reports

7.4 Links to Informational Reports

8. **Adjourn:** Adjourn to next regularly scheduled meeting at 6:00 p.m., **January 27, 2020**, in the Headquarters Building Boardroom, 5700 Almaden Expressway, San Jose, CA 95118

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 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.

The Santa Clara Valley Water District will make reasonable efforts to accommodate persons with disabilities wishing to attend committee meetings. Please advise the Clerk of the Board office of any special needs by calling 1-408-630-2277.



*Environmental and Water Resources Committee's Purpose and Duties*

The Environmental and Water Resources Committee of the Santa Clara Valley Water District is established to assist the Board of Directors (Board) with policies pertaining to water supply, flood protection and environmental stewardship.

The specific duties are:

- Prepare policy alternatives;
- Provide comment on activities in the implementation of the District's mission; and
- Produce and present to the Board an Annual Accomplishments Report that provides a synopsis of the annual discussions and actions.

In carrying out these duties, Committee members bring to the District their respective expertise and the interests of the communities they represent. In addition, Committees may help the Board produce the link between the District and the public through information sharing to the communities they represent.

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# Handouts

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DRAFT

JUNE 2019



# Water Supply Master Plan 2040



**Valley Water**

Clean Water • Healthy Environment • Flood Protection

# Santa Clara Valley Water District

## Draft Water Supply Master Plan 2040

---

### **Prepared by:**

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### **Under the Direction of:**

Jerry De La Piedra, Assistant Operating Officer  
Garth Hall, Deputy Operating Officer  
Nina Hawk, Chief Operating Officer  
Norma J. Camacho, Chief Executive Officer

**DRAFT June 2019**

### **BOARD OF DIRECTORS**

---

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Gary Kremen

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District 6  
District 7



## **Acknowledgments**

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David Mitchell, M.Cubed

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Katherine Oven  
Miguel Silva  
Medi Sinaki, PE  
Xiaoyong Zhan, Ph.D.

## **Water Supply Master Plan 2040 Summary**

A reliable supply of clean water is necessary for the social, economic, and environmental well-being of Santa Clara County. This is reflected in the Santa Clara Valley Water District Act that states one of the purposes of Valley Water is “to do any and every lawful act necessary to be done that sufficient water may be available for any present or future beneficial use or uses of the lands or inhabitants within the District.” Furthermore, Board Policy states that “there is a reliable, clean water supply for current and future generations.” The Water Supply Master Plan 2040 (Master Plan) presents Valley Water’s strategy for meeting the county’s future water needs.

The Master Plan looks ahead at how our water needs and our water supply may change over the next 20 years. The population is likely to grow; aging water infrastructure must be maintained and renewed; additional regulations and land use changes may change how we use water; and climate changes are likely to alter the Sierra Nevada Mountains’ snowpack resulting in longer and more severe droughts.

The Valley Water’s Ensure Sustainability water supply strategy focuses on investments that secure our existing supplies and infrastructure, expand water conservation and reuse, and optimize our water infrastructure systems. Valley Water must secure existing supplies and facilities for future generations because they are, and will continue to be, the foundation of our water supply system. Valley Water is committed to working with the community to meet Silicon Valley’s future increases in water demand through conservation, reuse, and other drought-resilient strategies. Finally, Valley Water has opportunities to make more effective use of its existing assets.



The Master Plan is the Valley Water’s strategy for providing a reliable and sustainable future water supply for Santa Clara County and ensuring new water supply investments are effective and efficient.

The Master Plan’s Monitoring and Assessment Program (MAP) provides a mechanism for adapting to changing supply and demand conditions, climate change, regulatory and policy changes, other risks and uncertainty. Through regular monitoring of specific projects and overall conditions, Valley Water will assess whether changes to the Master Plan strategy or projects are needed. Alternative projects will be evaluated based on their impacts to the water supply reliability, costs, relationships with other projects, risks and opportunities, and stakeholder input. Any changes to the Master Plan will be reflected in the annual water rate setting process, Capital Improvement Program, and budget.

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- B. Demand Projection Methodology
- C. Model Description and Assumptions
- D. Project List
- E. Agenda Package
- F. Planning Objectives



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## 1 A Reliable Water Supply Is Important to the Community

A reliable supply of clean water is necessary for the environmental, economic, and social well-being of Santa Clara County. A safe and reliable water supply extends beyond the significant social requirements of basic health and sanitation. This extension includes economic vitality, environmental needs, agricultural requirements, social benefits, cultural expectations and requirements, and quality of life enhancements. On behalf of the community, the Santa Clara Valley Water District (Valley Water) has made significant investments to manage demands for water and develop water supplies and infrastructure to meet the county's water needs. These investments currently enable Valley Water to manage the natural variability in demands and supplies to meet the county's current needs in all but critical drought years when Valley Water requests that the community reduce their water use. However, Valley Water anticipates that the county's need for water will grow in the future.

### 1.1 Santa Clara County Needs Water for Multiple Purposes

Long-term average water use in Santa Clara County is about 350,000 acre-feet per year (AFY). This water is used for domestic, municipal, industrial, and agricultural use.<sup>1</sup> Valley Water estimates that water demand would be higher, by about 77, 000 AF in 2018, if not for the combined efforts of Valley Water and the community to conserve water. Because of Valley Water's investments in water conservation since 1992, water use in the county has remained relatively consistent despite a 25 percent increase in population over the same period (Figure 1). The various significant decreases in water use are associated with the extended droughts of 1987 to 1992, 2007 to 2009, and 2012 to 2016. Rainfall and economics also affect water use.

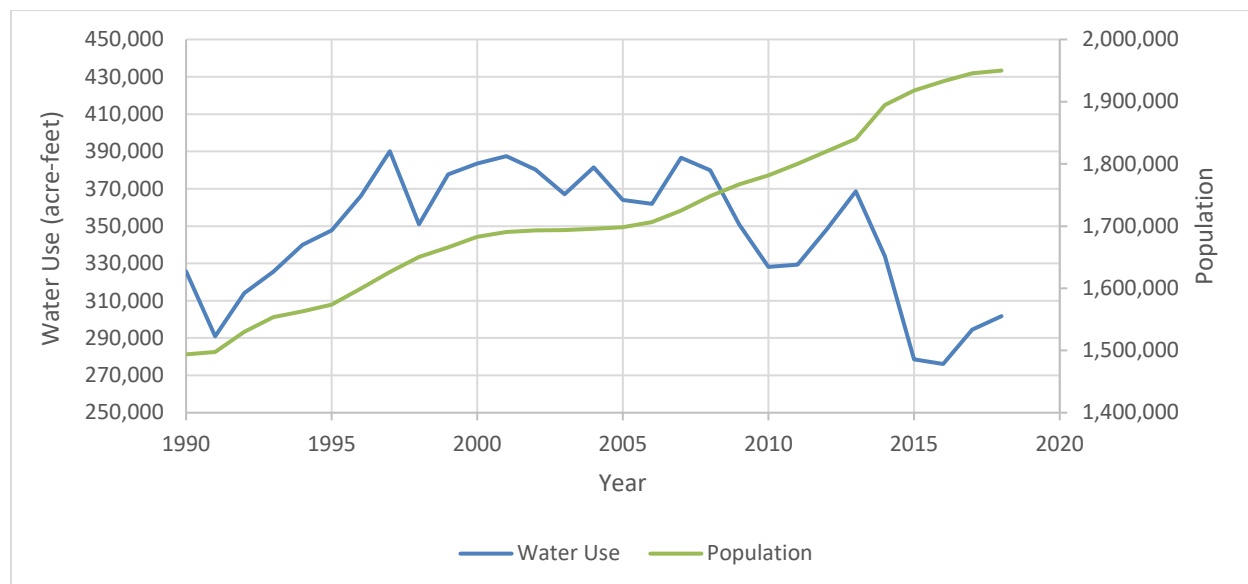
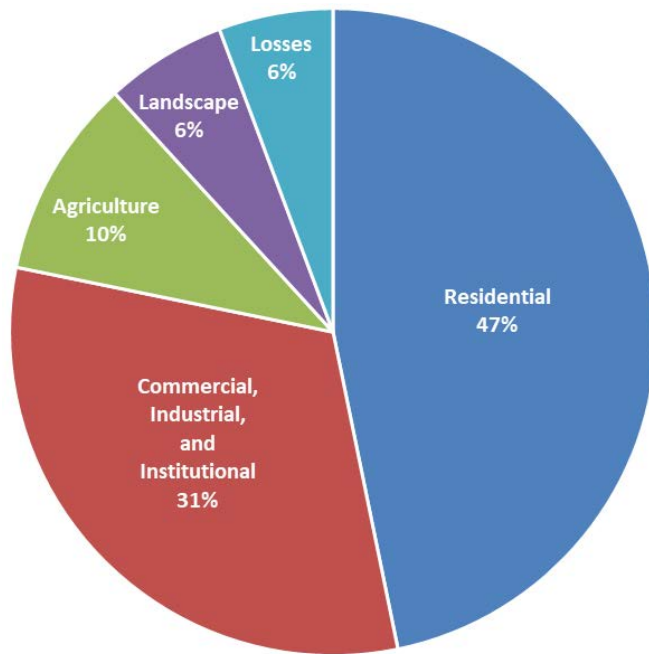


Figure 1. Historic Water Use and Population

<sup>1</sup> Environmental needs vary by year and are addressed in the supply side of Valley Water's water supply system. Environmental requirements are given priority to local water supplies over use for recharge or treatment plants.

The community uses water for several purposes, including residential, commercial, industrial, institutional, landscape irrigation, and agriculture. Figure 2 shows percentage of water use by these sectors. Residents, who need water for basic sanitation and to support their quality of life, account for almost half the water used each year in the county. Nearly one-half of residential water use is outdoors. Commerce, industry, and institutions need water for product manufacturing and delivery. Farmers need water to grow crops.



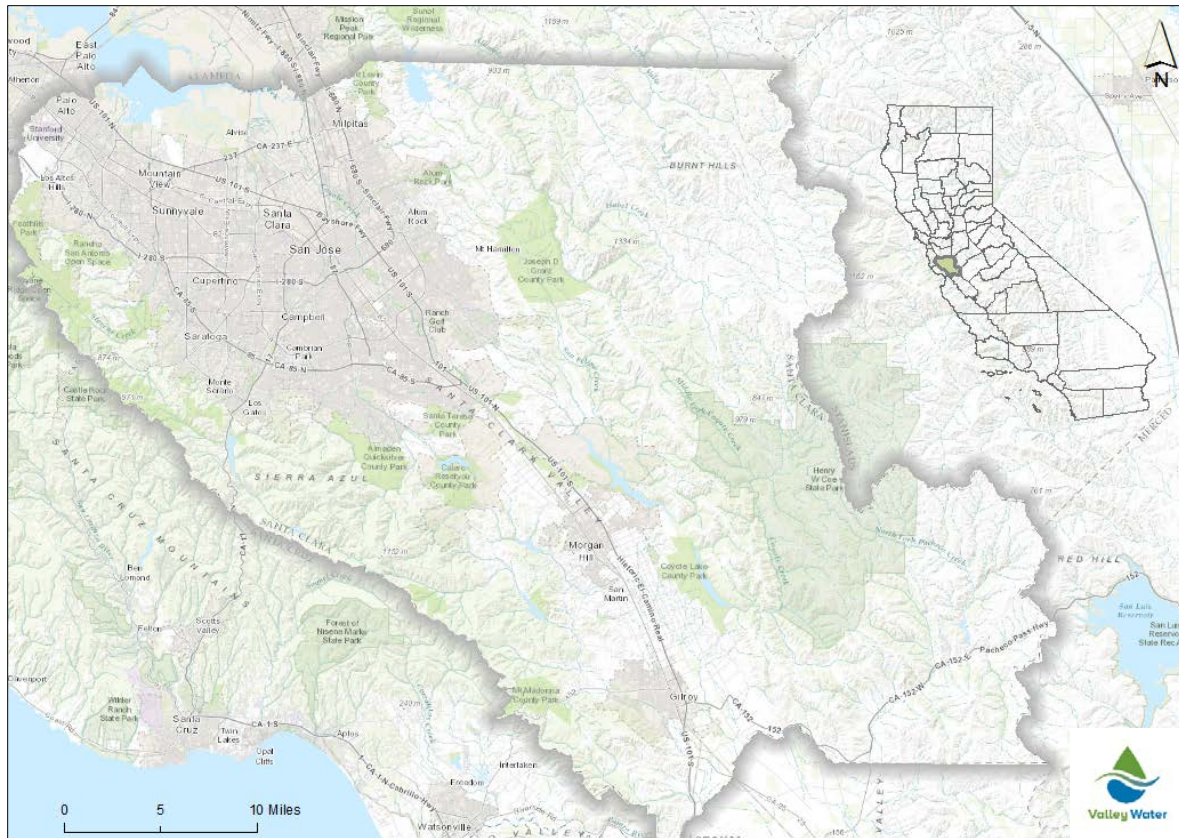
The San José-Sunnyvale-Santa Clara Metropolitan Area had a gross domestic product of over \$275 billion in 2017, the 13<sup>th</sup> highest in the nation (Bureau of Economic Analysis, 2018). Water shortages can have severe economic consequences. Shortage costs can range from about \$85 million per year for a shortage of 10 percent up to \$1.5 billion per year for a shortage of 50 percent (Appendix A, Cost Analysis Methodology). Furthermore, shortages can lead to groundwater overdraft and land subsidence, which can damage the county's infrastructure and increase flooding risks.

Figure 2. Water Use by Sector

## 1.2 Valley Water has Made Significant Investments in Water Supply Reliability

Valley Water is an independent, special district/local agency that provides wholesale water supply, groundwater management, flood protection and stream stewardship. Its service area includes all of Santa Clara County, which is located at the southern end of San Francisco Bay (Figure 3). The county encompasses approximately 1,300 square miles and has a population of about 1.9 million. Most water use occurs on the valley floor between the Santa Cruz Mountains to the west and the Diablo Range to the east. Northern Santa Clara County is home to Silicon Valley and the valley floor is highly urbanized. Southern Santa Clara County has some urban development, but much of the land use is still rural and agricultural.

Valley Water was formed in 1929 in response to groundwater overdraft and significant land subsidence. Northern Santa Clara County had experienced land subsidence from pumping more groundwater than could be replaced or replenished through rainfall. In response, Valley Water constructed six reservoirs in the 1930s to store winter rains for groundwater recharge and summer irrigation use. Four additional reservoirs were constructed in the 1950s, nearly tripling local storage to about 169,000 acre-feet (AF).



### Figure 3. Santa Clara County

Still, local supplies were insufficient to meet the county's growing population, particularly after World War II, and subsidence continued. In 1965, Valley Water began importing water from the State Water Project (SWP) for groundwater recharge and use at drinking water treatment plants. Valley Water began receiving water from the Federal Central Valley Project (CVP) in 1987. By 1970, groundwater levels recovered and land subsidence was essentially halted. The historic relationship between population growth, groundwater levels, land subsidence, and water sources is illustrated in Figure 4. These additional supply, along with investments in water conservation and recycling, have further supported and maintained groundwater level recovery.

