

March 28, 2018

MEETING NOTICE & REQUEST FOR RSVP

TO: SANTA CLARA VALLEY WATER COMMISSION

<u>Municipality</u>	<u>Representative</u>	<u>Alternate</u>
City of Campbell	Hon. Susan M. Landry	Hon. Rich Waterman
City of Cupertino	Hon. Darcy Paul	Hon. Steven Scharf
City of Gilroy	Hon. Peter Leroy-Muñoz	Hon. Roland Velasco
City of Los Altos	Hon. Lynette Lee Eng	Hon. Mary Prochnow
Town of Los Altos Hills	Hon. Courtenay Corrigan	
Town of Los Gatos	Hon. Barbara Spector	Hon. Steve Leonardis
City of Milpitas	Hon. Garry Barbadillo	Tony Ndah
City of Monte Sereno	Hon. Evert Wolsheimer	Hon. Curtis Rogers
City of Morgan Hill	Hon. Rich Constantine	Hon. Larry Carr
City of Mountain View	Hon. Lisa Matichak	Hon. Pat Showalter
City of Palo Alto	Hon. Adrian Fine	Hon. Tom DuBois
City of San Jose	Hon. Lan Diep	Kerrie Romanow
City of Santa Clara	Hon. Debi Davis	Hon. Patrick Kolstad
City of Saratoga	Hon. Rishi Kumar	Hon. Howard Miller
City of Sunnyvale	Hon. Nancy Smith	Hon. Larry Klein
Santa Clara County Board of Supervisors	Hon. Mike Wasserman	Hon. Cindy Chavez
Midpeninsula Regional Open Space District	Hon. Yoriko Kishimoto	Hon. Jed Cyr
Santa Clara County Open Space Authority	Hon. Mike Flaughner	Hon. Calvin Gill

The regular meeting of the Santa Clara Valley Water Commission is scheduled to be held on Wednesday, **April 11, 2018, at 12:00 p.m.**, in the Headquarters Building Boardroom, located at the Santa Clara Valley Water District, 5700 Almaden Expressway, San Jose, California. Lunch will be provided.

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 <http://www.valleywater.org/About/WaterCommission.aspx>



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.

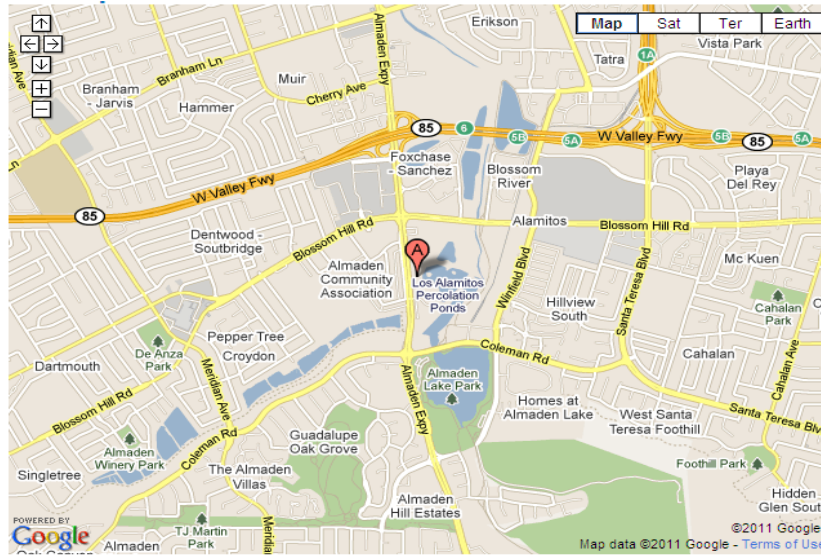
Further, a quorum must be present on the day of the scheduled meeting to call the meeting to order and take action on agenda items.

Members with two or more consecutive unexcused absences will be subject to rescinded membership.

Please confirm your attendance **no later than Friday, April 6, 2018; noon** by contacting Vicki Elam at 1-408-630-3056, or velam@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

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Commission Officers
Hon. Yoriko Kishimoto, Chair
Hon. Debi Davis, Vice Chair

Board Representative
Barbara Keegan, Alternate
Richard P. Santos, Board Representative
John L. Varela, Board Representative

AGENDA

SANTA CLARA VALLEY WATER COMMISSION

WEDNESDAY, APRIL 11, 2018

12:00 p.m. – 2:00 p.m.

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

Time Certain:

12:00 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 Commission 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 – January 24, 2018, meeting.
4. **Action Items**
 - 4.1 Review and Comment to the Board on the Fiscal Year 2018-19 Proposed Groundwater Production Charges (Darin Taylor)
Recommendation: Provide comment to the Board in the implementation of the District's mission as it applies to staff's groundwater production charge recommendation for FY 2018–19.
 - 4.2 Climate Change Mitigation – Carbon Neutrality by 2020 Program Update (Kurt Arends)
Recommendation: This is a discussion item and the Commission may provide comments if applicable, however no action is required.
 - 4.3 Study of the District's Groundwater Services Areas ("Zones of Benefit") (Garth Hall)
Recommendation: This is a discussion item and the Commission may provide comments if applicable, however no action is required.
 - 4.4 Review Santa Clara Valley Water Commission Work Plan, the Outcomes of Board Action of Commission Requests and the Commission's Next Meeting Agenda (Commission Chair)
Recommendation: Review the Commission work plan to guide the committee's discussions regarding policy alternatives and implications for Board deliberation.

5. **Clerk Review and Clarification of Commission Requests to the Board**

This is a review of the Commission's Requests, to the Board (from Item 4). The Commission may also request that the Board approve future agenda items for Commission discussion.

6. **Reports**

Directors, Managers, and Commission 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.

6.1 Director's Report

6.2 Manager's Report

6.3 Commission Member Reports

7. **Adjourn:** Adjourn to next regularly scheduled meeting at 12:00 p.m., **July 25, 2018**, 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 Headquarter 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 commission meetings. Please advise the Clerk of the Board office of any special needs by calling 1-408-630-2277.

Santa Clara Valley Water Commission's Purpose and Duties

The Santa Clara Valley Water Commission 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 in the areas of interest to Santa Clara County and the Towns and Cities therein.

The specific duties are:

- Prepare policy alternatives
- Provide comment on activities in the implementation of the District's mission
- 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, Commission members bring to the District their respective expertise and the interests of the communities they represent. In addition, Commissioners may help the Board produce the link between the District and the public through information sharing to the communities they represent.



SANTA CLARA VALLEY WATER COMMISSION MEETING

DRAFT MINUTES

**WEDNESDAY, JANUARY 24, 2018
12:00 PM**

(Paragraph numbers coincide with agenda item numbers)

A rescheduled meeting of the Santa Clara Valley Water Commission (Commission) was held on January 24, 2018, in the Headquarters Building Boardroom, located at the Santa Clara Valley Water District, 5700 Almaden Expressway, San Jose, California.

1. CALL TO ORDER/ROLL CALL

Chair Hon. Yoriko Kishimoto called the meeting to order at 12:02 p.m.

Members in attendance were:

<u>Municipality</u>	<u>Representative</u>	<u>Alternate</u>
City of Campbell	Hon. Susan M. Landry	
City of Cupertino		Hon. Steven Scharf
City of Los Altos	Hon. Lynette Lee Eng	
Town of Los Altos Hills	Hon. Courtenay Corrigan*	
Town of Los Gatos		Hon. Steve Leonardis
City of Milpitas		Tony Ndah
Town of Monte Sereno		Hon. Curtis Rogers
City of Mountain View	Hon. Lisa Matichak	
City of San José	Hon. Lan Diep*	
City of Santa Clara	Hon. Debi Davis	
City of Saratoga	Hon. Rishi Kumar	
City of Sunnyvale		Hon. Larry Klein
County of Santa Clara	Hon. Mike Wasserman	
Santa Clara Open Space Authority	Hon. Mike Flaughar	
Midpeninsula Regional Open Space District	Hon. Yoriko Kishimoto	

Members not in attendance were:

<u>Municipality</u>	<u>Representative</u>	<u>Alternate</u>
City of Campbell		Hon. Rich Waterman
City of Cupertino	Hon. Darcy Paul	
City of Gilroy	Hon. Peter Leroe-Muñoz	Hon. Roland Velasco
City of Los Altos		Hon. Mary Prochnow
Town of Los Gatos	Hon. Barbara Spector	
City of Milpitas	Hon. Garry Barbadillo	
Town of Monte Sereno	Hon. Evert Wolsheimer	
City of Morgan Hill	Hon. Rich Constantine	Hon. Larry Carr
City of Mountain View		Hon. Pat Showalter
City of Palo Alto	Hon. Adrian Fine	Hon. Tom DuBois
City of San José		Kerrie Romanow
City of Santa Clara		Hon. Patrick Kolstad
City of Saratoga		Hon. Howard Miller
City of Sunnyvale	Hon. Nancy Smith	
County of Santa Clara		Hon. Cindy Chavez
Santa Clara Open Space Authority		Hon. Kalvin Gill
Midpeninsula Regional Open Space District		Hon. Jed Cyr

*Commission Member arrived as noted.

Board members in attendance were: Director Richard P. Santos and Director John L. Varela, Board Representatives.

Staff members in attendance were: Glenna Brambill, Rick Callender, Norma Camacho, Raymond Fields, Nina Hawk, Marta Lugo, Anthony Mendiola, Paul Randhawa, and Darin Taylor.

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

There was no one present who wished to speak.

3. APPROVAL OF MINUTES

It was moved by Hon. Mike Wasserman, seconded by Hon. Rishi Kumar, and unanimously carried, to approve the October 25, 2017, Santa Clara Valley Water Commission meeting minutes as presented.

4. ELECTION OF COMMISSION CHAIR AND VICE CHAIR

Chair Yoriko Kishimoto opened the floor for Chair nominations:

It was moved by Hon. Lisa Matichak, seconded by Hon. Lynette Lee Eng to nominate Hon. Yoriko Kishimoto as Chair.

It was moved by Hon. Steven Scharf, seconded by Hon. Mike Wasserman to nominate Hon. Rishi Kumar as Chair.

The nominations were closed. Both nominees spoke to the Commission on their experiences.

The Commission by majority vote, approved Hon. Yoriko Kishimoto as Chair for 2018.

*Hon. Courtenay Corrigan arrived at 12:11 p.m.

Chair Yoriko Kishimoto opened the floor for Vice Chair nominations:
It was moved by Hon. Mike Wasserman, seconded by Hon. Susan M. Landry to nominate Hon. Debi Davis as Vice Chair.

It was moved by Hon. Steven Scharf, seconded by Hon. Steve Leonardis to nominate Hon. Rishi Kumar as Vice Chair.

The nominations were closed. Both nominees spoke to the Commission on their experiences.

The Commission by majority vote, approved Hon. Debi Davis as Vice Chair for 2018.

*Hon. Lan Diep arrived at 12:17 p.m.

5. ACTION ITEMS

5.1 REVIEW AND APPROVED 2017 ANNUAL ACCOMPLISHMENTS REPORT FOR PRESENTATION TO THE BOARD.

Chair Yoriko Kishimoto reviewed the materials as outlined in the agenda item.

It was moved by Hon. Mike Wasserman, seconded by Hon. Debi Davis, and unanimously carried, to approve the 2017 annual accomplishments report for presentation to the Board.

5.2 CIVIC ENGAGEMENT

Mr. Rick Callender introduced Ms. Marta Lugo who reviewed the materials as outlined in the agenda item.

Hon. Lynette Lee Eng, Hon. Mike Flaughner, Hon. Debi Davis, Hon. Rishi Kumar, Hon. Susan M. Landry and Hon. Courtenay Corrigan spoke on the various programs, grants, outreach efforts and homeless issues noted under Civic Engagement.

Mr. Rick Callender and Director Richard P. Santos were available to answer questions.

No action taken.

5.3 REVIEW AND COMMENT TO THE BOARD ON THE FISCAL YEAR 2018-2019 PRELIMINARY GROUNDWATER PRODUCTION CHARGES

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

Hon. Mike Wasserman, Hon. Yoriko Kishimoto, Hon. Mike Flaughner, Hon. Steve Scharf, Director John L. Varela, Director Richard P. Santos, Hon. Susan M. Landry, Hon. Larry Klein and Hon. Rishi Kumar, spoke on the preliminary groundwater production charges process, debt to service, water rates, water supply, drought and CA WaterFix.

Ms. Norma Camacho, Mr. Garth Hall and Director John L. Varela were available to answer questions.

No action taken.

5.4 REVIEW SANTA CLARA VALLEY WATER COMMISSION WORK PLAN, THE OUTCOMES OF BOARD ACTION OF COMMISSION REQUESTS AND THE COMMISSION'S NEXT MEETING AGENDA

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

No action was taken.

6. INFORMATION ONLY ITEMS

6.1 RECEIVE AN UPDATE ON THE DISTRICT'S WINTER PREPAREDNESS

Mr. Raymond Fields was available to answer questions on this agenda item.

Hon. Steve Leonardis left at 1:53 p.m. and did not return.

Hon. Mike Wasserman, Hon. Yoriko Kishimoto, Director John L. Varela and Hon. Mike Flaughner had clarifying questions on the District's Winter Preparedness.

The Commission would like to have this agenda item placed on their July or October meeting.

7. CLERK REVIEW AND CLARIFICATION OF COMMISSION REQUESTS TO THE BOARD

Ms. Glenna Brambill reported there were no items for Board consideration.

8. REPORTS

8.1 Director's Report

Director John L. Varela reported on the following:

- Board Action
- Water Supply
- Flood Protection
- Community Outreach

8.2 Manager's Report

Ms. Norma Camacho reported on the following:

- Resilience by Design Project will be contacting the Commissioners for their suggestions and input

Ms. Nina Hawk reported on the following:

- January 30, 2018, Water Supply Workshop, 1:00 p.m. – 3:00 p.m. held at the District's Headquarters Boardroom
- February 1, 2018, Landscape Summit, 9:00 a.m., held at the District's Headquarters Boardroom

8.3 Commission Member Reports

The Commission has two new alternates:

- Mr. Tony Ndah, City of Milpitas
- Hon. Curtis Rogers, Town of Monte Sereno

Hon. Susan M. Landry reported on the following:

- Friday, February 9, 2018, City of Campbell's Youth Commission is having a job fair, contact Ms. Jenny Bybee, jennyb@cityofcampbell.com or 1-408-866-2778.

9. ADJOURNMENT

Chair Hon. Yoriko Kishimoto adjourned at 2:05 p.m. to the next regular meeting on Wednesday, April 11, 2018, at 12:00 p.m., in the Santa Clara Valley Water District Headquarters Boardroom.

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

Approved:



Committee: Water Commission
Meeting Date: 04/11/18
Agenda Item No.: 4.1
Unclassified Manager: Darin Taylor
Email: dtaylor@valleywater.org
Est. Staff Time: 10 minutes

COMMITTEE AGENDA MEMO

SUBJECT: Review and Comment to the Board on the Fiscal Year 2018-19 Proposed Groundwater Production Charges

RECOMMENDED ACTION:

Provide comment to the Board in the implementation of the District's mission as it applies to staff's groundwater production charge recommendation for FY 2018–19.

SUMMARY:

Staff proposes a 9.7% increase in the North County (Zone W-2) Municipal and Industrial groundwater production charge from \$1,175/AF to \$1,289/AF. The proposal equates to a monthly bill increase for the average household of \$3.92 or about 13 cents a day.

In the South County (Zone W-5), staff proposes a 7.7% increase in the M&I groundwater production charge from \$418/AF to \$450/AF. The proposal equates to a monthly bill increase for the average household of \$1.10 or about 4 cents per day.

Customers in both areas of North and South County may also experience additional charge increases enacted by their retail water providers.

The proposed increases in water charges are necessary to pay for critical investments in water supply infrastructure rehabilitation and upgrades, and the development of future drought-proof supplies, most notably purified water. The Anderson Dam Seismic Retrofit will help ensure public safety and bolster future water supply reliability. The cost projection for the Anderson Dam Seismic Retrofit project has increased to \$550 million since last year due to the discovery of additional vulnerabilities, which will require a near complete removal of the existing dam, and the determination that the dam's spillway needs to be fully replaced as it has some of the same weaknesses that Oroville Dam's spillway had. Additionally, the \$290 million Rinconada Water Treatment Plant upgrade is more than halfway complete, and will extend the plant's service life for the next 50 years as well as increase production capacity up to 25%. Roughly \$229 million is planned to be spent on the state's proposed plan for the California Water Fix, which is anticipated to improve the reliability of the infrastructure through which 40% of the county's water supply is delivered. Lastly, the District is moving forward to forge its first public-private partnership (P3) on a \$1 billion investment for recycled and purified water expansion that would bring up to 45,000 AF of new water supply to the county each year.

The Board is seeking input with regard to staff's groundwater production charge recommendation for FY 2018–19.

BACKGROUND:

Executive Limitation 7.4: A BAO shall “marshal for the Board as many staff and external points of view, issues and options as needed for fully informed Board choices.”