Valley Water operates an integrated water supply system to meet demands in Santa Clara County. Current operations include 10 dams, 17 miles of raw surface water canals, five water supply diversion dams, 393 acres of groundwater recharge ponds, 91 miles of controlled in-stream recharge, 142 miles of pipelines, three drinking water treatment plants, one advanced water purification center, and three pump stations. Local surface water, SWP and CVP water imported through the Sacramento-San Joaquin River Delta (Delta):

- replenish the local groundwater subbasins, which are pumped for use by individual well owners and retail water suppliers;
- supply Valley Water’s drinking water treatment plants;
- are delivered directly to agricultural water users; and,
- help meet environmental needs.

## SANTA CLARA COUNTY GROUNDWATER AT-A-GLANCE

*a graphic representation not intended as a technical exhibit*

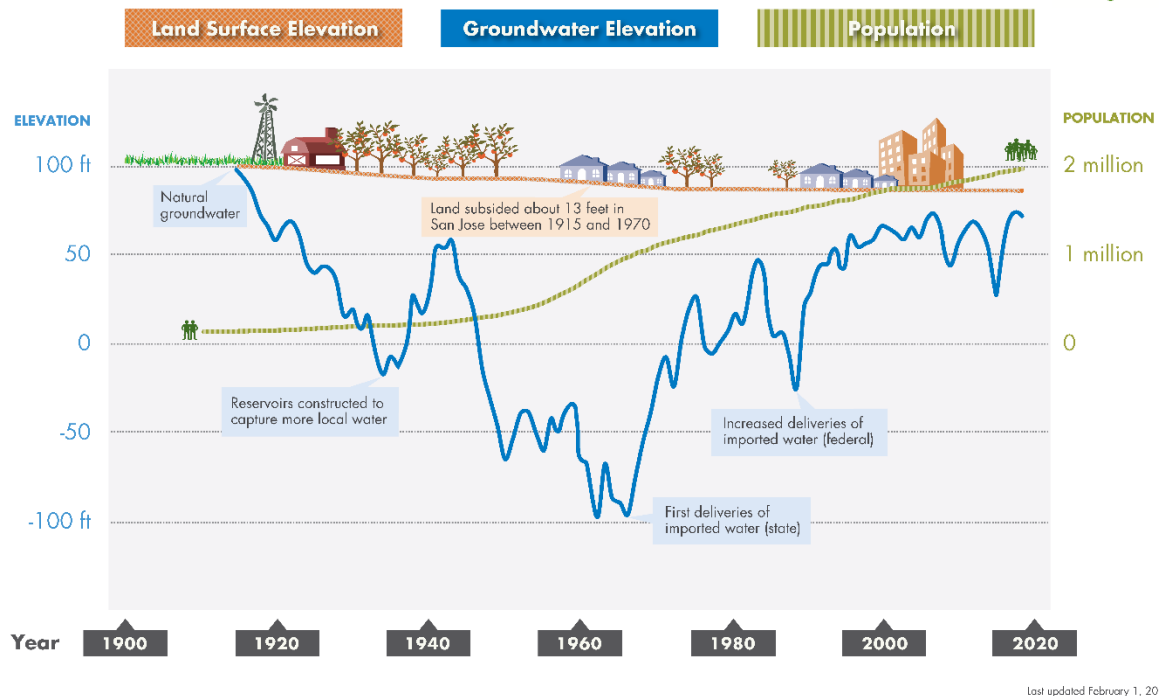


Figure 4. Relationship between Groundwater Levels, Land Subsidence, and Population

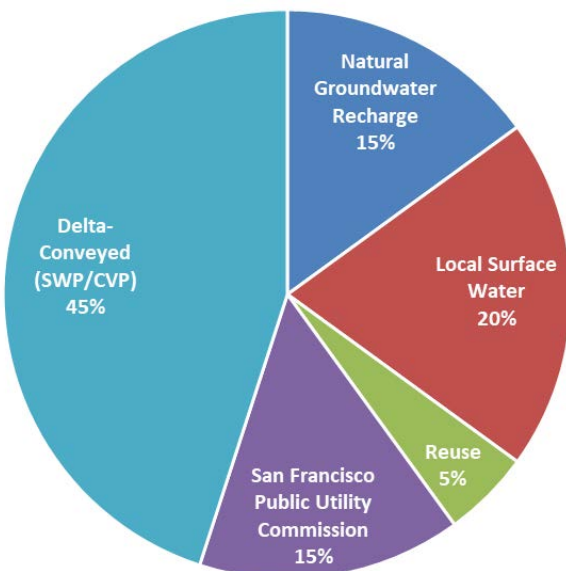


Figure 5. Valley Water Water Sources

Valley Water manages groundwater supplies in conjunction with surface water supplies. In wet and normal years, excess supplies are stored in the local groundwater basin, local and statewide reservoirs, or the Semitropic Groundwater Bank in Kern County for use in dry years. This helps Valley Water manage natural variations in rainfall and the associated changes in water supply availability.

Other agencies and organizations also contribute to water supply reliability in Santa Clara County. The San Francisco Public Utilities Commission (SFPUC) delivers water to retailers in northern Santa Clara County. Stanford University and San Jose Water Company hold their own surface water rights. All four of the county's wastewater treatment plants produce reuse water for non-

potable uses such as irrigation and cooling towers. The county's water supply, treatment, and distribution facilities are illustrated in Figure 6.

Most water used in Santa Clara County is imported from outside the county, mostly through the SWP and CVP (approximately 45 percent). Another 15 percent is delivered through SFPUC's Regional Water System. Of local supplies, about 15 percent is natural groundwater recharge, 20 percent is local surface water, and 5 percent is reuse water (Figure 5).



## Water Supply Distribution Map

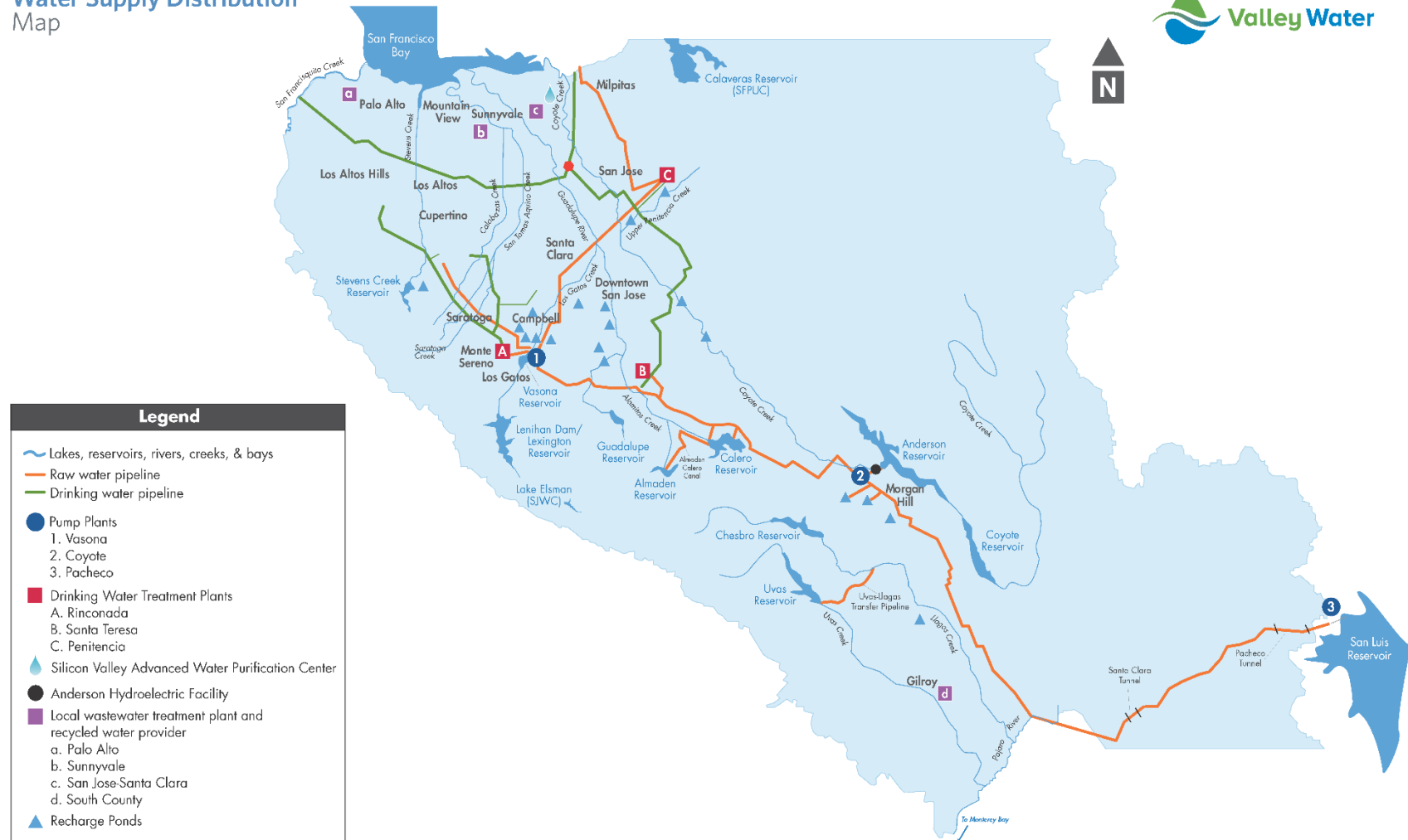


Figure 6. Water Supply Facilities

### **1.3 Need for the Water Supply Master Plan 2040**

The Valley Water Act states that one of the purposes of Valley Water is “to do any and every lawful act necessary to be done that sufficient water may be available for any present or future beneficial use or uses of the lands or inhabitants within the District.” Furthermore, Board Policy states that “there is a reliable, clean water supply for current and future generations.” One of Valley Water’s strategies for achieving this goal is to develop water supplies designed to meet at least 100 percent of average annual water demands in non-drought years and not call for water use reductions greater than 20% during drought years. The purpose, policy, and strategy recognize that a reliable water supply is vital to the social, economic, and environmental well-being of the county.

The Association of Bay Area Governments (ABAG) projects that the county’s population will increase from about 1.9 million in 2015 to about 2.4 million by 2040 (ABAG, 2013). Jobs are projected to increase from approximately 1 million in 2015 to approximately 1.2 million in 2040. Even though per capita water use continues to decline, Valley Water estimates that increases in population and jobs will result in an increase in water demands from the current long-term average of approximately 350,000 acre-feet per year (AFY) to a non-drought year demand of approximately 399,000 AF in 2040 (Appendix B, Demand Projection Methodology). Most of the increase in water demands will occur in northern Santa Clara County. Urban water use throughout the county is expected to increase, but rural and agricultural water use is expected to stay about the same. This projected increase in demands, along with projected reductions in supplies and ongoing risks, means that additional water supply investments will be needed to provide a reliable water supply in the future.

### **1.4 Contents and Use of this Report**

The Master Plan is organized as follows:

- Chapter 1 - A Reliable Water Supply is Important to the Community: discusses the community’s water use and needs, Valley Water’s role in meeting those needs, and the need for the Master Plan.
- Chapter 2 – Valley Water Needs to Develop Supplies for Future Droughts: describes the water supply outlook, challenges, and risks to providing a reliable future water supply in Santa Clara County.
- Chapter 3 – The Water Supply Strategy Ensures Sustainability: presents Valley Water’s strategy for meeting the county’s future water supply needs.
- Chapter 4 – The Monitoring and Assessment Plan Will Help Valley Water on Track: describes how the water supply strategy will be monitored and adjusted over time to ensure Valley Water is on track with its water supply investments.
- Chapter 5 – References

The modeling results in this report are based on demand, supply, and operating assumptions as of May 2019. Valley Water regularly reviews and refines its models. Future Master Plan reports will reflect updated modeling results and, if appropriate, make recommendations for revisions.

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## 2 Valley Water Needs to Develop Supplies for Future Droughts

This chapter describes the water supply reliability outlook for Santa Clara County. The Master Plan evaluates the ability to meet projected water demands through Year 2040 with the baseline water supply system. The evaluation shows existing supplies are sufficient to meet most future demands in normal years, but will not meet needs in future droughts. In addition, risks such as climate change, changes to regulations, and new policies could affect future water supply reliability.

### 2.1 Baseline Water Supplies

The baseline water supply system consists of existing water supplies and infrastructure, including several improvements. The Master Plan assumes Valley Water will improve existing dams to remove operating restrictions, complete the Rinconada Water Treatment Plant Reliability Improvement project, upgrade Vasona Pumping Plant, rehabilitate pipelines, support water retailers' efforts to increase non-potable reuse water use to about 33,000 AFY in 2040, and increase water conservation savings to about 99,000 AFY by 2030. The Master Plan assumes declining Delta-conveyed imported water reliability as a baseline condition, which is consistent with historic trends. Lastly, the Master Plan assumes Valley Water makes reservoir releases consistent with environmental requirements and commitments, including the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE) and regulatory permits.

The Master Plan also assumes that existing infrastructure is maintained consistent with Valley Water's Asset Management Plan and that Valley Water works with other agencies to maintain and manage their assets that support water supply reliability in Santa Clara County.

Modeling indicates that the baseline system will be able to meet non-drought year demands through 2025. However, shortfalls between supplies and demands begin in Year 2030. Figure 7 and Table 1 show projected average water supply use and non-drought year demands through Year 2040. The modeling assumes decreased Delta-conveyed supplies due to increased regulatory restrictions in year 2030. The decrease of Delta supplies is anticipated to progress gradually with time, but 2030 was selected in the model as the timeframe to reflect the loss. Valley Water's water supply system model and assumptions are described in Appendix C.