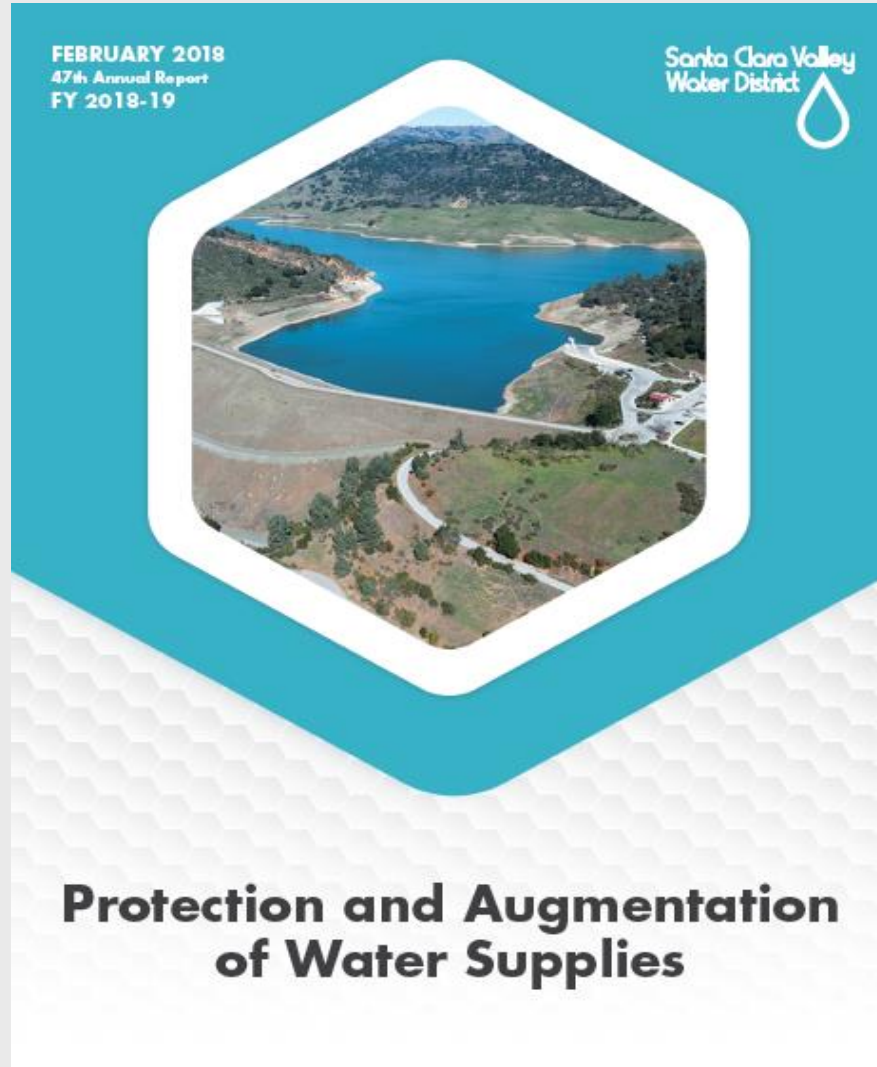
ATTACHMENT(S):

Attachment 1: PowerPoint Presentation

FY 19 Water Charge Recommendations

April 11, 2018



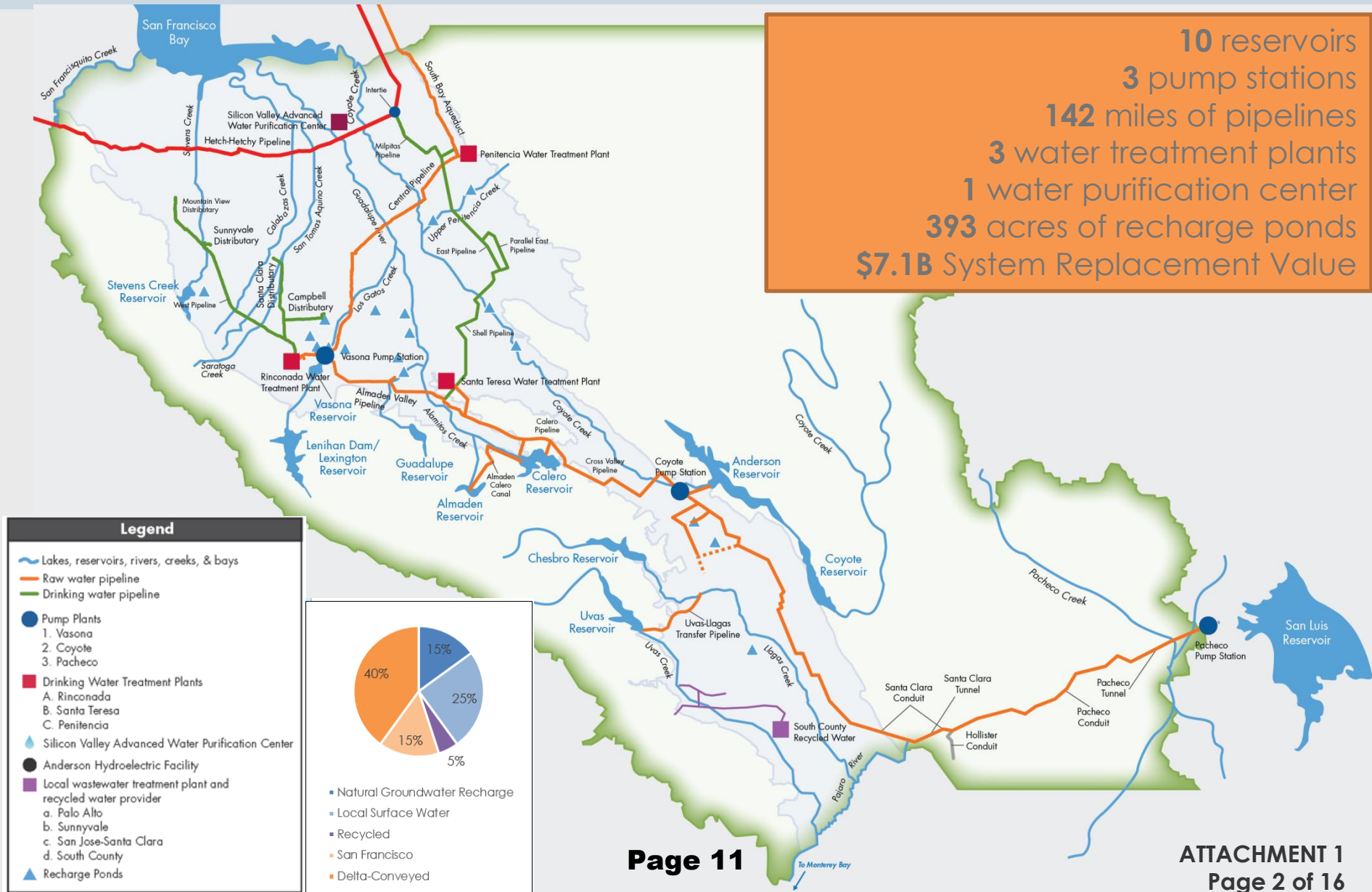


2018 Protection and Augmentation of Water Supplies Report

www.valleywater.org

A comprehensive, flexible water system

10 reservoirs
3 pump stations
142 miles of pipelines
3 water treatment plants
1 water purification center
393 acres of recharge ponds
\$7.1B System Replacement Value



Key Capital Project Funding for FY 19 through FY 28



**Dam Seismic Retrofits/Improvements
\$678 Million
(\$780 Million Total Cost)**



**RWTP Reliability Improvements
\$125 Million
(\$290 Million Total Cost)**



**Expedited Purified
Water Program
(\$1 Billion Total Cost,
via P3 Delivery Method)**

Key Capital Project Funding for FY 19 through FY 28 (cont'd)

- FAHCE Implementation Fund (\$145M placeholder)
- 10 Year Pipeline Rehabilitation (\$98M)
- Vasona Pumping Plant Upgrade (\$20M)



FY 19 Key Assumptions

California Water Fix (CWF):

- ▶ Cost projection based on 7.5% share of SWP-only CWF project
- ▶ State Water Project Tax reliance to be considered when CWF agreements are in place