#### Baseline Water Supply System

- Conservation savings increasing from about 77,000 AF in 2018 to about 99,000 AFY by 2030
- Existing natural groundwater recharge
- Existing local surface water supplies with Fisheries and Aquatic Habitat Collaborative Effort (FAHCE) reservoir releases and flow requirements
- Reuse water use increasing from about 18,000 AF in 2018 to about 33,000 AFY in 2040
- Existing imported water supplies
- Dam seismic retrofits and other improvements to remove operating restrictions
- 10-Year Pipeline Rehabilitation
- Vasona Pumping Plant Upgrade
- Rinconada Water Treatment Plant Reliability Improvement

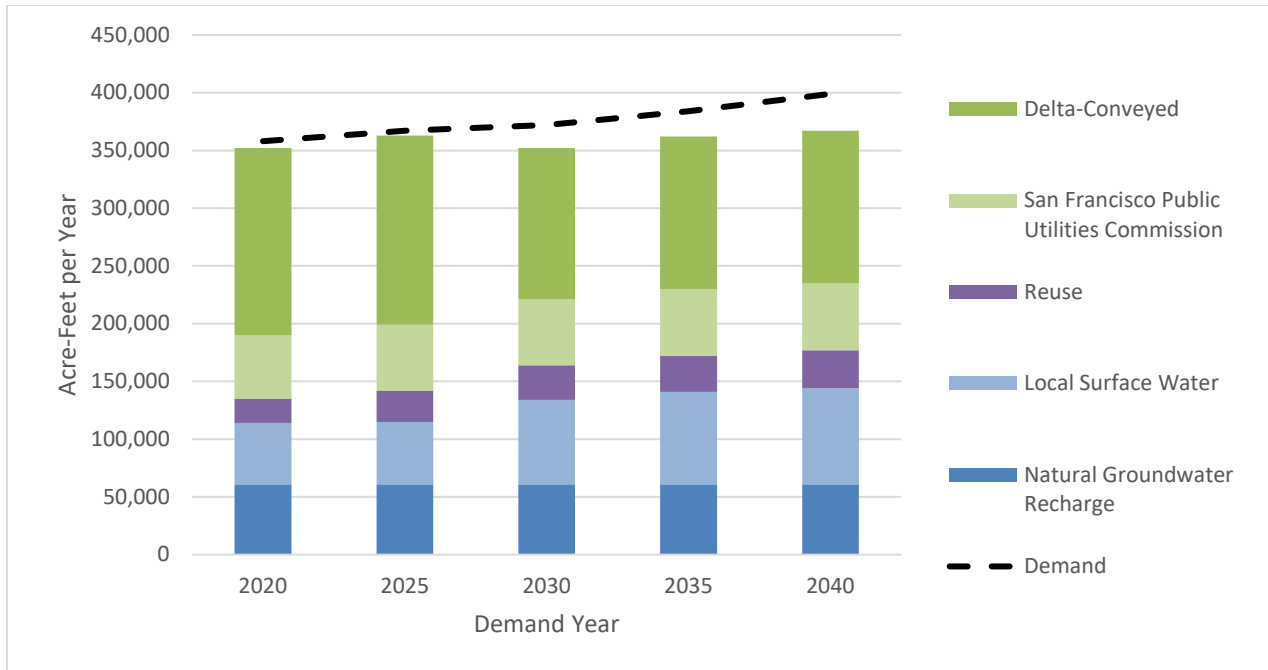


Figure 7. Average Baseline Water Supply Through 2040

Table 1. Average Baseline Water Supply Through 2040

Source of Supply (Acre-Feet)	2020	2025	2030	2035	2040
Natural Groundwater Recharge	61,000	61,000	61,000	61,000	61,000
Local Surface Water	53,000	54,000	73,000	80,000	83,000
Reuse Water	21,000	27,000	30,000	31,000	33,000
San Francisco Public Utilities Commission	55,000	57,000	57,000	58,000	58,000
Delta-Conveyed	162,000	164,000	131,000	132,000	132,000
Average Supply	352,000	363,000	352,000	362,000	367,000
Demand	358,000	367,000	372,000	384,000	399,000

### 2.1.1 Local Water Supply Sources

The groundwater subbasins are naturally recharged with rainfall, seepage from surrounding hills, seepage into and out of the groundwater subbasin, leakage from pipelines, and irrigation return flows. Natural groundwater recharge varies based on rainfall and groundwater levels. On average, natural groundwater recharge provides about 61,000 AFY of supply.

Local reservoirs capture rainfall and run-off. This water is used for recharge, irrigation, or drinking water treatment. Currently, Valley Water surface water supplies are constrained by an average of about 44,000 AFY due to operating restrictions on local reservoirs for seismic safety. Improvements to Anderson and Guadalupe Dams are modeled to be completed before 2030 and improvements to Calero and Almaden Dams before 2035. On average, Valley Water's local surface water supplies will provide about 73,000 AFY in 2040. On average, San José Water Company and Stanford University local surface water supplies provide about 11,000 AFY.

Reuse water is a local water supply source that is not dependent on rainfall. Reuse water is produced by the county's four publicly-owned wastewater treatment plants. It is municipal wastewater that has been treated to levels that make it appropriate for various non-drinking water (non-potable) purposes. In addition, Valley Water provides advanced treated purified water to South Bay Water Recycling to improve the quality of the non-potable supply. Non-potable reuse water use is projected to increase from about 21,000 AFY in 2015 to about 33,000 AFY in 2040.



*Anderson Reservoir is currently being operated at 52% of capacity due to seismic concerns with the dam at full capacity.*

### **2.1.2 Imported Water Supply Sources**

Imported supplies are used to meet a large percentage of county water needs. Imported water conveyed through the Delta via the State Water Project (SWP) and Central Valley Project (CVP) is used to supply Valley Water's drinking water treatment plants, groundwater recharge facilities, and irrigators. On average, more than 70 percent of Delta-conveyed supply is delivered to treatment plants, almost 30 percent is used for recharge, and a small percentage is delivered to irrigators. In addition, when available, Valley Water stores excess Delta-conveyed supplies in the Semitropic Groundwater Bank and San Luis Reservoir in the Central Valley, and locally in Anderson and Calero Reservoirs. Valley Water has a contract for 100,000 AFY of SWP water and 152,500 AFY of CVP water. However, the actual amount of water allocated under these contracts each year is typically less than these contractual amounts and depends on hydrology and regulatory restrictions. The average allocation of Delta-conveyed water projected for 2020 is about 171,000 AFY. However, without additional investments, Valley Water expects average allocations to decline over time to an average of about 133,000 AFY in 2040. The Master Plan assumes average Delta-conveyed imported water use to be lower than allocations as a result of water being left behind in the Semitropic Groundwater Bank according to contract requirements, carryover losses in extremely wet years, and evaporation from surface water reservoirs.

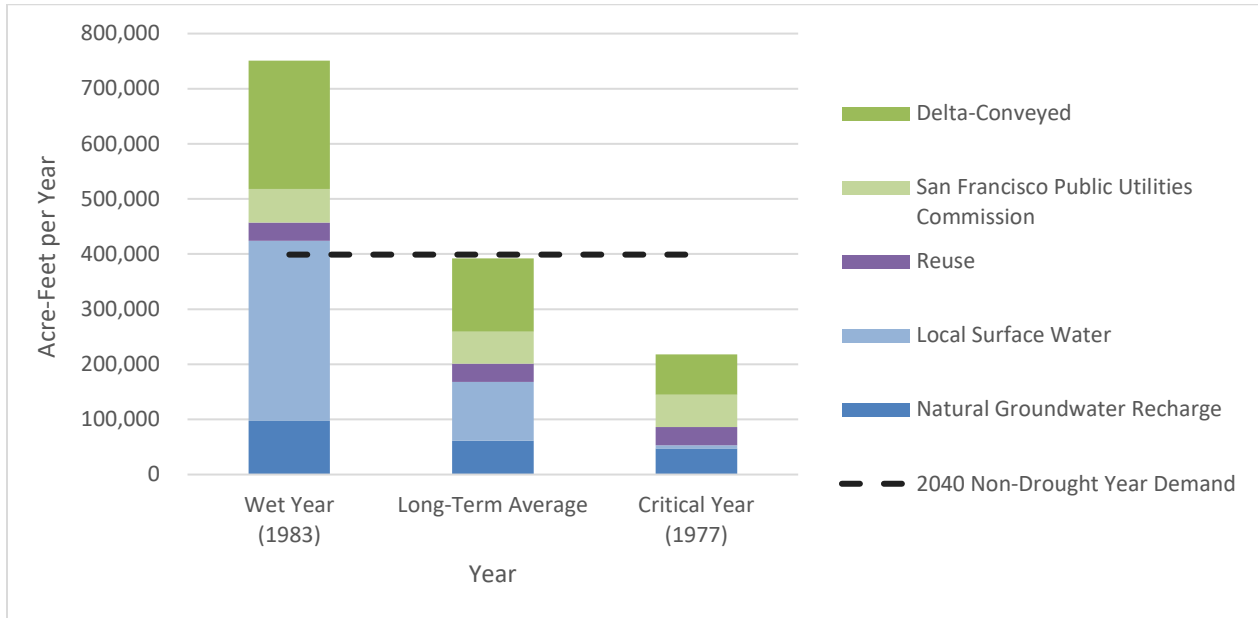
Santa Clara County began receiving SFPUC water to supplement local supplies in 1939. This water is provided to north county cities with access to SFPUC's Regional Water System. On average, the SFPUC delivers about 55,000 AFY to Santa Clara County. This amount is expected to increase slightly to 59,000 AFY in 2040 as SFPUC customer demands increase.

### **2.1.3 Supply Variability and Hydrology**

Santa Clara County, like the rest of California, experiences drastic changes in year-to-year annual precipitation. The variation in precipitation, both locally and in the imported water watersheds, results in fluctuations in the amount of water supply available from year to year. In many years, annual supplies exceed demands, while in other years demands can greatly exceed supplies. Figure 8 and



Table 2 illustrate 2040 projected demand and the availability of different water supplies in a very wet year, an average, and in a very dry year. The supplies shown do not include the use of reserves, which lessen any shortfalls in dry years. The long-term average supplies in Table 2 include environmental flows and are different than the supplies in Table 1. Table 1 and the remaining tables in this report show the available supply Valley Water can use to meet municipal and agricultural demands, but do not include environmental flows. Figure 8 and Table 2 show all the water that is flowing into the county on average.



**Figure 8. Projected Baseline Water Supply Availability in 2040 under Different Hydrologic Conditions**

**Table 2. Projected Baseline Water Supply Availability in 2040 under Different Hydrologic Conditions**

Source of Supply (Acre-Feet)	Wet Year (1983)	Long-Term Average	Critical Year (1977)
Natural Groundwater Recharge	97,000	61,000	47,000
Local Surface Water	327,000	107,000	6,000
Reuse Water	33,000	33,000	33,000
San Francisco Public Utilities Commission	61,000	58,000	59,000
Delta-Conveyed	233,000	133,000	73,000
<b>Total Supply (Acre-Feet)</b>	<b>751,000</b>	<b>392,000</b>	<b>218,000</b>

Valley Water’s basic water supply strategy to compensate for supply variability is to store excess wet year supplies in the groundwater basin, local reservoirs, San Luis Reservoir, or Semitropic Groundwater Bank. Valley Water draws on these reserve supplies during dry years to help meet demands. These reserves are sufficient to meet demands during a critical dry year and the first several years of an extended drought. Valley Water also works with retailers to balance groundwater pumping and treated water use based on groundwater basin conditions to maximize the use of available supplies.

## 2.2 Future Droughts are the Primary Water Supply Challenge

Water supply reserves (e.g., water banked in the Semitropic Groundwater Bank) are insufficient to meet needs throughout an extended drought. Modeling indicates shortages during droughts in all demand years, with shortages increasing in severity and frequency as demands increase and Delta-conveyed supplies decrease. By 2040, without new supplies or conservation savings, shortages could occur in about 40 percent of years and water supplies would only be able to meet about 60 percent of normal demand during some years. Short-term water use reductions of up to 50 percent would be needed to minimize the risk of land subsidence and avoid undesirable groundwater conditions. Figure 9 and Table 3 show the supplies and groundwater reserves that would be used with Year 2040 demands during a six-year drought like the one that occurred between 1987 and 1992. Reserves are more available in Drought Year 4 because the water use reductions in Drought Year 3 allowed groundwater conditions to improve. However, reserves are depleted by Drought Year 5.

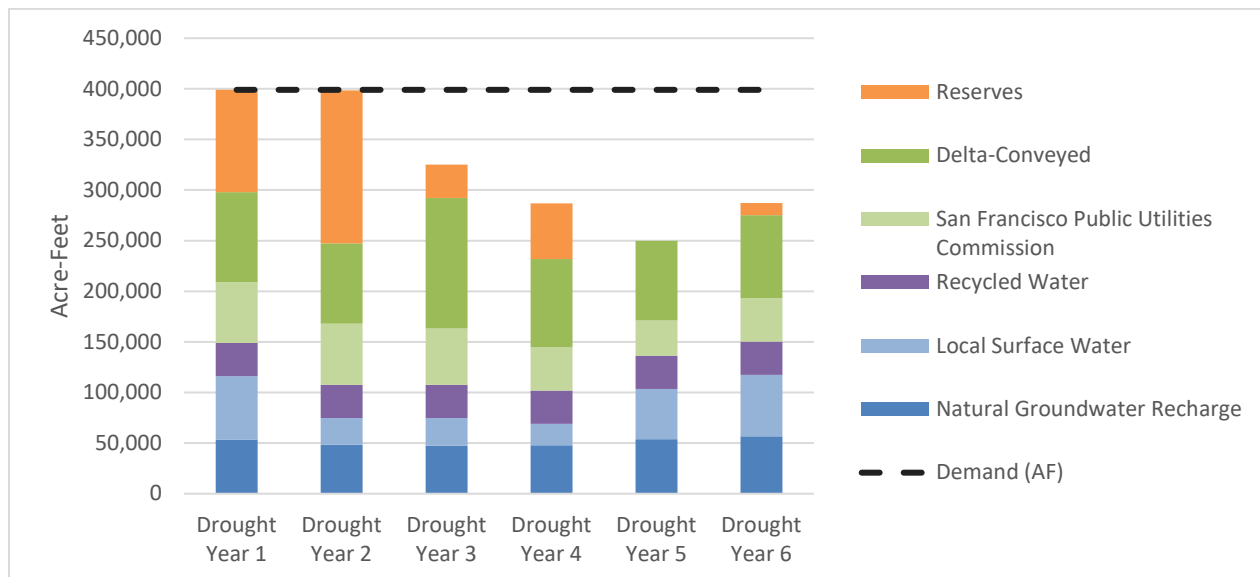


Figure 9. Baseline Water Supplies During an Extended Drought with Year 2040 Demands

Table 3. Baseline Water Supplies During an Extended Drought with Year 2040 Demands

Source of Supply (AF)	Drought Year 1	Drought Year 2	Drought Year 3	Drought Year 4	Drought Year 5	Drought Year 6
Natural Groundwater Recharge	54,000	48,000	47,000	48,000	54,000	57,000
Local Surface Water	62,000	26,000	27,000	21,000	50,000	61,000
Reuse Water	33,000	33,000	33,000	33,000	33,000	33,000
San Francisco Public Utilities Commission	60,000	60,000	56,000	43,000	35,000	43,000
Delta-Conveyed	89,000	79,000	129,000	87,000	79,000	82,000
Reserves	101,000	151,000	33,000	55,000	0	12,000
<b>Total Supply (AF)</b>	<b>399,000</b>	<b>398,000</b>	<b>325,000</b>	<b>287,000</b>	<b>250,000</b>	<b>287,000</b>
<b>Shortfall</b>	<b>0,000</b>	<b>1,000</b>	<b>74,000</b>	<b>112,000</b>	<b>149,000</b>	<b>112,000</b>

## 2.3 Other Water Supply Challenges and Uncertainties

Droughts are the greatest challenge to water supply reliability. However, other significant challenges and uncertainties need to be considered as part of the Water Supply Master Plan. These include climate change, additional regulatory requirements, and land use decisions.