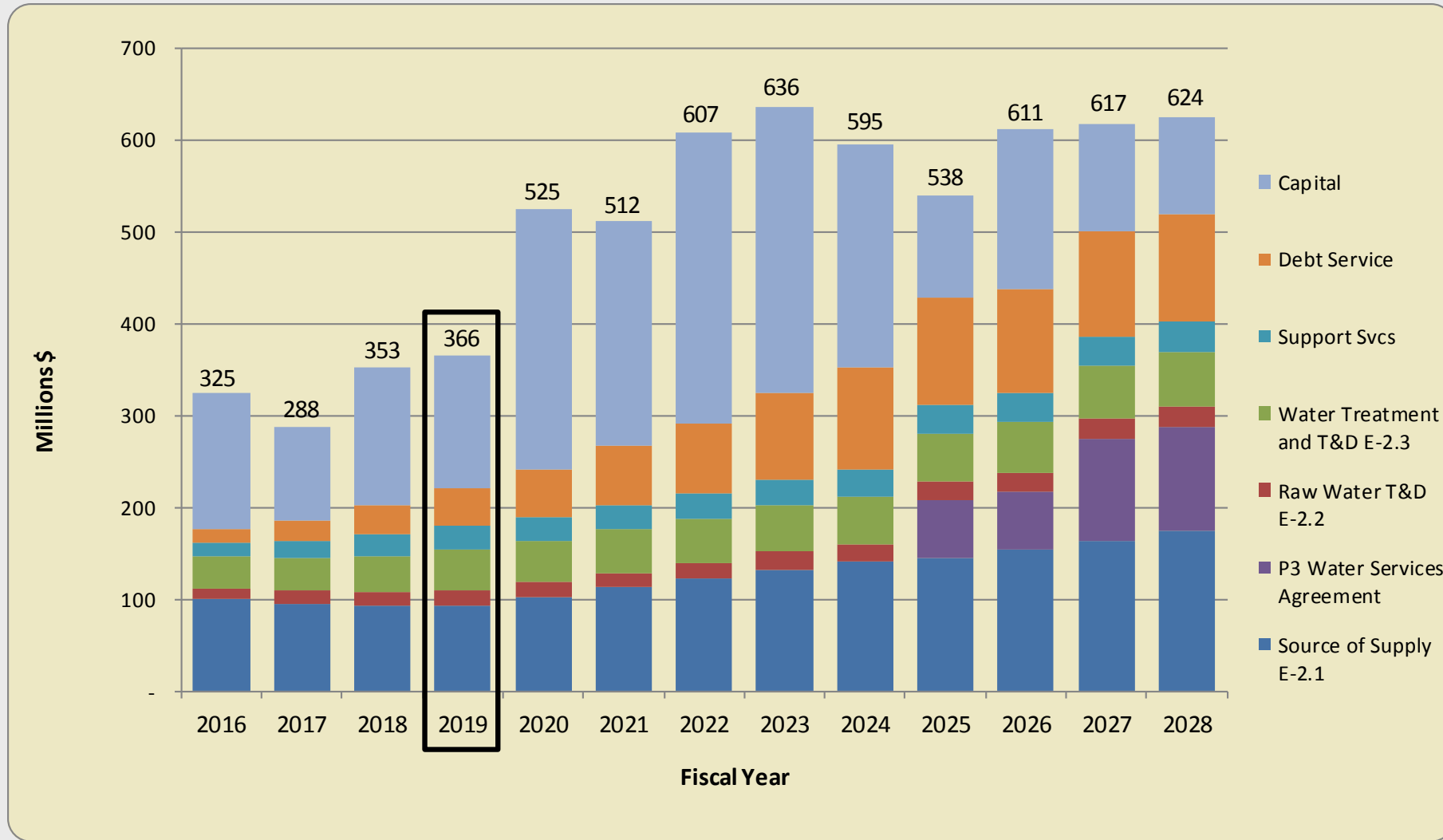
Expedited Purified Water Program:

- ▶ Includes P3 project delivery method for IPR to Los Gatos Ponds to produce 24KAF
 - ▶ P3 cost projection based on \$630M capital project, District contributes 30% “pay as you go”
 - ▶ Includes new P3 reserve at \$4M in FY 19 growing to \$10M by FY 21
- ▶ Includes Long Term Purified Water Program Project to produce incremental 20KAF
 - ▶ P3 cost projection based on \$368M capital project, District contributes 30% “pay as you go”

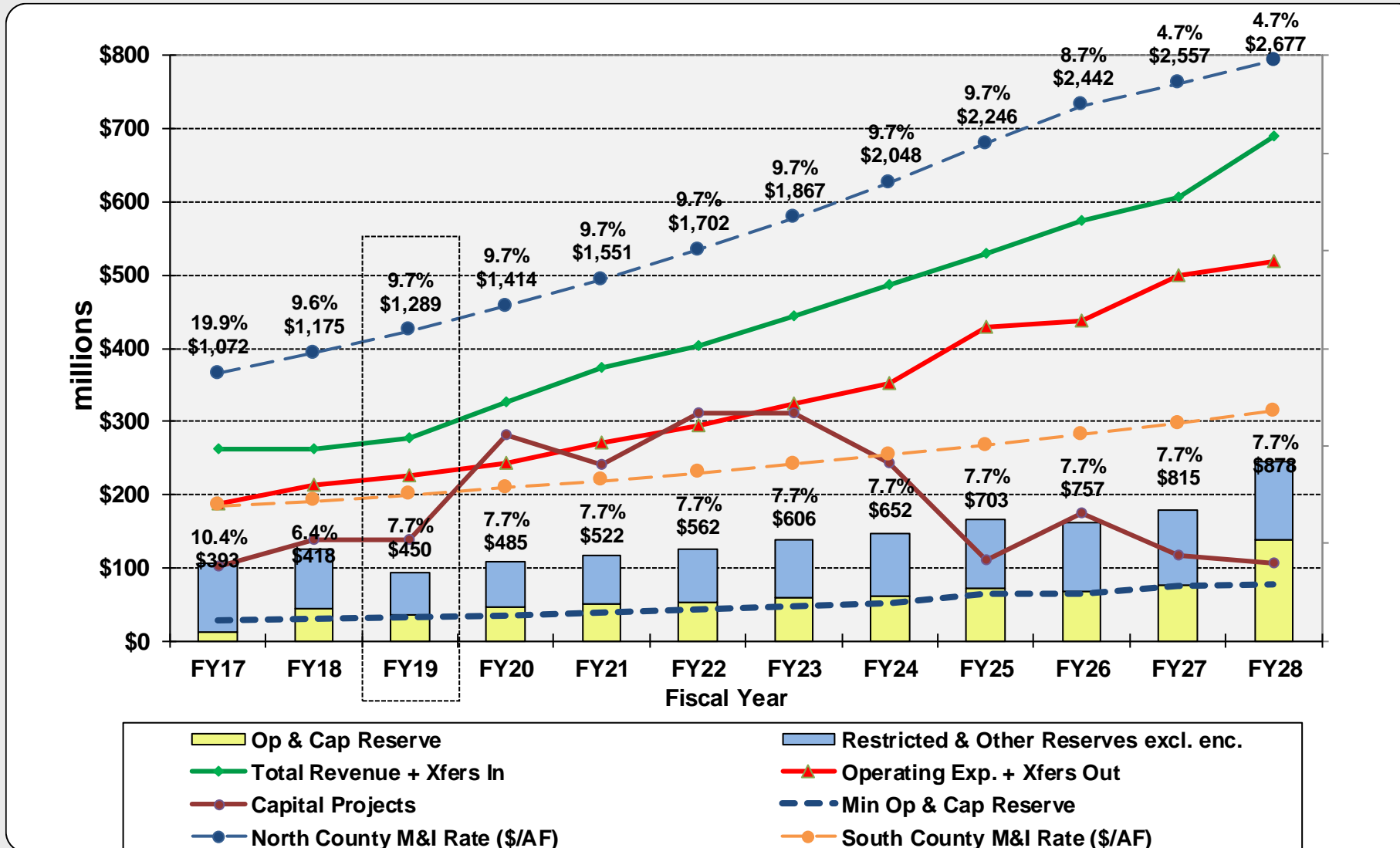
Drought Reserve:

- ▶ Increased from \$5 million to \$7 million for FY 19

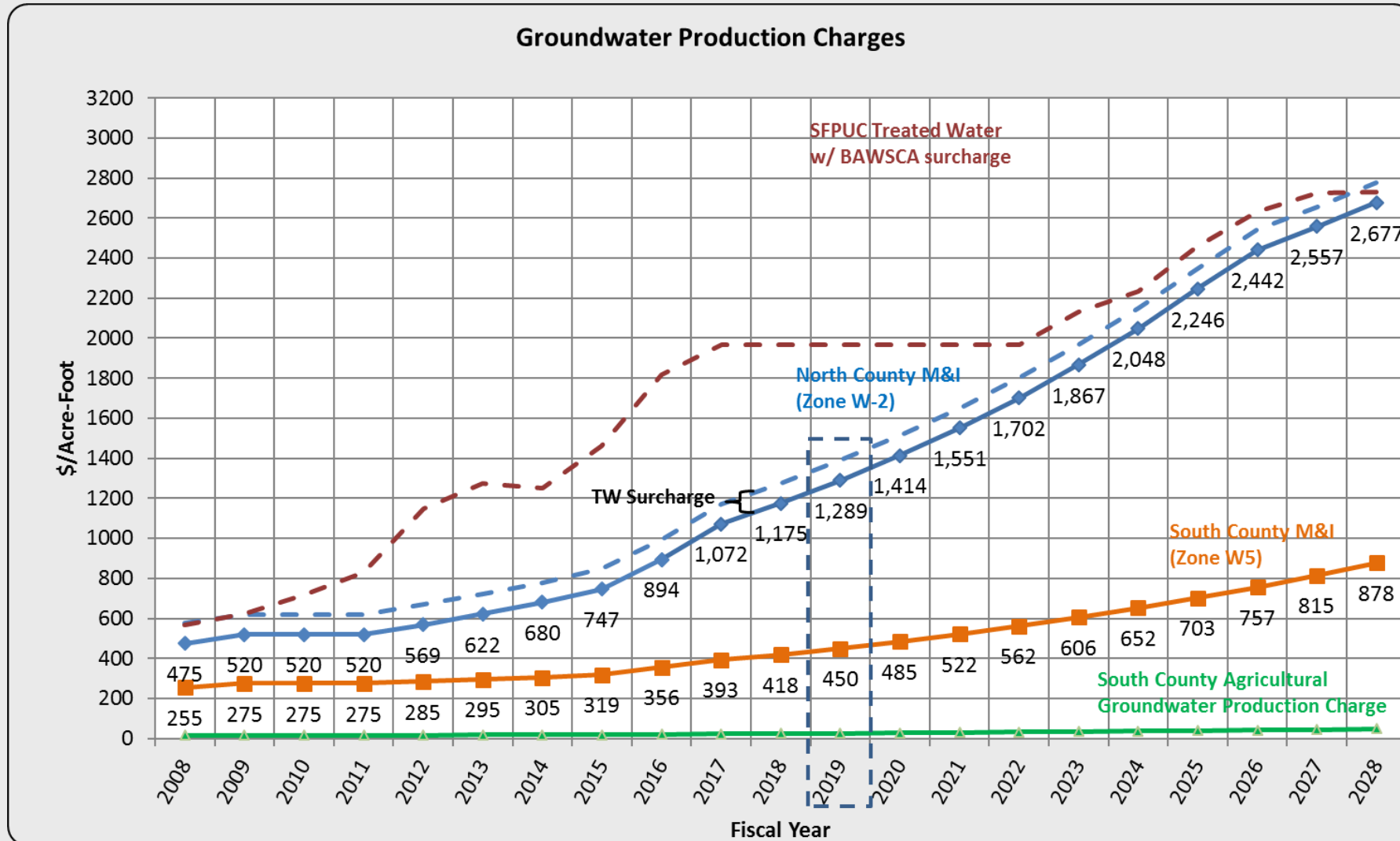
Cost Projection



Groundwater Production Charge Projection



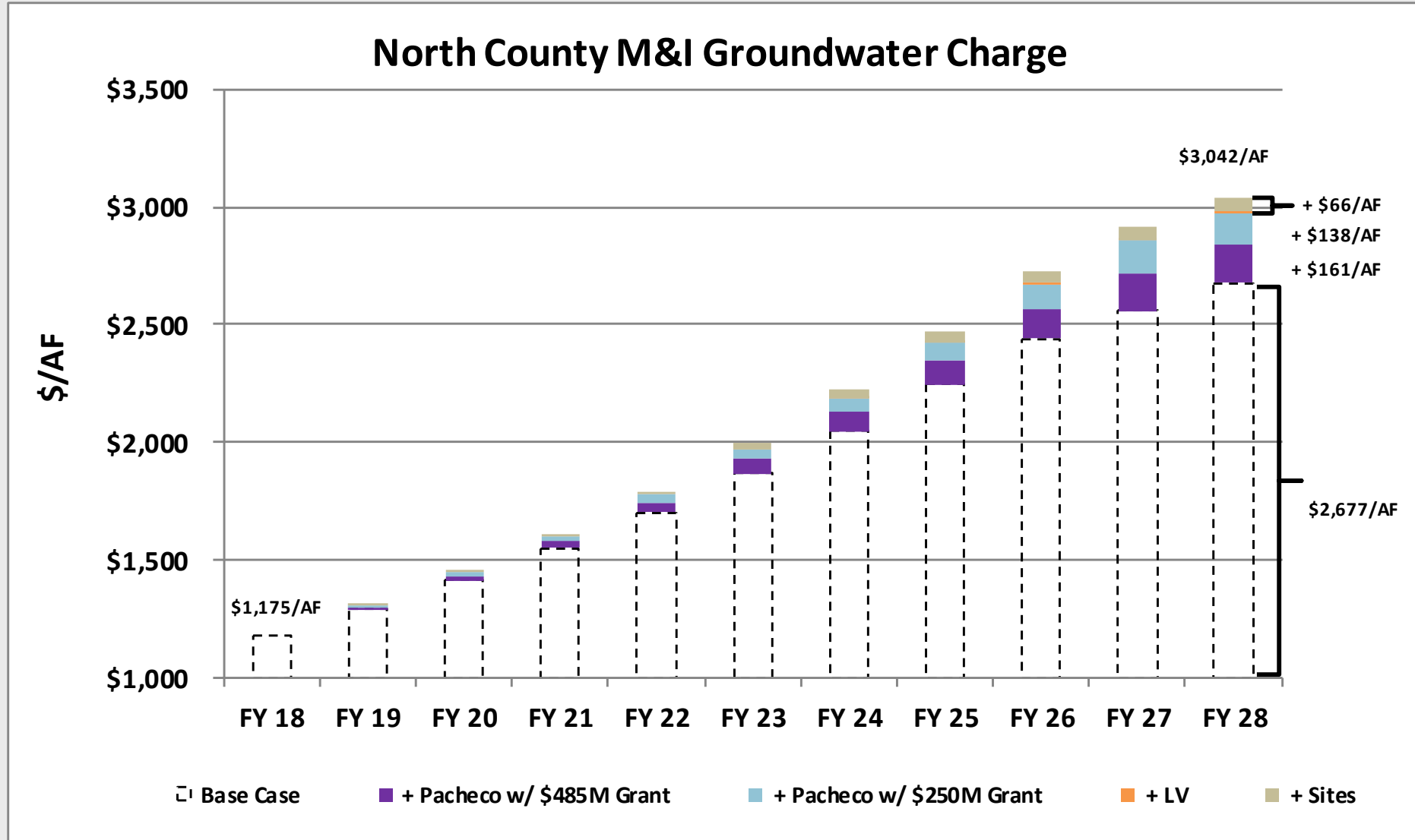
Groundwater Production Charge Projection



Some projects cannot be funded without higher future charges

- Pacheco Reservoir Expansion (\$1.2B)
- Dam Seismic Stability at 2 Dams – Unfunded portion (\$89.5M)
- SCADA Small Capital Improvements (\$19.6M)
- South County Recycled Water Reservoir Expansion (\$7.0M)
- Land Rights – South County Recycled Water Pipeline (\$5.8M)
- Alamitos Diversion Dam Improvements (\$3.2M)
- Coyote Diversion Dam Improvements (\$2.5M)

Water Supply Investment Scenarios



Notes:

- Stacked bar reflects incremental rate impact associated with adding each alternative
- Base Case includes CWF @ 7.5%