### 2.3.1 Climate Change

The impacts of climate change are already being felt in the San Francisco Bay Area and northern California. Average annual maximum temperatures have increased by 1.7°F since 1950, sea level has



*Climate change is a global phenomenon, though it is manifested differently in different regions.*

risen over 8 inches in the last 100 years, and the 2012-2016 drought led to a 1-in-500 year low in Sierra snowpack and \$2.1 billion in economic losses statewide. These changes are projected to increase significantly in the coming decades. The Bay Area will likely see a significant temperature increase by mid-century. Precipitation will continue to exhibit high year-to-year variability, with very wet and very dry years. Average Sierra Nevada snowpack is projected to decline, up to 60 percent in mid-century under a high greenhouse gas emissions scenario. Future increases in temperature will likely cause longer and deeper droughts. These impacts will affect the quantity of available water and quality of water supplies (Ackerly et al., 2018).

Valley Water's water supply vulnerabilities to climate change include:

- Decreases in the quantity of imported water supplies: More precipitation falling as rain and earlier snowmelt may exceed the storage capabilities of the existing SWP and CVP reservoirs. Increases in temperature and evapotranspiration may also lead to a higher intensity of droughts, which can decrease imported water allocations. Rising air temperatures also increase the water temperatures, which can lead to increased evaporation rates, a higher risk of harmful algal blooms, and negative impacts to fish and wildlife, all of which can impact the availability of imported water supplies for Santa Clara County. Sea level rise may also have negative impacts on imported water supplies, largely because of saltwater intrusion into the Sacramento-San Joaquin Delta. Saltwater intrusion can impact water supply allocations, as more fresh water may be needed to flow through the Delta and into San Francisco Bay to hold back the saltwater, making it unavailable for CVP and SWP use. Sea level rise will also put additional pressure on the fragile Delta levees, making them more susceptible to failure.
- Increases in seasonal irrigation demands: Higher temperatures will increase agricultural, residential, and commercial/institutional irrigation demands. About 40 percent of water use in the county is for irrigation.

- Increases in cooling water demands: The county has several energy plants, multiple data centers, and facilities with cooling towers. Higher temperatures may also increase demands by these users.
- Decreases in the ability to utilize local surface water supplies: Shifts in the timing and intensity of rainfall and runoff could affect the ability to capture and use local surface water supplies. It is difficult to capture rainfall when it comes in a few intense storms, because reservoirs are more likely to fill and spill, or releases are needed to make room for the storm flows. When it is wet, there are typically lower demands for water, so the storm flows are difficult to put to immediate use. Thus, even if average annual rainfall stays the same, the ability to utilize local supplies may decrease.
- Decreases in water quality: Higher temperatures, wildfire, and changes in flow patterns could result in more algal blooms, increased turbidity, and increased salinity in imported and local surface water supplies. Sea level rise could also contribute to increased salinity in Delta-conveyed supplies. At a minimum, changes in water quality require additional monitoring. Often, they require changes to treatment processes. Sometimes, they can result in the interruption of supplies from the CVP or SWP.
- Increases in the severity and duration of droughts: Droughts are already Valley Water's greatest water supply challenge. With increases in demands and reductions in supplies, this challenge will only grow. Without additional supplies and demand management measures, Valley Water would need to call for more frequent and severe water use reductions. These actions affect the economic and social well-being of the county. More severe and longer droughts will also affect the environmental well-being of the county.



*Drought-resistant landscaping helps reduce demands on water.*

Valley Water needs to implement a water supply strategy that will adapt well to future climate change by managing demands, providing drought-proof supplies, and increasing system flexibility in managing supplies and water quality.

### **2.3.2 Additional Regulations and Permit Requirements**

Valley Water supplies have been affected by new regulatory requirements in the past and additional requirements are anticipated in the future. Locally, the greatest impact of regulations has been on instream recharge operations. Historically, Valley Water constructed gravel dams to increase groundwater recharge within creeks and released water from reservoirs to maximize recharge. However, over 25 years, Valley Water has revised its instream recharge operations to comply with new regulatory requirements and better balance water supply operations with fishery and other environmental needs. Additional changes are anticipated in the future as Valley Water implements the Settlement Agreement produced by the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE) in

2003. These past and anticipated future changes limit Valley Water’s ability to use creeks for conveying and recharging water, which in turn could reduce the flexibility of Valley Water to manage groundwater basins. Groundwater recharge is a key component of Valley Water’s conjunctive use program.

Imported water supplies have also been affected by regulations related to environmental protection. Valley Water holds contracts with the California Department of Water Resources (DWR) and U.S. Bureau



*The California Aqueduct delivers Delta-conveyed supplies to municipal, industrial, and agricultural customers*

of Reclamation for up to 252,500 AF per year of supplies from the SWP and CVP, with actual deliveries subject to availability of water supplies and the satisfaction of regulatory constraints to protect fish, wildlife, and water quality in the Sacramento-San Joaquin Delta. These Delta-conveyed imported water deliveries from the SWP and CVP have been negatively impacted by significant restrictions on Delta pumping required by biological opinions issued by the U.S. Fish and Wildlife Service in 2008 and National Marine Fisheries Service in 2009. Based on modeling projections provided by DWR, future average imported water deliveries could decrease with additional regulatory restrictions and impacts from climate change.

The State Water Resources Control Board (State Water Board) approved amendments to the Water Quality Control Plan for the San Francisco/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan) in December 2018 that will result in increased restrictions on water users within the San Joaquin Basin (Basin), potentially reducing SFPUC supplies. State Water Board staff are working with Basin stakeholders to develop voluntary agreements that will achieve an equivalent level of environmental protection while reducing impacts on water supplies. If these voluntary agreements are not developed and adopted by the State Water Board as an alternative to the December 2018 approved changes and the objectives in the recently approved plan are implemented, SFPUC supplies to Santa Clara County retailers will likely be reduced, which could increase demand for Valley Water supplies.

### **2.3.3 Demands**

The Master Plan includes demand projections in five-year increments through Year 2040, but these long-term demand projections are uncertain. Water use is affected by multiple factors, including population, number of jobs, type of use, weather, economic conditions, social behavior, and regulations. Each of these factors has its own inherent uncertainties in projections and/or is too variable to predict over a 20-year planning horizon. For example, we know implementing the State’s “Making Conservation a Way of Life” will include outdoor water use targets. However, we do not currently know what those targets will be and whether they will be achieved on schedule. We also know that maximum high temperatures will almost certainly increase, but we do not know how that will affect irrigation and cooling demands.



We can anticipate an economic recession over the next 20 years, but we cannot predict when it will occur.

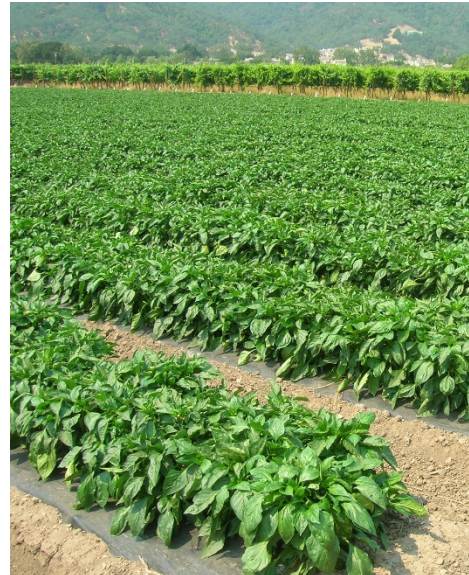
Historically, actual demands have been lower than those projected in prior long-term plans. For example, Valley Water's 2005 Urban Water Management Plan had a demand projection of 396,000 AF for 2015. Actual water use in 2015 was about 283,000 AF, which was low due to severe drought reductions, and actual water use in 2013 (before the drought) was about 367,000 AF. Some of the variation between projected and actual water use is related to using conservative projections to ensure we are planning for sufficient water supplies. Some of the variation is related to other factors such as regulations, social behavior, and type of water use.

#### **2.3.4 Other Uncertainties**

The greatest risk to natural groundwater recharge is a reduction in pervious surfaces due to an expanded urban footprint. Activities that keep water onsite and protect open spaces on the valley floor will help maintain natural groundwater recharge.

The quantity of SFPUC supplies used in the county could be reduced in the future. This could result from retailers' shifting their use of SFPUC to other supplies, future decreases in demand, or changing regulations. This could also result from SFPUC discontinuing deliveries to San José and Santa Clara because these cities have interruptible contracts with SFPUC. SFPUC, the cities, and Valley Water are looking at options to make San José and Santa Clara permanent SFPUC customers.

Valley Water continues to monitor those risks that can change the water supply outlook and works to influence key external decisions that have the potential to impact water supply reliability. The Master Plan will be reviewed annually and updated at least every five years based on the monitoring and assessment plan described in Chapter 4. This planning cycle allows risks to be evaluated on an ongoing basis, so that the water supply strategy can be updated as better information becomes available.



*Open spaces and agriculture help maintain natural infiltration/recharge.*



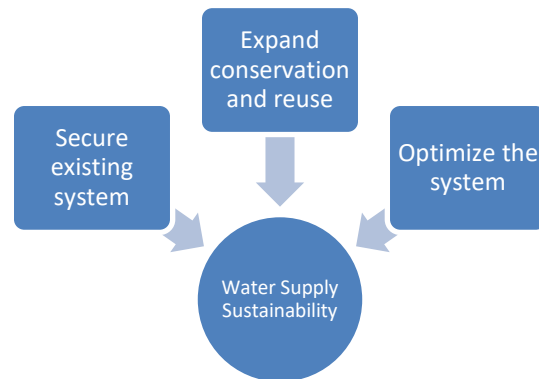
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### 3 The Water Supply Strategy Ensures Sustainability

Valley Water's Ensure Sustainability water supply strategy relies on the following three elements to provide a reliable supply of water to meet needs through 2040:

1. secure existing supplies and infrastructure,
2. increase water conservation and water reuse, and
3. optimize the use of existing supplies and infrastructure.

This strategy ensures sustainability because it maintains and builds on the existing baseline system, develops drought-resistant supplies to meet drought needs, and manages risks to water supply reliability from climate change and other risks and uncertainties.



No individual project can address all the county's future water supply needs, so various combinations of projects were evaluated for their ability to meet Valley Water's reliability goal under various scenarios. Several different approaches or strategies will meet Valley Water's water supply reliability goals, but they all have tradeoffs. Some strategies rely heavily on projects that perform well during droughts and in a changed climate, but they are more expensive. Other strategies rely on lower cost projects, but are more susceptible to risks. Some strategies include projects that have environmental or other benefits, but lower water supply reliability benefits. Some projects are preferred more than others by the community. Stakeholders all agree that 1) water supply reliability is important; 2) we should maximize water conservation, water reuse, and stormwater capture; and 3) we need to keep water rates affordable. Based on stakeholder input, technical analyses, and the climate of uncertainty, the Ensure Sustainability strategy provides a framework for balancing multiple needs and interests while making effective and efficient investment decisions.

#### 3.1 The Elements of the Ensure Sustainability Water Supply Strategy Work Together

The Ensure Sustainability strategy elements work together to protect and build on past investments in water supply reliability, leverage those past investments to increase flexibility, and develop alternative supplies and demand management measures to manage risk and meet future needs, especially during extended droughts in a changing climate. These elements, combined with Valley Water's Asset Management and Infrastructure Reliability programs, provide a pathway to a sustainable water supply system. The water supply strategy elements, and the associated projects for this Master Plan, are discussed below. Information on specific projects that are currently in the plan and that have been evaluated for inclusion in the plan is summarized in Appendix D (Project List).

**3.1.1 Secure Existing Supplies and Infrastructure**

Valley Water should secure existing supplies and facilities for future generations because they are, and will continue to be, the foundation of the county's water supply system. The baseline water supply



*Non-potable reuse (purple pipe) reduce demands on potable supplies.*

system was described in Section 2.1. Annual water supply use is projected to be approximately 354,000 AFY in 2020 and approximately 368,000 AFY in 2040. While local water supplies are expected to increase as the dams are retrofitted and non-potable reuse expands, Delta-conveyed imported water supplies are expected to decline as a result of regulations and climate change.

The Ensure Sustainability strategy includes Valley Water participation in the Delta Conveyance Project (formally known as California WaterFix). The Delta Conveyance Project involves constructing alternative conveyance (one tunnel)

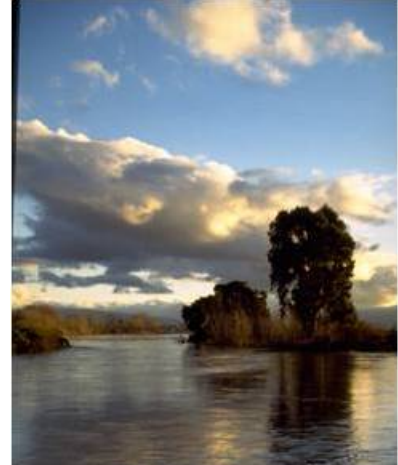
capable of diverting up to 9,000 cubic feet-per-second from the Sacramento River north of the Delta and delivering it to the SWP and CVP pumps at the southern end of the Delta. This would result in less impactful diversions, help maintain existing deliveries, improve the ability to do transfers, and protect water quality from sea level rise. The Board decided to participate in the Delta Conveyance Project on May 8, 2018. The most recent estimates are that the project could improve average Delta-conveyed imported supply use to 170,000 AFY, though the project definition and yields are currently under review by the State.

**3.1.2 Increase Water Conservation and Reuse**

Demand management, stormwater capture, and water reuse are critical elements of the water supply strategy. They perform well under current climate conditions and late-century climate change. Water reuse provides local supplies that are not directly hydrologically dependent, so they are resilient to extended droughts when Valley Water most needs additional supplies. They make efficient use of existing supplies, so they are sustainable. In addition, these activities are broadly supported by stakeholders.

The Master Plan includes the Additional Conservation and Stormwater Projects and Programs. Specific projects include incentivizing the use of advanced metering infrastructure (AMI); customer side leak repair incentives; graywater program expansion; rebates for the installation of rain barrels, cisterns, and rain gardens; partnerships to construct stormwater capture basins; and a flood-managed aquifer project. The Additional Conservation and Stormwater Projects and Programs package should reduce future demands by an additional 10,000 AFY (above the current target of 99,000 AFY of savings by 2030) and increase water supplies by about 1,000 AFY by 2040.

The Master Plan also includes developing at least 24,000 AFY of additional potable reuse (above the current target of 33,000 AFY of total reuse) by 2040. For budget and schedule purposes, the Master Plan assumes the reuse target will be achieved by implementing the Los Gatos Ponds Potable Reuse Project through a potential public-private partnership. The Los Gatos Ponds Potable Reuse Project involves purifying water at an expanded Silicon Valley Advanced Water Purification Center in Alviso, pumping the water to Campbell, and using the purified water for groundwater recharge in the existing ponds along Los Gatos Creek. Valley Water is currently developing a Countywide Water Reuse Master Plan that will evaluate potable reuse options, including identifying other options for achieving the Master Plan's reuse target.