State Water Project Tax Recommendation

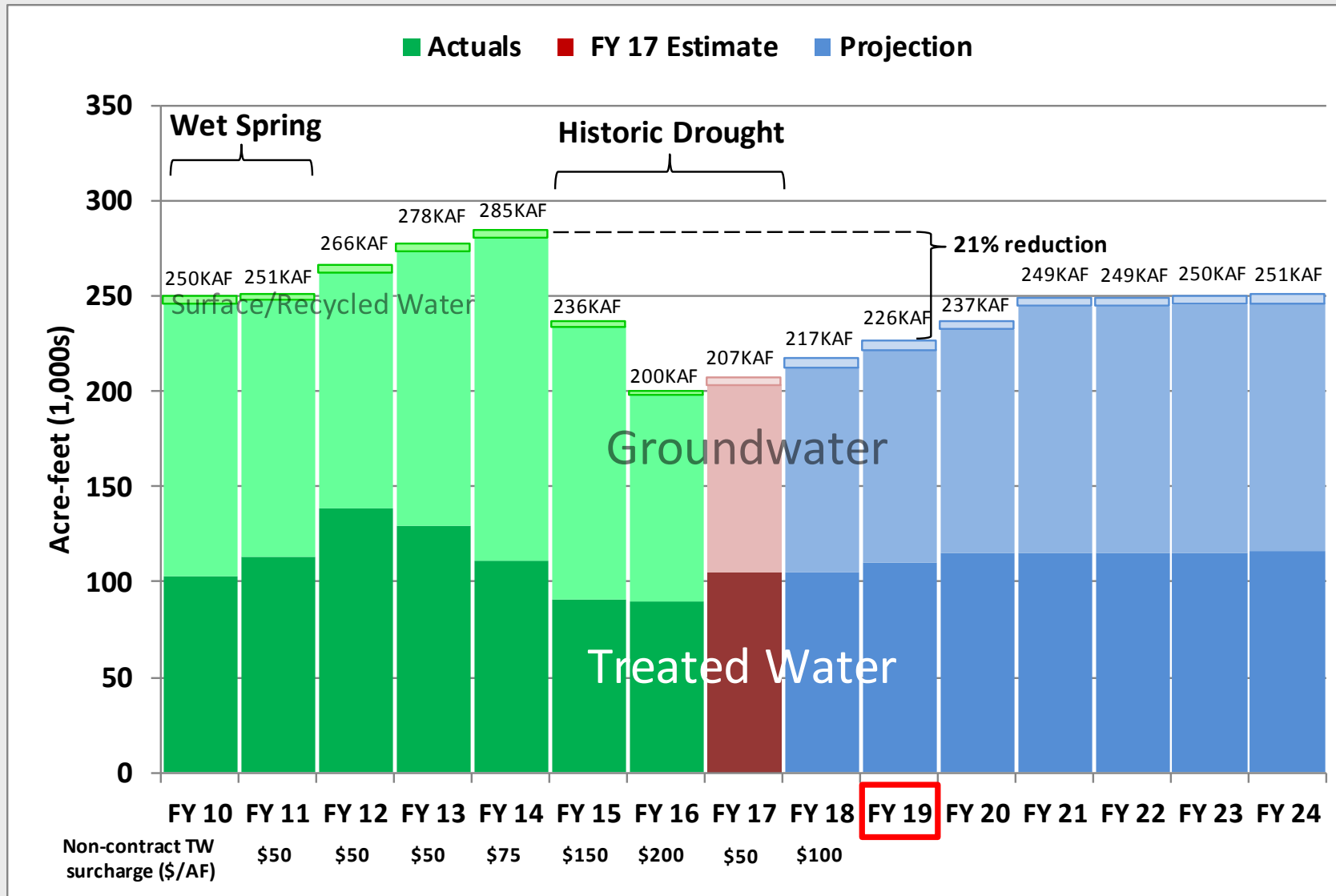
- ▶ Staff recommends decreasing the SWP tax from \$26M to \$18M
- ▶ The SWP tax bill for the average single family residence would decrease from \$39.00 to \$27.00/year.

Impact if SWP tax not approved:

- \$98/AF in terms of North County M&I groundwater production charge
- \$21/AF in terms of South County M&I groundwater production charge
- \$525,000 in terms of Open space credit

LIMITED (PRIMARY) VALUES				PRIMARY		COMPARATIVE 2003 AMT		2004 DISTRIBUTION		OFFICE USE ONLY	
TYPE	LIMITED	%	ASSESSED			2003	2004	RATE / 100	2004 AMT DUE		
LAND-BLDG PERSONAL EXEMPTION	76000	10.0	7600	COUNTY EDUC-EDUAL	86.57	12108	92.02		34.86		
				CITY SCHOOL	33.73	04560	339.70				
				CO. EDUC COMM-COL	339.44	44896	70.00				
				STATE AID	67.28	9211	-117.14				
PRIM TOT.	76000		7600		-117.58		70575		419.24		
FULL CASH (SECONDARY) VALUES				SECONDARY							
TYPE	FULL CASH	%	ASSESSED								
LAND-BLDG PERSONAL EXEMPTION	76000	10.0	7600	FLOOD CONTROL	18.10	2118	16.10		9.12		
				OVERRIDES	8.12	1200	72.74		3.96		
				FIRE DIST-ASST	78.16	9511	8.82		8.82		
				LIBRARY	.84	6088	8.82		206.08		
				BONDS	3.96	521	7.84		7.84		
				-COUNTY	5.32	12477	8.82		8.82		
				-CITY	104.59	1181	7.84		7.84		
				-SCHOOLS	10.45	27118					
				-COMM COL	228.24						
SEC TOT.	76000		7600		7.42	1032					
SPECIAL DISTRICT (VALUE/ACRES/SQ FT) = ASSESSED				DIST#							
HOSPITAL DISTRICT NO 1 EAST VALLEY INSTITUTE TECH				7600 7600		10848 30001					
TOTALS						845.10			633.16		

District Managed Water Usage drives revenue projection



2018 schedule for hearings and meetings

- ✓ Jan 9 Board Meeting on Preliminary Groundwater Prod. Charge Analysis
- ✓ Feb 24 Mail notice of public hearing and file PAWS report
- ✓ March 21 Water Retailers Meeting
- ✓ April 2 Ag Water Advisory Committee
- ✓ April 3 Landscape Committee Meeting
- ✓ April 10 Open Public Hearing
- April 11 Water Commission Meeting
- April 12 Continue Public Hearing in Morgan Hill (Informational Open House)
- April 16 Environmental & Water Resources Committee
- April 24 Conclude Public Hearing
- May 8 Adopt budget & groundwater production and other water charges

Note: Protests may be submitted between the date the notice was mailed (February 23) and the conclusion of the hearing (April 24)

Summary

- **Groundwater Production Charge projection driven by infrastructure repair & replacement, and water supply reliability investments**
- **Proposed FY 19 Groundwater Production Charge increase equates to an increase of \$3.92 per month in North County and \$1.10 per month in South County to average household**

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Committee:	Water Commission
Meeting Date:	04/11/18
Agenda Item No.:	4.2
Unclassified Manager:	Kurt Arends
Email:	karends@valleywater.org
Est. Staff Time:	10 minutes

COMMITTEE AGENDA MEMO

SUBJECT: Climate Change Mitigation – Carbon Neutrality by 2020 Program Update

RECOMMENDED ACTION:

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

SUMMARY:

This is the update of District efforts to achieve carbon neutrality by 2020. Using the methodology adopted by the Board in 2013, staff estimates that the District can offset 22,360 of its 23,000 metric tons (MT) of carbon dioxide equivalent (CO₂e) emissions in 2020. Staff will continue to refine this estimate on an annual basis, and will also continue to explore opportunities to reduce its carbon footprint over the next five years to meet this goal.

BACKGROUND:

As the primary water resources agency for Santa Clara County, the District manages an integrated water resources system that includes the supply of clean, safe water, natural flood protection, and stewardship of streams on behalf of Santa Clara County's 1.9 million residents.

The District's ability to provide those services is challenged by the potential of warmer temperatures, changing precipitation and runoff patterns, reduced snow pack, and rising sea levels. Managing climate change related uncertainties, vulnerabilities, and risks to local water resource management is critical to fulfill the District's mission.

Greenhouse Gas (GHG) emission mitigation or reduction refers to District activities that reduce greenhouse gas emissions generated by District activities towards achieving carbon neutrality. District's strategies towards carbon neutrality include:

1. Establishing a District-wide internal carbon offset methodology to facilitate emission reduction
2. including properly crediting emission reductions from water conservation programs, habitat restoration or enhancements or renewable energy production and contributions to countywide emission reduction efforts;
3. Increasing fleet fuel use efficiency;
4. Maintaining a portfolio of alternative renewable energy supplies;
5. Increasing energy use efficiency;
6. Identifying and developing opportunities to employ sources of alternative energy that reduce greenhouse gas emissions;
7. Conducting periodic greenhouse gas emission inventories;
8. Reviewing energy usage and options for reducing greenhouse gas emissions for District facilities; and
9. Funding management of the County Green Business Program.

This agenda item describes GHG reduction efforts, and progress towards achieving carbon neutrality. It is divided into 4 sections: 1) Methodology for Calculating GHG Emissions and Reduction; 2) Updated Carbon Emission and Reduction Calculations; 3) Energy Optimization Plan; 4) Continuing Efforts towards Carbon Neutrality by 2020.

1. Methodology for Calculating GHG Emissions and Reduction

While District operations generate GHG emissions, it also provides opportunities to avoid, reduce and sequester GHG. Therefore, the Board established Policy No. E- 4.3.1: "Reduce greenhouse gas emissions to achieve carbon neutrality by 2020", which directs the District's efforts in reducing GHG emissions.

On March 26, 2013, the Board adopted a methodology for calculating the District's GHG emission or carbon footprint and offsets. Attachment 2 provides details on this methodology. The District's carbon footprint includes emissions from fleet, from onsite energy uses, and from emission related to imported water. District's carbon offsets come from conservation and green practices or activities, such as its water conservation, water recycling, green business programs, and carbon sequestration from wetland and riparian restoration.

2. Updated Carbon Emission and Reduction Calculations

Table 1 provides estimates of projected carbon footprint and offsets for the years 2010 thru 2015 and an estimate for Year 2020. The Year 2020 estimated emissions are 23,000 metric tons (MT) and the total offsets are 22,360 MT.