*Potable reuse includes delivering purified recycled water to groundwater recharge ponds.*

### **3.1.3 Optimize the Use of Existing Supplies and Infrastructure**

This element of the Ensure Sustainability strategy includes projects that increase Valley Water's ability to use existing supplies and infrastructure. Valley Water's existing supplies are more than sufficient to meet current and future needs in wet and above normal years. In some years, supplies exceed needs and additional facilities would increase flexibility and the ability to use or store those excess supplies. Additional infrastructure could increase Valley Water's ability to respond to outages and challenges such as droughts and water quality problems with existing supplies.

The Master Plan includes three projects that optimize the use of existing supplies and infrastructure – Pacheco Reservoir, Transfer-Bethany Pipeline, and South County Recharge. Pacheco Reservoir is consistent with the Board's priority to actively pursue efforts to increase water storage opportunities. The project, through a partnership with Pacheco Pass Water District, San Benito County Water District, and potentially other partners, will enlarge Pacheco Reservoir from about 6,000 AF to about 140,000 AF and connect the reservoir to San Felipe Division facilities of the CVP. The reservoir will be used to store local runoff and CVP supplies and operated to provide water for fisheries downstream of the reservoir and increase in-county storage and flexibility of CVP supplies. Other potential benefits could include managing water quality impacts from low-point conditions in San Luis Reservoir and downstream flood protection.

The Transfer-Bethany Pipeline will be a pipeline that connects Contra Costa Water District's (CCWD's) system to Bethany Reservoir, which serves the South Bay Aqueduct and the California Aqueduct. This project will enable Valley Water to receive Delta surplus supplies and some contract supplies through



*The Transfer-Bethany pipeline will connect Contra Costa Water District's Los Vaqueros Reservoir and Delta intakes to the State Water Project.*

CCWD's system in the Delta instead of or in addition to the CVP and SWP pumps in the southern Delta. This will increase reliability and flexibility for Valley Water. The project would also facilitate other potential regional projects. This project is a partnership between CCWD, Valley Water, and agencies in the Bay Area and Central Valley as part of the larger Los Vaqueros Reservoir Expansion Project.

South County Recharge includes increasing groundwater recharge capacity in the northern end of the Llagas Subbasin, either through reoperation of existing facilities or connecting existing facilities to additional water sources. This will enable Valley Water to capture more wet season water, more

effectively manage supplies and maintain groundwater levels during droughts.

Both the Transfer-Bethany Pipeline portion of the Los Vaqueros Reservoir Expansion and the Pacheco Reservoir Expansion increase Valley Water's water supply operations flexibility and increase emergency water storage. The State, which conditionally approved more than \$450 million for each of the projects, recognizes that those projects also provide ecosystem improvements, recreation opportunities, and/or flood protection benefits.

The three projects – South County Recharge, Pacheco, and Transfer-Bethany Pipeline – would increase system flexibility and/or emergency supply and would also provide a combined average annual yield of about 5,000 AFY.

### **3.2 Water Supply Reliability Improvements Meet the Level of Service Goal**

The Valley Water Board approved an updated long-term water supply reliability level of service goal on January 14, 2019 (Appendix E, January 14, 2019 Board Agenda Package). The goal is to develop supplies to meet at least 100 percent of annual water demand identified in the Valley Water's Master Plan during non-drought years and at least 80 percent of annual water demand in drought years. This level of service goal balances the goals of minimizing shortages and minimizing costs. The community demonstrated its ability to manage shortages by achieving water use reductions of almost 30 percent in the 2012 to 2016 drought.

The Master Plan projects (Delta Conveyance Project, Additional Conservation and Stormwater Projects and Programs and Programs, Potable Reuse Program, Pacheco Reservoir Expansion, Transfer-Bethany Pipeline, and South County Recharge), along with the baseline supplies and infrastructure, meet the water supply reliability level of service goal in all demand years except

#### **Master Plan Projects:**

- Delta Conveyance Project
- Additional Conservation and Stormwater Projects and Programs and Programs
- Potable Reuse Program
- Pacheco Reservoir Expansion

2030. Rather than add a project to address a small shortage in a single year, this small shortage will be managed through the monitoring and assessment plan discussed in Chapter 4. Figure 10 and Table 4 show average water supply use and non-drought year demands in five-year increments through 2040. Average supplies are less than demands in some demand years because the supply reflects how much supply the county can use on average, including in years with shortages, and demands are projected demands before water use reductions in drought years.

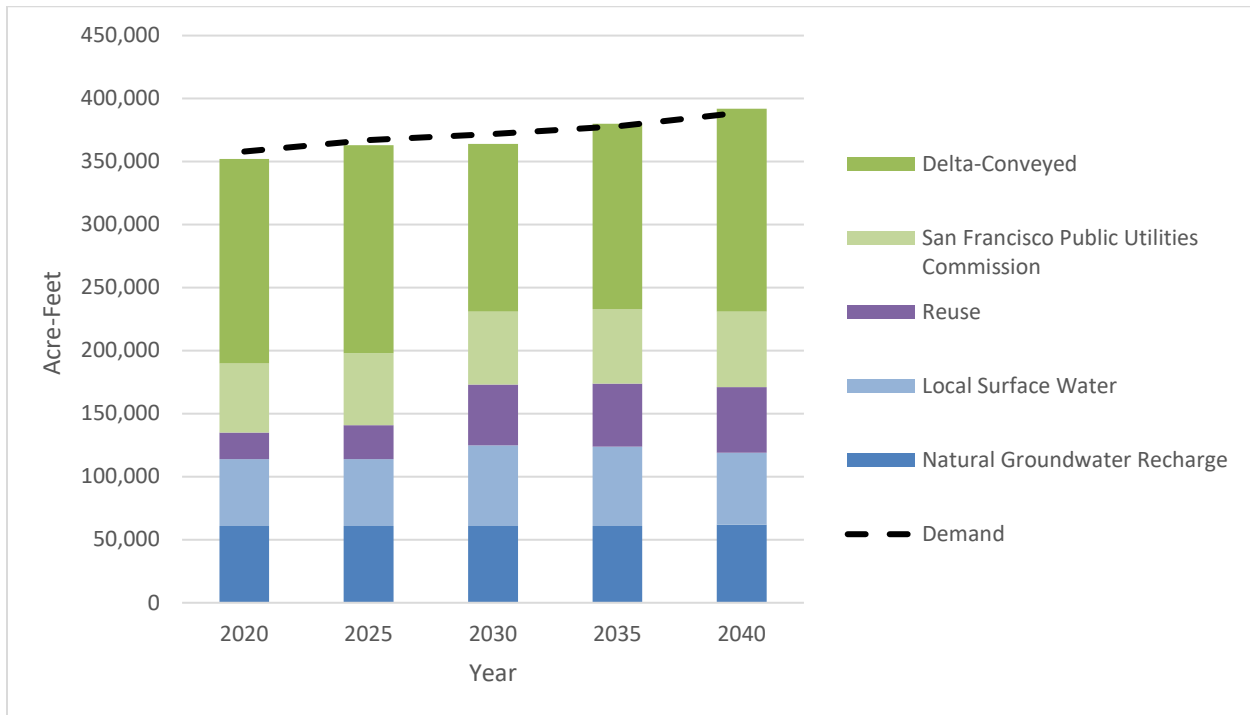


Figure 10. Average Water Supplies with Master Plan Projects

Table 4. Average Water Supplies with Master Plan Projects (AF)

Supply	2020	2025	2030	2035	2040
Natural Groundwater Recharge	61,000	61,000	61,000	61,000	62,000
Local Surface Water	53,000	53,000	64,000	63,000	57,000
Reuse	21,000	27,000	48,000	50,000	52,000
San Francisco Public Utilities Commission	55,000	57,000	58,000	59,000	60,000
Delta-Conveyed	162,000	165,000	133,000	147,000	161,000
Average Supply	353,000	363,000	364,000	379,000	391,000
Demand	358,000	367,000	372,000	378,000	389,000

Figure 11 and Table 5 show water supplies during an extended drought like the one that occurred from 1987 to 1992 with the Ensure Sustainability water supply strategy in place and the 2040 demand level. With the Ensure Sustainability Strategy in place, supplies are sufficient to meet 100 percent of demand during the first five years of drought and more than 90 percent in the last year.



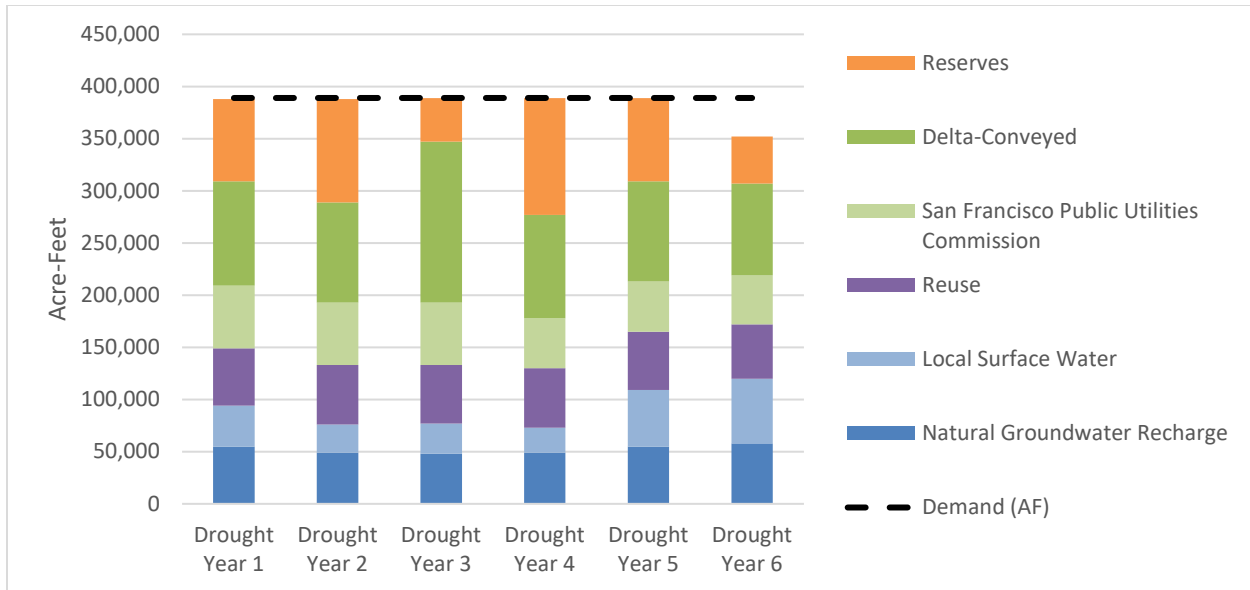


Figure 11. Water Supply Use During an Extended Drought based on 2040 Demands

Table 5. Water Supply Use During an Extended Drought based on 2040 Demands (AF)

Source of Supply	Drought Year 1	Drought Year 2	Drought Year 3	Drought Year 4	Drought Year 5	Drought Year 6
Natural Groundwater Recharge	55,000	49,000	48,000	49,000	55,000	58,000
Local Surface Water	39,000	27,000	29,000	24,000	54,000	62,000
Reuse	55,000	57,000	56,000	57,000	56,000	52,000
San Francisco Public Utilities Commission	60,000	60,000	60,000	48,000	48,000	47,000
Delta-Conveyed	100,000	96,000	154,000	99,000	96,000	88,000
Reserves	79,000	99,000	42,000	112,000	80,000	45,000
<b>Total Supply</b>	<b>389,000</b>	<b>389,000</b>	<b>389,000</b>	<b>389,000</b>	<b>389,000</b>	<b>352,000</b>
<b>Shortfall</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>37,000</b>

Implementation of the Ensure Sustainability water supply strategy would reduce the frequency and magnitude of short-term water use reductions under 2040 demands. Figure 12 shows shortages with and without the Master Plan projects. The small blue area in shows that, with full implementation of all elements of the water supply strategy, short-term water use reductions would occur only three percent of the time and the maximum call for water use reductions would be 20 percent. If only baseline investments are made, illustrated by the orange area in Figure 12, the model predicts that water use reductions would occur about 40 percent of the time and the level of short-term water reductions could be as high as 50 percent. Water use reductions this high would necessitate water use restrictions and impact the local economy. Water use reductions would be needed almost half the time and in some years water supply would only be available to meet health and safety needs.

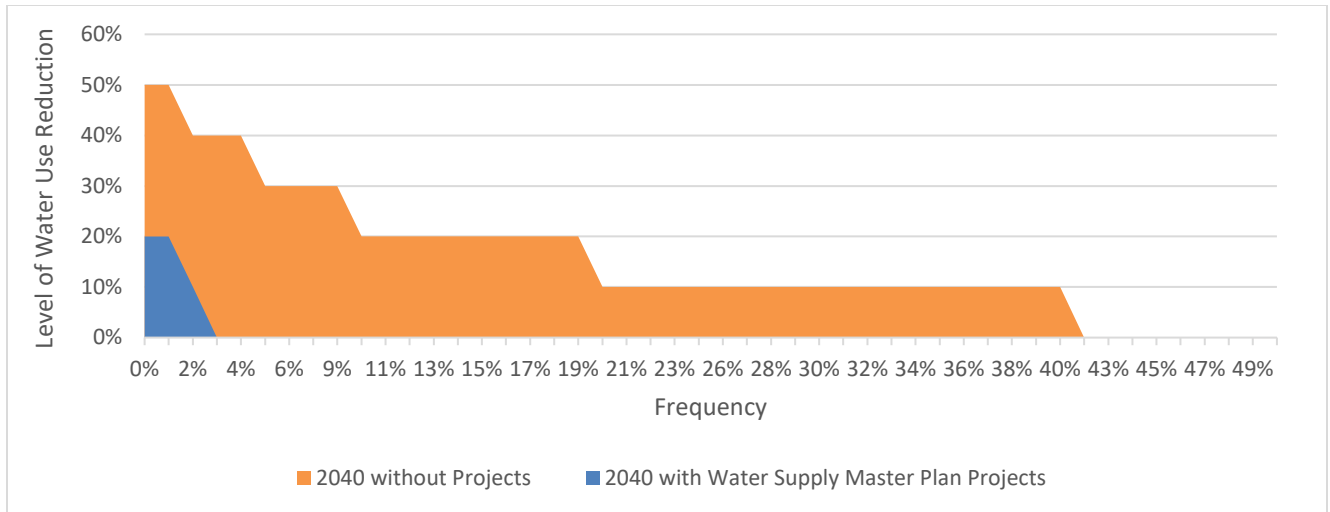


Figure 12. Water Use Reductions under Different Investment Scenarios

### 3.3 The Water Supply Strategy Supports Other Important Benefits

The key benefit of the Ensure Sustainability Strategy is that it develops potable reuse and conservation, which are local drought-resistant supplies, to achieve Valley Water’s strategy to develop supplies to meet at least 80 percent of demands during drought years. The Master Plan also achieves the following other planning objectives, which are described in Appendix D:

- **Maintaining Groundwater Storage:** Groundwater storage is in the Normal stage of Valley Water’s water shortage contingency plan in more than 95 percent of modeled years due to the combination of projects in the Master Plan. In the Llagas Subbasin, the South County Recharge project will help maintain groundwater storage.
- **Securing Existing Water Supplies:** The Ensure Sustainability Strategy includes implementing FAHCE to secure existing local water rights, retrofitting dams to remove operating restrictions, and participating in the Delta Conveyance Project to maintain existing imported water supplies.
- **Maximizing Water Conservation and Water Use Efficiency:** The Additional Conservation and Stormwater Projects and Programs increase the Valley Water’s water conservation savings target to 109,000 AFY by 2040 and adds stormwater capture projects. The strategy also includes increasing countywide reuse to 52,000 AFY in 2040, which exceeds Valley Water’s goal of water reuse meeting at least 10 percent of countywide demand.
- **Protecting Groundwater Quality:** Potable reuse will increase recharge using highly purified water, which will help maintain or improve groundwater quality in northern Santa Clara County. Delta Conveyance Project will help maintain current salinity levels in imported water supplies used for groundwater recharge.
- **Meeting Drinking Water Regulations:** Delta Conveyance Project should help maintain current salinity levels in imported water supplies used at drinking water treatment plants. Pacheco Reservoir and Transfer-Bethany Pipeline will increase Valley Water’s flexibility in where it can obtain water from to send to treatment plants, which will help avoid water quality issues in San Luis Reservoir and the Delta.

- Maximizing Valley Water Influence over Supplies and Operations: Pacheco Reservoir, Transfer-Bethany Pipeline, and South County Recharge will increase Valley Water’s ability to manage variability in water supplies and respond to emergencies. Pacheco Reservoir, Transfer-Bethany Pipeline, Additional Conservation and Stormwater Project, and reuse will involve partnerships with other agencies, which will increase regional cooperation once partnership agreements are reached.



*The Pacheco Reservoir Expansion Project will increase storage capacity in Pacheco Reservoir from about 6,000 AF to over 140,000 AF.*

- Allowing for Phased Implementation of New Projects and Programs: Chapter 4 describes how the Master Plan projects and programs will be phased in over time. This will allow Valley Water to adjust to changes in demand and supply projections, as well as changes in project definitions.
- Adapting to Climate Change: All the elements of the Ensure Sustainability Strategy adapt to climate change. Delta Conveyance Project addresses changes in runoff patterns and sea level rise in the Delta. Additional Conservation and Stormwater Projects and Programs will reduce demands for water. Reuse develops drought-resilient supplies that help carry us through dry periods. Pacheco Reservoir, Transfer-Bethany Pipeline, and South County Recharge add flexibility to the system to take advantage of increased storm intensity.
- Protecting and Restoring Creek, Bay, and Other Aquatic Ecosystems: The California Water Commission, which has conditionally awarded \$485 million to the Pacheco Reservoir project, found that the project may benefit steelhead habitat in Pacheco Creek downstream of the reservoir. Implementing FAHCE will support native fisheries in Santa Clara County.
- Fulfilling Reasonable Customer Expectations for Good Service: The Master Plan projects improve water supply reliability throughout the county.
- Providing Natural Flood Protection and/or Reduced Potential for Flood Damages: The Additional Conservation and Stormwater Projects and Programs will keep stormwater on site and/or reduce discharges to stormwater facilities. The Pacheco Reservoir could also provide flood benefits to San Benito County by attenuating peak flows entering the reservoir and lowering water levels in Pacheco Creek and Pajaro River downstream.

Another important benefit of the Ensure Sustainability strategy is that it would reduce reliance on imported water supplies, which Valley Water measures by the percent of imported supplies in its water supply portfolio, as a result of increases in water use efficiency and conservation. A more diverse portfolio of supplies will be more resilient to risks and uncertainties, including climate change, than a portfolio with increased reliance on imported water supplies. Imported supplies are particularly vulnerable to climate change and regulatory actions like the Bay Delta Water Quality Control Plan. State policy, as stated in the Delta Reform Act of 2009 (California Water Code Section 85021), is to “reduce reliance on the Delta in meeting California’s future water supply needs through a statewide strategy of

*investing in improved regional supplies, conservation, and water use efficiency. Each region that depends on water from the Delta watershed shall improve its regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts.”*

Figure 13 shows how the mix of countywide supplies would change between 2020 and 2040. The significant changes are in reuse and Delta-conveyed supplies. Delta-conveyed supplies decrease from 46 percent of countywide supply in 2020 to 41 percent in 2040. Reuse increases from six percent of countywide supply in 2020 to 13 percent in 2040. In addition to the seven percent increase in reuse, long-term water conservation program savings are projected to increase from about 80,000 AFY in 2020 to about 109,000 AFY in 2040.

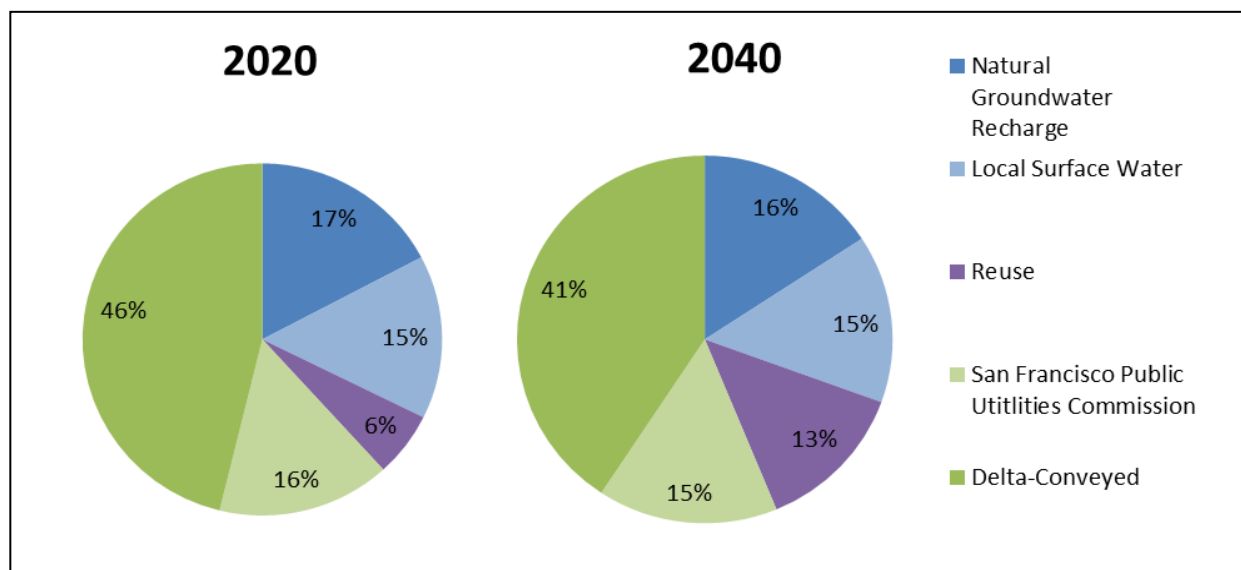


Figure 13. Change in Water Supply Mix over Time

### 3.4 The Ensure Sustainability Strategy is Consistent with Stakeholder Input

The Ensure Sustainability Strategy incorporates stakeholder input. Input was received through several forums, including Board meetings, stakeholder meetings, Board Advisory Committee meeting, Board Committee meetings, retailer meetings, and a voter survey. Input received through January 14, 2019 is summarized in Appendix E (January 14, 2019 Board Agenda Package including attachments).

Stakeholders support a reliable water supply, affordable rates, and project and programs related to water conservation, water reuse, and stormwater capture. The water supply reliability level of service and Ensure Sustainability strategy balance interests in water supply reliability and impacts on rates. Additional reuse and the Additional Conservation and Stormwater Projects and Programs are critical elements of the water supply strategy. Some of the projects in the Master Plan are not as universally supported as reuse and the Additional Conservation and Stormwater Projects and Programs, but they address many stakeholders' interests. For example, Delta Conveyance Project is generally opposed by environmental groups. However, the project will secure Delta-conveyed water supplies at a much lower

cost than some other projects, which addresses other stakeholders' interests related to costs and water supply reliability. Expanded storage is favored by voters and Pacheco Reservoir can provide expanded storage. However, there is some opposition in the environmental community to new surface reservoirs.

### 3.5 The Ensure Sustainability Strategy Balances Risks and Costs

Valley Water evaluated the costs and risks associated with projects being considered for the Master Plan (Table 6). Risks were considered in four categories – stakeholder, implementation, operations, and cost. Stakeholder risks include public perception, regulatory restrictions, and partnerships. Implementation risks include construction complexity and phasing potential. Operation risks include climate change and uncertainty in long-term operations and maintenance. Cost risks include stranded assets and financing security. In general, lower cost projects and/or local projects have lower risks than higher cost and more complex projects. The projects in the Master Plan have a balanced risk profile, with some projects considered low risk (most of the Additional Conservation and Stormwater Projects and Programs and South County Recharge), some considered medium risk (potable reuse, Pacheco Reservoir, and Transfer-Bethany Pipeline), and some considered high risk (Delta Conveyance Project). The Risk Ranking report and additional information is included in Appendix E (January 14, 2019 Board Agenda Package).

**Table 6. Master Plan Project Costs and Risks**

Project	Average Annual Yield (AFY)	Valley Water Lifecycle Cost <sup>2</sup>	Unit Cost (AF)	Risk
<b>Delta Conveyance Project</b>	41,000	\$630 million	\$600	High/Extreme
<b>Additional Conservation &amp; Stormwater Projects</b>	11,000	\$100 million	\$400	Medium
<b>Potable Reuse</b>	19,000	\$1.2 billion	\$2,000	Medium
<b>Pacheco Reservoir Expansion<sup>1</sup></b>	6,000	\$340 million <sup>3</sup>	\$2,000	Medium
<b>Transfer-Bethany Pipeline<sup>1</sup></b>	3,500	\$78 million	\$700	Medium
<b>South County Recharge</b>	2,000	\$20 million	\$400	Medium

Ultimately the amount of project yield and benefit that is usable by Valley Water depends on the portfolio of water supply projects that Valley Water ultimately implements and the outcome of ongoing regulatory processes.

<sup>1</sup> Assumes Prop. 1 Water Storage Investment Program funding. Costs would roughly double without funding.

<sup>2</sup> Valley Water lifecycle costs are presented in 2018 present value dollars.

<sup>3</sup> Assumes Prop. 1 and WIIN funding, WIFIA loan, and partner agencies pay 20% of the project.

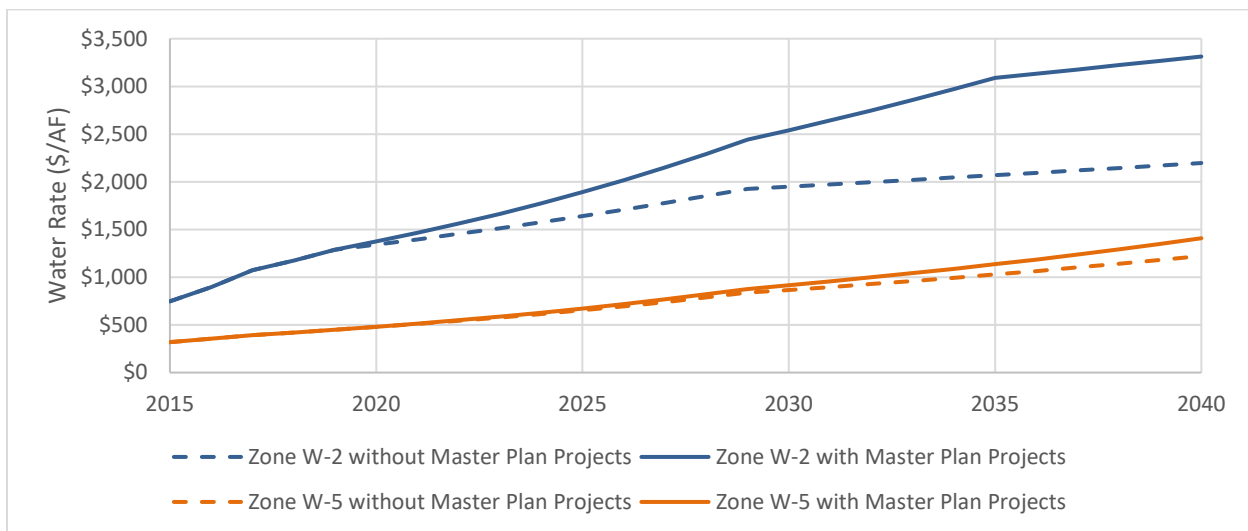
Valley Water also evaluated the costs and economic benefits of improved water supply reliability associated with different projects and water supply strategies (Appendix A, Cost Analysis Methodology). The Ensure Sustainability Strategy costs more than other water supply strategies, but, as discussed above, it meets multiple objectives, addresses multiple stakeholder interests, and balances risk. The economic analysis found that the water supply reliability benefits of the water supply strategy are more

than the costs. The present value of the avoided water supply shortages (benefits) is about \$2.4 billion and the present value cost of the Master Plan projects is about \$2.1 billion, for a benefit:cost ratio of about 1.15. This calculation does not include benefits associated with ecosystem improvement, emergency storage, flood risk reduction, or water quality. Nor does it include costs associated with potential increases in greenhouse gas emissions from potable reuse and Pacheco Reservoir. Table 7 shows the reduction in the frequency and severity of shortage with the Master Plan projects and the economics associated with the water supply reliability improvements.

**Table 7. Water Supply Reliability Benefits and Costs**

	Without Projects	With Projects
<b>Number of Years (out of 94) with Shortages</b>	38	2
<b>Maximum Shortage/Water Use Reduction</b>	50%	20%
<b>Present Value of Benefits (2018\$)</b>	Not applicable	\$2.1 billion
<b>Present Value of Costs (2018\$)</b>	Not applicable	\$2.4 billion
<b>Benefit:Cost Ratio</b>	Not applicable	1.15

The estimated impacts on municipal and industrial groundwater production charges from the Master Plan in Fiscal Year 2040 are \$1,116/AF in Zone W-2 (North County) and \$187/AF in Zone W-5 (South County). The average annual increase in North County charges increases from about 2.6 percent to 4.6 percent. In South County, that average annual increase increases from about 4.9 percent to about 5.6 percent. This projection is based on the groundwater production charge analysis in Valley Water's Protection and Augmentation of Water Supplies 2019-2020 (Santa Clara Valley Water District, 2019), which does not include costs for the CVP portion of Delta Conveyance Project due the uncertainty with the amount and timing of costs and assumes external funding for most of the Pacheco Reservoir capital costs. Figure 14 shows the anticipated impacts of the Master Plan projects on groundwater production charges.



**Figure 14. Municipal and Industrial Groundwater Production Charge Impacts from Master Plan**



Valley Water may be able to reduce groundwater production charge impacts if the following opportunities become available in the future:

- Direct potable reuse is permitted and accepted by the community and regulatory agencies;
- Advanced treatment technologies become less expensive, more efficient, or both;
- Additional partners join the Pacheco Reservoir project;
- Cities and Valley Water agree on approaches for impact fees to benefit Master Plan projects;
- Cities implement stormwater projects with Valley Water cost-sharing;
- Projects are funded through special taxes or other funding mechanisms; and/or
- Projects are postponed because demands remain flat.