Table 1. Summary of Estimated and Projected Carbon Footprint and Offset in MT Co2e/Year

Calendar Year	2010	2011	2012	2013	2014	2015	2020
Emissions	22,100	21,800	29,800	29,700	18,500	22,200	23,000
1. Direct Emissions from District Operations	2,200 ¹	2,300 ¹	2,500	2,800	3,000	2,100	2,200
2. Emissions from Purchased Electricity	2,200 ¹	500 ¹	3,400	4,000	6,000	6,300	4,400
3. Other Emissions	17,700	19,000	23,900	22,900	9,500	13,800	16,400
a. State Water Project	14,800	16,100	21,000	20,000	6,600 ²	10,900 ²	13,500 ³
b. Central Valley Project	0	0	0	0	0	0	0
c. Import from SFPUC	0	0	0	0	0	0	0
d. Employee Commute	1,500	1,500	1,500	1,500	1,500	1,500	1,500
e. Business Travel	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Reduction/Sequestration	22,370	23,060	24,400	23,110	24,080	24,235	22,480
1. Water Conservation Program (WCP)	17,100	17,800	18,400 ⁴	16,700 ⁴	17,600 ⁴	17,800 ⁴	14,800 ⁵
2. Recycled water	2,500	2,500	3,000	3,500	3,700	3,400	3,900
3. Carbon sequestration	500	500	500	500	500	500	500
4. Green Business Program	2,200	2,200	2,200	2,200	2,200	2,200	2,200
5. Energy Optimization Measures (EOMs)	70 ⁶	60 ⁶	300 ⁶	210 ⁶	80 ⁶	335 ⁷	1,080 ⁸
C. Difference	270	1,260	-5,400	-6,590	5,580	2035	-520

¹ Verification completed;

² District specific emission factor (EF) based on reported EF for CY 2014 and 2015 for the State Water Project;

³ Projection based on DWR's projected emission reduction of 33% by CY 2020 and updated water supply projection for 2020;

⁴ Adjusted based on decreases in Pacific Gas and Electric's (PG&E) emission factors as compared to the 3-year averages of CY 2005 to 2007;

⁵ Projection based on a 45% reduction in PG&E's CY 2020 EF compared to the 3-year average of CY 2005 to 2007.

⁶ This has been updated using reported energy productions and emission factors for each corresponding year.

⁷ The update includes energy conservation measure completed in FY 2015 in addition to zero-emission energy production through on campus solar and Anderson Hydro.

⁸ The update used an estimated emission factor for CY 2020 provided by the Power and Water Resources Pooling Authority (PWRPA). This offset assumes that all measures are fully operational in CY 2020

In February 2017, staff completed a Green Business Recertification. The process involved staff from fleet, energy, facilities management, procurement, office supply management, and watershed stewardship programs. Since 2000, the District has contributed between \$67k to \$100K annually or between 30% to 50% annual administration cost to the countywide green business program, and developed for the associated GHG reduction benefits in the methodology.

3. Emission Reduction through Energy Management

This section outlines the status of the energy optimization effort, which includes the development of renewable energy projects, Power and Water Resources Pooling Authority (PWRPA) renewable energy projects, and energy efficiency and conservation efforts.

Overview of Renewable Energy Projects

The District is a member of PWRPA, a joint powers authority (JPA) to collectively manage electrical loads and generation assets. PWRPA is subject to the State of California "Renewable Portfolio Standard" (RPS) mandate, whereby electric utilities must serve a RPS percentage of retail sales with renewable resources

within a given Compliance Period. In addition to supporting the board governance policy to achieve carbon neutrality, the local renewable energy projects being pursued by the District will also contribute to PWRPA's requirement to meet the RPS mandate. The status of these efforts is described below.

A. Local Renewable Projects - Water Treatment Plant Solar Projects

The solar developer, GL Renewables, LLC (Green Light), completed construction of the 260 kilowatt (KW) and 248 KW PV solar installations at Santa Teresa and Penitencia water treatment plants, respectively, in October 2016. The projects will combine to generate approximately 850 megawatt-hours (MWh) of energy annually over the 20-year duration of the project.

The energy generated from the systems is intended for direct use at the water treatment plants and will offset utility power and contribute to the district goal to achieve carbon neutrality

B. Utility-Scale Renewable Projects through PWRPA

In 2014, PWRPA procured for the District a 400 KW share of the 75 megawatt (MW) utility-scale Astoria 2 Solar project located in Kern County, California. This project became commercially operational in December 2016.

Through PWRPA, the District also secured a 750 KW allocation in the Whitney Point Solar Project (Whitney Point), which is a 20 MW utility-scale solar project in Fresno County. The project commercial operation date (COD) was May 1, 2017.

Participation in utility-scale solar projects through PWRPA increases the renewable energy in the District's electricity portfolio and provides renewable energy to the District with the same environmental benefits as the solar projects located at the District's water treatment plants, and at a lower cost.

Staff continues to evaluate upcoming utility-scale renewable projects through PWRPA to reduce the carbon intensity of the energy the District purchases from PWRPA.

Staff will continue to evaluate energy recovery and other emerging energy-efficient technologies that may be compatible with District conditions.

C. Silicon Valley Clean Energy

The District has approximately 140 minor facilities and remote turnouts that have PG&E electric services. PG&E recently partnered with Silicon Valley Clean Energy (SVCE), which is a new public, locally controlled electric generation service provider that offers high-percentage carbon-free electricity at a competitive price. SVCE is a local community choice aggregation program that provides residents and businesses with a choice of electric providers and sources of electricity. SVCE offers two options for carbon-free power: a 100% carbon-free (50% renewable) energy option for approximately 1% less than average PG&E costs; and a 100% renewable energy option for approximately 3% more than average PG&E costs.

The initial enrollment started in April 2017 and is available in twelve Silicon Valley communities, including Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Monte Sereno, Morgan Hill, Mountain View, Saratoga, Sunnyvale, and unincorporated County of Santa Clara. Starting in April 2017, 76 of the District's 140 minor PG&E electric services enrolled in SVCE to increase the percentage of carbon-free electricity in the District's portfolio.

D. Energy Optimization Plan

Staff continues to implement the energy optimization measures (EOMs) recommended by the Energy Optimization Plan, a comprehensive energy audit conducted by Black & Veatch in 2013. Of the original 49 EOMs recommended by the Energy Optimization Plan, staff has completed 35 EOMs as shown in Attachment 3. In FY16, staff completed 15 EOMs, including investigation of the following measures: treatment plant ozone generator maintenance and efficiency testing, treatment plant backwash efficiency settings, lighting upgrades and HVAC settings at various facilities. There are currently eight (8) EOMs in progress and six (6) EOMs were deferred until after the Rinconada Water Treatment Plant (RWTP) seismic retrofit and Reliability Improvement Project (RIP). Implementation of the Energy Optimization Plan continues to depend on competing priorities in other District projects and programs, and project validation and prioritization.

4. Continuing Efforts towards Carbon Neutrality by 2020

District's GHG emission reduction framework provides an effective mechanism towards achieving carbon neutrality. District's GHG reduction strategies support key drivers for achieving carbon neutrality as outlined below:

1. Diversified water supply portfolio: About two thirds of imported water comes from zero-emission sources; the federal Central Valley Project and the gravity-fed Hetch Hetchy system. In 2010, about three-fifths of the energy for the State Water Project was zero-emission hydroelectricity.
2. Continue to support statewide GHG emission reduction initiatives: The District continues to support DWR's target for emission reduction. Staff also initiated discussion on the feasibility of DWR purchasing renewable energy on the District's behalf for imported water the District receives from the State Water Project. According to DWR, as of 2015, energy sources used by the State Water Project is 65% carbon free, a 5% rise in carbon free energy compared to CY 2010. DWR is accelerating its path towards achieving a 33% total GHG emission reduction in 2020, by participating in an 85-MW and other utility-scale solar energy project in 2016. Staff anticipates further reduction in GHG emission related to Importing water from DWR's State Water Project.
3. Cost effective and renewable energy sources: With the addition of the newly completed 400 kW utility-scale Astoria II solar project in Kern County reaching its Commercial Operation Date on December 9, 2016 and the 750 kW solar allocation from the utility-scale Whitney Point solar project in Fresno County which became operational in April 2017, the District energy portfolio includes 2,263 kW of solar generation. Staff continues to evaluate additional utility-scale renewable projects through PWRPA to increase the District's renewable energy portfolio.
4. Conservation/Efficiency Program: Over two thirds of the carbon offsets come from the District's water conservation program. Energy efficiency and conservation continues to be the most cost effective way of achieving emission reduction. The water conservation program, along with the energy optimization plan, will continue to play an important role in future GHG emission reduction.
5. Water Recycling: Increasing production of purified water will increase energy consumption at the Silicon Valley Advanced Water Purification Center, potentially increasing the energy related emissions. However, accelerated purified water production also provides carbon offsets. Any changes to the projections of purified water production will need to be incorporated in future updates.
6. Other efforts: Staff continues to implement energy conservation measures identified in the Energy Optimization Plan and green business practices throughout District facilities. Staff supports the District's Green Team Employee Resources Group to promote green practices through the way we work and live.