## 4 The Monitoring and Assessment Plan Will Help Keep Valley Water on Track

A primary purpose of the Master Plan is to inform investment decisions. Therefore, a critical piece of the plan is to monitor and report on demands, supplies, and the status of projects and programs in the Master Plan so the Valley Water Board can use that information in its annual strategic planning sessions, which inform the annual water rate setting process, Capital Improvement Program (CIP), and budget processes. Monitoring will identify where adjustments to the Master Plan might be needed to respond to changed conditions. Such adjustments could include accelerating or delaying projects due to changes in the demand trend, changing projects due to implementation challenges, adding projects due to lower than expected supply trends, etc. This chapter presents the Master Plan's Monitoring and Assessment Plan (MAP) for keeping the Ensure Sustainability Strategy on track.



The road to water supply reliability has many obstacles. The MAP will help keep Valley Water on track. Graphic courtesy of Alameda County Water District.

### 4.1 The Master Plan Will be Implemented over the Next 20 Years

The first part of the MAP is the planned schedule for implementation of the Master Plan projects. The schedule is based on Valley Water's current understanding of project schedules, yields, and costs. Table 8 summarizes the schedule for constructing/implementing the various projects and programs in the Master Plan. In addition, each of the projects has its own detailed project plan and is reported on at Valley Water Board committee meetings. The project summaries are in Appendix D. Significant milestones and risks and uncertainties for the individual projects and programs are discussed below.

#### 4.1.1 Delta Conveyance Project

The Delta Conveyance Project would help secure Delta-conveyed supplies. The effort, previously known as the California WaterFix has been in planning for over a decade. An Environmental Impact Statement/Environmental Impact Report (EIS/EIR) was completed on a two-tunnel project, but the project has been revised to a single tunnel and will require new environmental analysis. The project will need to secure permits, resolve legal issues, and secure financing.

**Table 8. Implementation Schedule**

Project	Now – 2024	2025 – 2029	2030 – 2034	2035-2039
<b>Delta Conveyance Project</b>	<ul style="list-style-type: none"> <li>• Permitting</li> <li>• Design</li> <li>• “Validation Action”</li> </ul>	Construction	Construction	Operation
<b>Additional Conservation &amp; Stormwater Projects and Programs</b>	<ul style="list-style-type: none"> <li>• Continue implementing stormwater rebates and graywater program</li> <li>• Design and begin implementing AMI program</li> <li>• Work with jurisdictions to adopt Model Ordinance</li> <li>• Develop Flood-Managed Aquifer Recharge pilot project</li> <li>• Monitor centralized stormwater capture projects</li> </ul>	<ul style="list-style-type: none"> <li>• Continue implementing stormwater rebates, graywater program, AMI</li> <li>• Support implementation of Model Ordinance</li> <li>• Develop leak repair incentive program</li> <li>• Design Flood-Managed Aquifer Recharge and centralized stormwater capture project(s)</li> </ul>	<ul style="list-style-type: none"> <li>• Continue implementing stormwater rebates, graywater program, AMI</li> <li>• Support implementation of Model Ordinance</li> <li>• Implement leak repair incentive program</li> <li>• Design and construct Flood-Managed Aquifer Recharge and centralized stormwater capture project(s)</li> </ul>	<ul style="list-style-type: none"> <li>• Continue implementing stormwater rebates, graywater program, AMI, leak repair incentive program, and Flood-Managed Aquifer Recharge and centralized stormwater capture project(s)</li> <li>• Support implementation of Model Ordinance</li> <li>•</li> </ul>
<b>Potable Reuse Program</b>	<ul style="list-style-type: none"> <li>• Complete Countywide Reuse Plan</li> <li>• MOU(s) with wastewater provider (s)</li> <li>• Select P3 entity</li> <li>• EIR</li> <li>• Design</li> </ul>	Construction	Operation	Operation
<b>Pacheco Reservoir Expansion</b>	<ul style="list-style-type: none"> <li>• EIR/Feasibility Study</li> <li>• Permitting</li> <li>• Planning and Design</li> </ul>	Construction	Operation	Operation
<b>Transfer Bethany Pipeline</b>	<ul style="list-style-type: none"> <li>• EIR/Feasibility Study</li> <li>• Permitting</li> <li>• Planning, Design, and Construction</li> </ul>	Operation	Operation	Operation
<b>South County Recharge</b>		Planning, Design, and Permitting	Construction	Operation

The benefits of the project to Valley Water's CVP supplies are unclear, because sufficient CVP participation in the project has not been secured and the project may only secure State supplies.

Other projects that could potentially help secure Delta-conveyed supplies include Sites Reservoir, long-term transfers of SWP contract supplies, and other long-term transfer and exchange agreements. Valley Water will continue to monitor these opportunities.

#### **4.1.2 Additional Conservation and Stormwater Projects and Programs and Programs**

The Additional Conservation and Stormwater Projects and Programs and Programs will reduce water demands by about 10,000 AFY and increase natural groundwater recharge by about 1,000 AFY when fully implemented by the end of the planning horizon. Three of the projects – rain garden rebates, rain barrel/cistern rebates, and graywater program expansion have already been implemented. Implementation plans and potential issues for the remaining elements are summarized below.

- **Advanced Metering Infrastructure (AMI):** Valley Water is currently partnering with the Bay Area Water Supply and Conservation Agency on a study that will identify each water retailer's metering and related system, data gaps, and potential for collaborative procurement for AMI as an option for the region. This research, along with lessons learned from the pilot studies funded by Valley Water's Water Conservation Research Grant Program (funding through Safe, Clean Water), will help inform the direction of a future AMI Program, so that it can be as cost effective and as impactful as possible. Valley Water is planning to complete program development, in collaboration with retailers, before the end of 2019. The key issue that needs to be resolved is investor-owned utility concerns about cost distribution.
- **Leak Repair Incentives:** Valley Water will implement a customer-side leak repair incentive program after studying AMI results, in coordination with the water retailers.
- **Graywater Rebate Program Expansion:** Expand the District's existing rebate program for laundry-to-landscape graywater systems. Potentially could include a direct installation program and/or rebates for graywater systems that reuse shower and sink water.
- **Rain Barrels, Rain Gardens, and Cistern:** Initiates a Valley Water rebate program to incentivize the installation of rain barrels and cisterns, and the construction of rain gardens in residential and commercial landscapes.
- **Model Water Efficiency New Development Ordinance:** The Model Water Efficiency New Development Ordinance has been finalized. The ordinance has the following main requirements on new development:
  - Require hot water recirculation for single-family development;



*Graywater from clothes washers can be used to water fruit trees, shrubs, vines, and some vegetables.*

- Pre-plumb all new single-family development for graywater collection, treatment, and redistribution;
- Pre-plumb all new multi-family and non-residential development for alternative water sources;
- Mandate reuse water connections for common areas in HOA developments; and
- Outlaw the sale of non-compliant fixtures.

Valley Water will begin working with all the county's jurisdictions on adoption in 2019. Valley Water's role will be to encourage ordinance adoption and implementation and provide technical assistance. One challenge with getting jurisdictions to adopt the policy is concern about imposing additional requirements on new development. This concern could be offset in jurisdictions that are developing climate action plans, because model ordinance implementation would reduce energy use and greenhouse gas emissions.

- Flood-Managed Aquifer Recharge (Flood-MAR): Valley Water is currently working to develop a pilot program for capturing and recharging stormwater on open space, a process referred to as Flood-MAR. The pilot program will help identify and develop strategies for collaborating with private land owners and other agencies, assessing appropriate cost-sharing amounts, and evaluating the groundwater benefit of Flood-MAR to Santa Clara County residents. The work plan is scheduled for completion in 2019.
- Centralized Stormwater Capture Projects: Includes development of two centralized stormwater capture projects in northern Santa Clara County. Centralized stormwater capture projects capture stormwater from multiple parcels for recharge in a single location and/or are municipal projects, including "green streets" projects. The Santa Clara Basin Storm Water Resources Plan completed in December 2018 identified potential projects throughout northern Santa Clara County. These projects would likely be partnerships with other jurisdictions and require outside funding, so their schedules are yet to be determined. Valley Water will continue to track project opportunities through our participation in the Santa Clara Valley Urban Runoff Pollution Prevention Program. In addition, Valley Water is continuing planning for the Upper Penitencia Creek flood protection project, which could include some stormwater retention components.



*Green infrastructure and stormwater capture can provide multiple benefits, including improved water quality, reduced runoff, and groundwater recharge.*

The greatest risks and uncertainties with water conservation programs is the level of active participation by residents, businesses, and governments. This risk is mitigated by the fact that new technologies and standards provide for currently unforeseen opportunities. The greatest risk for implementing stormwater projects is finding willing partners for projects that are cost-effective for Valley Water's water supply program. This risk is somewhat mitigated by regulatory requirements for stormwater management and green infrastructure that will provide water supply benefits.

#### **4.1.3 Potable Reuse Program**

The Ensure Sustainability Strategy includes a Potable Reuse Program to increase drought supplies, adapt to climate change, and manage risks to imported water supplies. Valley Water is completing a Countywide Water Reuse Master Plan (Reuse Plan) that will identify a preferred mix of non-potable and potable reuse, reverse osmosis concentrate management strategies, and different alternatives for achieving the 24,000 AFY of reuse. The placeholder for the Potable Reuse Program is an indirect potable reuse project at the Los Gatos Ponds.



*Reverse osmosis is one step in the advanced treatment process for purified wastewater.*

Some of the challenges and uncertainties with the project are securing a source of wastewater, reverse osmosis concentrate management, using a public-private partnership (P3) procurement for the first time, timing of regulations for direct potable reuse, and determining the mix of non-potable and potable reuse that best meets countywide interests. Near-term milestones include executing an agreement (or agreements) with a wastewater provider (or providers), selecting a P3 entity, and preparing a draft EIR.

Other projects that could help achieve the 24,000 AFY of reuse include groundwater recharge at alternative locations than Los Gatos Ponds, groundwater injection wells, augmenting drinking water treatment supplies with purified water (direct potable reuse), expanded non-potable reuse, Regional Desalination/Brackish Water Treatment, and the Refinery Recycled Water Exchange.

#### **4.1.4 Pacheco Reservoir Expansion**

The expanded Pacheco Reservoir would optimize the use of existing supplies by increasing in-county storage. Project planning is underway, but several significant milestones need to be achieved before January 1, 2022 to remain eligible for State funding. These milestones include completing a feasibility study, preparing a draft EIR, and determining non-State funding. Risks and uncertainties include potentially significant environmental and cultural resource impacts, streamflow requirements for fisheries, and water rights.

Alternative projects that Valley Water will monitor and could provide similar benefits include expanding existing in-county reservoirs, Lexington Pipeline, and Los Vaqueros Reservoir Expansion.

#### **4.1.5 Transfer-Bethany Pipeline**

Transfer-Bethany Pipeline, which is one element of the larger Los Vaqueros Reservoir Expansion Projection, would optimize the use of existing supplies and increase operational flexibility by enabling Valley Water to move water from Contra Costa Water District's intakes in the Delta to Valley Water's system without relying on south-of-Delta CVP and SWP pumps. This project is subject to the same State



requirements for funding as Pacheco, but the Los Vaqueros feasibility and environmental documents are nearly complete. However, the project currently involves 9 local agency partners, so project financing and operating agreements will be complex and water rights changes will be required.

Lexington Pipeline would serve as an alternative project which Valley Water will monitor, it would increase operational flexibility but not provide alternative Delta-conveyed supply diversion points.

#### 4.1.6 South County Recharge

South County recharge optimizes the use of existing supplies by increasing groundwater recharge capacity in the Llagas Subbasin. Planning for this project is currently scheduled to begin closer to 2030,



*One option for increasing South County recharge is to extend the Madrone Pipeline to Morgan Hill's Butterfield Channel.*

so there are no near-term milestones. Alternative projects that Valley Water will continue to consider include expanding local reservoirs or a South County Water Treatment Plant.

#### 4.1.7 Other Plans and Projects

Valley Water has multiple plans and programs that support implementation of the Ensure Sustainability Strategy and Master Plan, including the Groundwater Management Plan, Asset Management Plan, Recycled and Purified Water Program, Imported Water Program, and Dam Safety Program. Implementing these plans and programs is critical to securing existing supplies and infrastructure consistent with the Ensure

Sustainability Strategy. In addition, the following activities support implementation of the Master Plan:

- **Demand Projection Update:** Valley Water is reviewing its current demand projection and anticipates updating the projection in 2020 to update the demand modeling methodology and to account for actual water use following the 2012 to 2016 drought.
- **Groundwater Recharge Assessment:** This special study will identify strengths, weakness, opportunities, and threats associated with Valley Water's groundwater recharge program. It will identify potential future projects for maintaining or increasing recharge capacity under a changed climate, increased regulations on instream operations, and potential Sustainable Groundwater Management Act requirements. Projects could include additional offstream recharge ponds, additional stormwater capture projects, and Flood-Managed Aquifer Recharge.
- **Ongoing Project Participation:** Valley Water will continue to track and participate in projects that could serve as alternatives to the Master Plan projects, including Los Vaqueros Reservoir Expansion, Refinery Recycled Water Exchange, Regional Desalination/Brackish Water Treatment, Sites Reservoir, and long-term transfers of imported water contracts.
- **Coordination with Retailers:** Valley Water will continue to coordinate with retailers to follow groundwater pumping and treated water demand.

## **4.2 Other Policies, Plans, and Programs May Affect Implementation**

The second step of the MAP is to manage unknowns and risks through regular monitoring and assessment. Master Plan monitoring and assessment will build on regular project reports and the annual water supply outlook and look at how different deviations from the plan affect the long-term water supply reliability outlook. Staff will also evaluate how changing external factors such as changes in policy, regulations, and scientific understanding affect the long-term water supply reliability outlook. This section describes some of the activities, beyond monitoring the Master Plan projects and alternative projects.

### **4.2.1 Making Conservation a Way of Life**

The California legislature and governor passed Senate Bill 606 (Hertzberg) and Assembly Bill 1668 (Friedman) into law in 2018 to improve water conservation and drought planning. Pursuant to the legislation, DWR and the State Water Resources Control Board (State Water Board) are developing new standards for indoor residential water use; outdoor residential water use; commercial, industrial, and institutional water use for landscape irrigation with dedicated meters; and water loss. Retail urban water supplies will be required to stay within annual water budgets based on these standards for their service areas. The methodologies for determining the annual water budgets are still being developed, so it is unclear how the standards may affect Valley Water's long-term water supply reliability outlook. Valley Water already has aggressive water conservation targets of 99,000 AFY of savings by 2030 and 109,000 AFY of savings by 2040. However, the new standards could further drive down water use and reduce or postpone the need for some Master Plan projects.

### **4.2.2 Fisheries and Aquatic Habitat Collaborative Effort**

The Fisheries and Aquatic Habitat Collaborative Effort (FAHCE) was established to resolve a 1996 complaint with the State Water Resources Control Board over Valley Water's use of water rights in the Stevens Creek, Coyote Creek and Guadalupe River watersheds. In 2003, Valley Water initialed a Settlement Agreement regarding water rights with the Guadalupe-Coyote Resource Conservation District, the California Department of Fish and Wildlife, U. S. Fish and Wildlife Service and National Marine Fisheries Service and a group of nongovernmental organizations, including Trout Unlimited, Pacific Coast Federation of Fishermen's Associations, California Trout, Urban Creeks Council and the Northern California Council of Federation of Fly Fishers. The Settlement Agreement provides a roadmap for resolving the water rights complaint and improving habitat conditions for fish in the Guadalupe River, Coyote Creek, and Stevens Creek watersheds through:



*Stevens Creek after restoration efforts.*

- Modifications to reservoir operations to provide instream flows;
- Restoration measures to improve habitat conditions and provide fish passage; and
- Monitoring and adaptive management.

Valley Water is currently preparing a Fish Habitat Restoration Plan and EIR. These will be used to request water rights modifications and obtain resource agency permits. Then, Valley Water can request that the water rights complaints be dismissed.

The adaptive management element of FAHCE could result in future changes to the water supply operations of Valley Water, but the nature and impact of those changes are yet to be determined.

#### **4.2.3 Bay-Delta Water Quality Control Plan**

The State Water Board recently amended the Bay-Delta Water Quality Control Plan (Bay-Delta Plan) to set flow and water quality objectives for the San Joaquin River and its major salmon bearing tributaries. The amendments could significantly reduce SFPUC's water supply, including deliveries to customers in Santa Clara County, especially during droughts. The flow requirements will not be implemented until the Sacramento River and Delta parts of the Bay-Delta Plan are completed and an implementation program is developed. The Sacramento River and Delta updates could impose even more stringent flow requirements on the Sacramento River and its tributaries and affect Valley Water's Delta-conveyed supplies.



*The Delta holds historic, cultural, economic, and environmental significance.*

Valley Water filed a lawsuit in January challenging the flow requirements on the San Joaquin River, asking the court to determine whether the state has taken proper action to require increased flows for fish and wildlife in the San Joaquin, Tuolumne, Stanislaus and Merced rivers. While the complaint moves through the courts, Valley Water will continue to negotiate with state officials and other agencies to address our interests, especially retaining sufficient water supply during droughts and supporting effective measures to

sustain healthy native fish populations in the Delta and its tributaries.

#### **4.2.4 SFPUC Contracts with San José and Santa Clara**

The cities of San José and Santa Clara have interruptible contracts with SFPUC. To make San José and Santa Clara permanent customers, SFPUC needs to secure sufficient supplies to meet the cities' contract amounts. Valley Water and SFPUC are partners in several efforts that could enable SFPUC to grant San José and Santa Clara permanent contract status, including Los Vaqueros Reservoir Expansion Project, Regional Desalination/Brackish Water Treatment, and a pre-feasibility study on potable reuse. Valley Water will continue to collaborate with SFPUC and the cities on efforts to make the cities permanent SFPUC customers.

#### 4.2.5 Land Use Planning

Land use decisions can have significant impacts on demands and water supplies. Decisions to build up rather than out can maintain natural groundwater recharge and reduce per person water use. Decisions to require water use efficiency measures beyond those mandated in state law can also reduce water use and encourage the use of alternative water supplies.

Enforcing requirements for reuse water connections and water-efficient landscapes can reduce demands on potable supplies. Aggressive implementation of stormwater requirements can increase groundwater recharge, as well as provide water quality, flood protection, and environmental benefits. In addition to working with land use agencies to implement the Model Water Efficient New Development Ordinance, Valley Water is developing a plan to better coordinate with jurisdictions on land use and water supply planning.



*Low impact development includes sustainable land use practices.*

#### 4.2.6 Climate Change

The impacts of climate change are already being felt in the Bay Area and northern California and these changes are projected to increase significantly in the coming decades. Valley Water needs to continue to monitor and improve understanding of climate change to better incorporate climate change impacts into modeling of future conditions. Valley Water will continue to review and incorporate California Department of Water Resources projections when considering the effects on imported water supplies, which are currently based on near-term climate and growth conditions. Additionally, since Valley Water's local surface water supply projections are based on historic hydrology and demand projections do not utilize a temperature factor, future evaluations would benefit from incorporating additional climate change science and projections. Valley Water will consider these areas and others for more refined analyses of climate change impacts as critical components to the MAP and future Master Plan updates.

#### 4.2.7 One Water Plan

Valley Water is developing the One Water Plan as a roadmap for integrated water resource planning on a watershed scale in Santa Clara County. It brings state, regional, and local policies together into a countywide framework with goals and objectives for Valley Water's three mission components of flood protection, stream stewardship, and water supply. One Water seeks to provide guidance from an overarching perspective and look for opportunities to further protect and enhance water resources.

The One Water Plan is a long-term endeavor. It offers a framework for incremental, intentional, and measurable improvement in water resources management and watershed conditions short-term and over decades. Within this vision, however, One Water will continue to operate under the



current commitments, regulations, restrictions and challenges that drive Valley Water's day-to-day operations.

### **4.3 Annual Reporting Will Help Keep the Ensure Sustainability Strategy on Track**

The third step of the MAP is to prepare at least annual reports on Master Plan implementation that consider the following elements:

- Demand trends based on actual use, climate change science, and policy and regulatory changes;
- Supply trends based on actual supplies, climate change science, policy and regulatory changes;
- Project status, including current scope, schedule, and budget;
- Funding;
- Risk and uncertainties; and
- Stakeholder input.



*The Valley Water Board of Directors sets policy to provide Silicon Valley safe, clean water for a healthy life, environment, and economy.*

The annual reports will include recommended changes to the Master Plan projects, as appropriate, and how those changes would affect water supply reliability, costs and groundwater production charges, risks, and relationships between projects. The annual reports will be presented to the Valley Water Board of Directors in the summer or fall, so the report can help inform Board's annual strategic planning process and subsequent budget and water rates processes.

The implementation schedule in Section 4.1 will be updated at least annually based on Board direction. This annual cycle will enable Valley Water to adjust the Master Plan projects based on changes to assumptions, funding, supplies,

demands, and infrastructure. It is anticipated that major updates to the Master Plan will occur about every five years, to precede the Urban Water Management Plan updates. The annual reviews and periodic updates will help ensure the Master Plan is living document and continues to provide a framework for efficient and effective investment in water supply reliability in an environment of uncertainty.

Valley Water cannot forecast the future and identify a specific response for every potential water supply scenario. The path we are on today will look different in the future, near and distant. A balanced, diverse, and sustainable water supply will help us adapt to future challenges. A strong MAP will help us stay on top of challenges and uncertainties and our options for managing them.

## 5 References

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Santa Clara Valley Water District  
Draft Water Supply Master Plan 2040

Appendices

- A. Cost Analysis Methodologies
- B. Demand Projection Methodology
- C. Model Description and Assumptions
- D. Project List
- E. Agenda Package
- F. Planning Objectives

The Master Plan appendices can be found on our website at:

<https://www.valleywater.org/your-water/water-supply-planning/water-supply-master-plan>

- Select the second bulleted link “Draft Water Supply master Plan 2040: appendices only.”



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-----Original Message-----

From: Mary Mak <[marmak@hotmail.com](mailto:marmak@hotmail.com)>

To: [patrickskwok@aol.com](mailto:patrickskwok@aol.com) <[patrickskwok@aol.com](mailto:patrickskwok@aol.com)>

Sent: Sun, Jul 14, 2019 10:26 pm

Subject: Opposition to the Regnart Creek Trail

Hi Patrick,

The objective is for the Water District to stop funding the construction of the Regnart Creek Trail leading to the cancellation of the proposed project and ultimately never to bring up this proposed Trail again in the future.

Thanks for your help,

Mary Mak

(408)996-0128

Mary Mak's Speech

at Council Meeting on Regnart Creek Trail  
on May 21, 2019 Evening

Good Evening, My name is Mary Mak, my presentation will be longer than 3 minutes and with the consent of David Lau and Fari Aberg, I will be taking over their time slots as well.

The specifications of the Proposed Regnart Creek Trail of 0.8 miles long and about 10 to 12 feet wide will have no gates, no rails at the Creek side, no lighting at night. This Trail intersects with a commuter street at South Blaney Avenue. It allows pedestrians with or without dogs and pets, and bicyclists travelling in opposite directions.

The 10 to 12 feet wide Trail subtracting the shoulder space will only provide about 8 feet of usable land for traffic. With up and down traffic, pedestrians and bicyclists can easily be knocked off the Trail into the 20 feet deep Creek below. Parent pushing his/her baby in a stroller can slip off the Trail especially in rainy weather, pedestrians texting while walking can walk down the Creek, and people on Skate Boards and Scooters can fall into the Creek.

Pedestrians and children rushing or cannot slow down at the intersection will be hit by oncoming cars. Houses that face or

adjacent to the intersection will have Sherriff's cars, ambulances, fire engines, with sirens wailing and emergency lights flashing, parked in front of them. The Proposed Regnart Creek Trail is accident prone.

Dogs and pets will poop and pee on the Trail, there will be music, parties, noises, there may also be homeless camping, hanky-panky, drug trafficking, gang fights, etc. on the Trail and above all, there will be graffiti on the fences and walls, littering and dumping in the Creek.

For graffiti, City will have to constantly hire a crew to paint the fences and walls.

Littering of food products in the Creek will decay and emit smell, proliferate the population of mice, rats, moles, gophers, rodents, lizards, frogs, etc. and increase the growth of insects such as ants, termites, flies, mosquitoes, spiders, etc. Many of these animals will tunnel into our backyard, front yard and houses and insects will spread diseases.

There are many bio non-degradable and un-decomposable products such as plastics, aluminum cans, glass bottles, bottle caps, snack packages, candy wrappers, chewing gum, bubble gum, foam, rubber, strings, ties, etc. sitting in the Creek forever unless City hires a crew to climb down the Creek to clean up.

The Creek is a dump site for building materials such as wood, iron, metal, rods, toilet bowls, shower materials, blinds, glass, porcelain, etc.

When toxic and hazardous wastes, oil, motor oil, paint are dumped into the Creek, rain and flood water can carry them far and wide. Cleanup of toxic materials on a rugged terrain and steep slope is expensive as the cleanup crew will have to wear special gear and use special equipment, climb down to clean up the Creek inch by inch.

A Trail should serve several purposes.

A Trail can be a shortcut from point A to point B for commute. Running in parallel with Regnart Creek, there are La Mar Drive and Rodrigues Avenue with one row of houses separating the Creek and the streets, there is no shortcut. Furthermore, there is a proposed loop going in and out of Wilson Park, the distance of the Trail is even longer than the Streets.

A Trail can be for exercise or recreation but Regnart Creek is only 0.8 mile long and is too narrow for anyone to even walk briskly without bumping into one another.

A Trail can be scenic but Regnart Creek offers only backyard fences of houses on one side and a 20 feet deep Creek with slope, cliff, rocks, boulders and weeds on the other side. This is not a Trail on the mountain where you can see the valley and plain below or a Coastal Trail where you can watch the rolling ocean splashing against a seashore and hear the sound of waves.

Arson and an unextinguished cigarette butt can lit up the dry weeds, our fences and burn our houses to the ground.

Apart from Vandalism and Burglary, other Crimes will go up as well. Drug Dealers would love this Trail for Drug Trafficking as in desperation, they can throw drugs, needles, guns, and weapons over the fence into our backyard. They can climb over the fence, land and ruin our trees, shrubs and flower beds and hurt the residents.

Currently, many of the houses on the Creek have experienced vandalism with smashed windows and broken sliding door panes. We did all repairs and replacements from our own pockets to prevent rising premiums for our Home Owner Insurance. When the Creek gates are open, there will be very high risks of Vandalism, Burglary and Fire, at least 84 Homes along the Creek will eventually lose our Home Owner Insurance coverage.

I will let others, who have spent time in research and studies, to talk about the noise volume, sounding wall, and decrease in property value along the Trail.

As mentioned, the Proposed Regnart Creek Trail is accident prone. When accidents happened, the injured will be suing the Homeowners in the vicinity and we will be suing each other for negligence, non-compliance, non-conformance, violations of the law and liabilities. We are not the only ones to get sued, City of Cupertino will also be sued. City Hall will have to find budget to hire more City Attorneys to deal with the increasing number of injury cases, your Meeting Agenda will be very long and you will not be able to go home early. At the same time, City Hall will also need to find budget to hire more Sheriffs and Security Personnel to patrol and to enforce the law.

I have lived in this neighborhood for 30 years. All these years, our neighbors are very supportive of each other, we

upkeep each other's parents, we care and discipline each other's children. We are not just neighbors and friends, we are one big happy family. But on the day of the Walkshop, you could see angry faces and hear disgruntle voices. This Proposed Regnart Creek Trail is tearing us apart and shattering our bonds.

When we hear noises at night after the Trail is built, we will be jumping out of bed, turn on the lights, look inside and outside of our houses, search our backyard, front yard, fence, Trail, Creek as well as our neighbors' houses. We will have sleepless nights and eventually, the residents of these 84 homes will suffer hypertension, nervous breakdown, heart attack and other mental and health related issues. Even with pedestrians walking constantly behind our back, there is no Peace of Mind.

This narrow strip of land is never meant to be for a Trail, it is for the Water District to service the water way and control the flood water. If the Creek is filled with water, should we allow children and adults to swim in the Creek to fully utilize both Land and Water?

I also feel sorry for my neighbors who live on De Palma Lane that there is a proposed fence built right at their face.

If the Trail is built, Regnart Creek Trail should be renamed to Deplorable Lane.

For the children who are rallying to have the Trail, you won't find shortcut to go to school, home or library with this Trail but you will be experiencing mugged, robbed, raped, child molestation, indecent exposure, kidnapped, killed, hurt with contaminated needles or become drug addicts. When in danger, there is no place to hide or escape in the Trail except to jump into the 20 feet Creek below into your injuries or death, your body can be found the next day, and your loved ones will be visiting you in a hospital or mourning for you at a funeral home. I do not understand why you choose to walk in danger at the back of houses in a Trail but instead you can walk safely in front of houses on lighted streets and on well constructed City built pavements.

We can ignore the business and Bicycle Store Owners who rally the Trail as their interest is for their own profits and not the benefits of the residents.

These are not just Privacy, Safety and Security issues, these are also Health and Environmental issues. These are also



matters of life and death and the struggle to live and survive for the residents in these 84 homes. Our lives will be forever changed by the Trail.

We need to consider the consequences and impact of our decision and be responsible for our actions. Nobody with sound judgement and right frame of mind would approve of this Trail.

The Services in Cupertino are never adequate. We do not have basics such as Police Department, DMV, Social Security Administration Office, Hospital, mass transit system, etc. When we need a Driver License or apply for a Read ID, we need to go to other cities to get these services but we have multi-billion dollar Company Apple Headquarters as our neighbor that no other cities have. For more than a year, many men and women hours of both City Hall staff and residents of Cupertino were spent on discussing an unnecessary millions of dollar Trail. We should channel our time, energy and resources wisely to be constructive and to build a better infrastructure for the residents of Cupertino and for generations to come. Thank you!