ATTACHMENT(S):

Attachment 1: PowerPoint

Attachment 2: Methodology

Attachment 3: Status of Energy Optimization Plan



Climate Change Mitigation - Progress towards carbon neutrality

Santa Clara Valley Water Commission

April 11, 2018

Santa Clara Valley
Water District

Attachment 1
Page 1 of 13



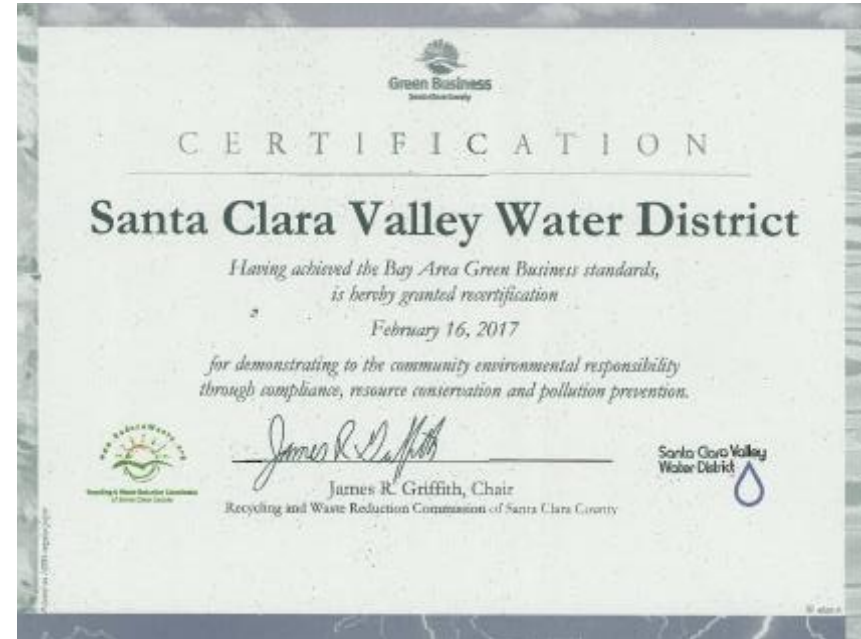
- ▶ Board Policy, Outcome Measures & Strategies
- ▶ Progress on emission reduction (Energy Management)
- ▶ Progress towards Carbon Neutrality
- ▶ Next Steps

Board Ends Policy

- 4.3 Strive for zero Net Greenhouse Gas Emission or Carbon Neutrality
 - 4.3.1 Reduce Greenhouse Gas Emissions to achieve Carbon Neutrality by 2020.

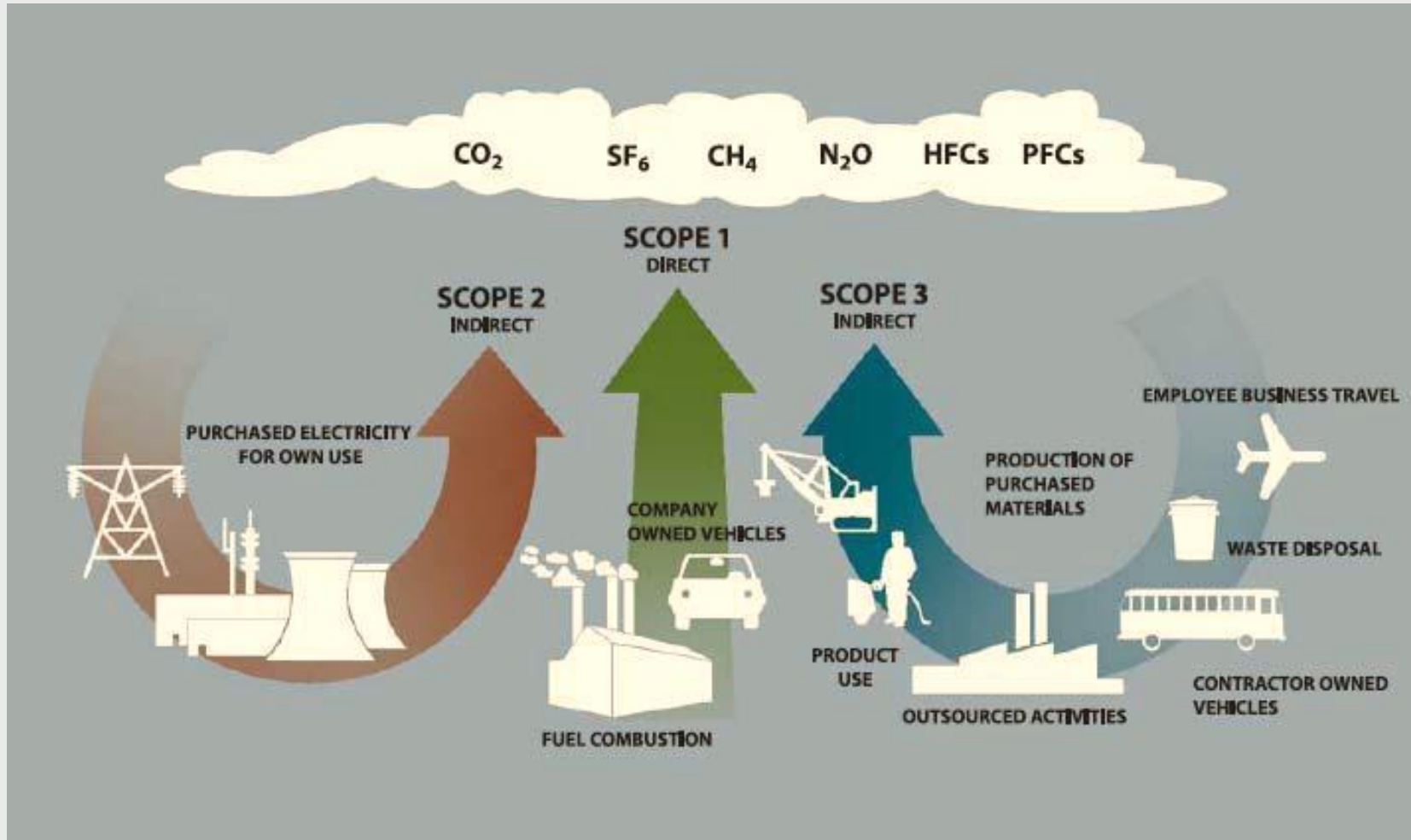
Outcome Measures

- Maintain California Green Business Certification.
- By 2020, the amount of District greenhouse gas emissions is equal to or less than carbon offsets as calculated by the District carbon offset methodology.



GHG Emissions Overview

The Methodology



PWRPA and PG&E
Electricity

Fleet, Heating

Imported Water, Employee
Commute & Business Travel

Emission Reduction through Energy Management

- ▶ Renewable Energy Projects
 - Local Renewable Projects
 - Utility-Scale Renewable Projects
- ▶ Silicon Valley Clean Power
- ▶ Energy Optimization Plan

Photovoltaic Solar Project – Penitencia Completed 2016

Local Renewable Energy Projects



PWTP System Details:

- ❑ 248 KW ground-mount PV solar
- ❑ Offset approximately 21% of WTP annual energy usage
- ❑ 409 MWh / year and reduction of 112 metric ton of CO₂e / year

Photovoltaic Solar Project – Santa Teresa Completed 2016

Local Renewable Energy Projects



STWTP System Details:

- ❑ 260 KW ground-mount PV solar
- ❑ Offset approximately 22% of WTP annual energy usage
- ❑ 441 MWh / year and reduction of 122 metric ton CO₂e / year

PWRPA Utility-Scale Solar Projects

Utility-Scale Renewable Projects

- 75 MW Astoria II Solar Project – Kern County
 - Completed in December 2016
 - District allocation: 400 kW (1,247 MWh / year, 344 metric ton CO₂e / year)



© Recurrent Energy

PWRPA Utility-Scale Solar Projects

Utility-Scale Renewable Projects

- 20 MW Whitney Point Solar Project – Fresno County
 - Completed in April 2017
 - District allocation: 750 kW (2,199 MWh / year, 607 metric ton CO₂e / year)



- ▶ 76 of District's remote facilities in Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Monte Sereno, Morgan Hill, Mountain View, Saratoga, Sunnyvale and Unincorporated Santa Clara County
- ▶ Switched to 100% carbon free energy in April 2017
- ▶ Costs 1% less than PG&E rate



Energy Optimization Measures

Progress on Energy Optimization Plan Implementation

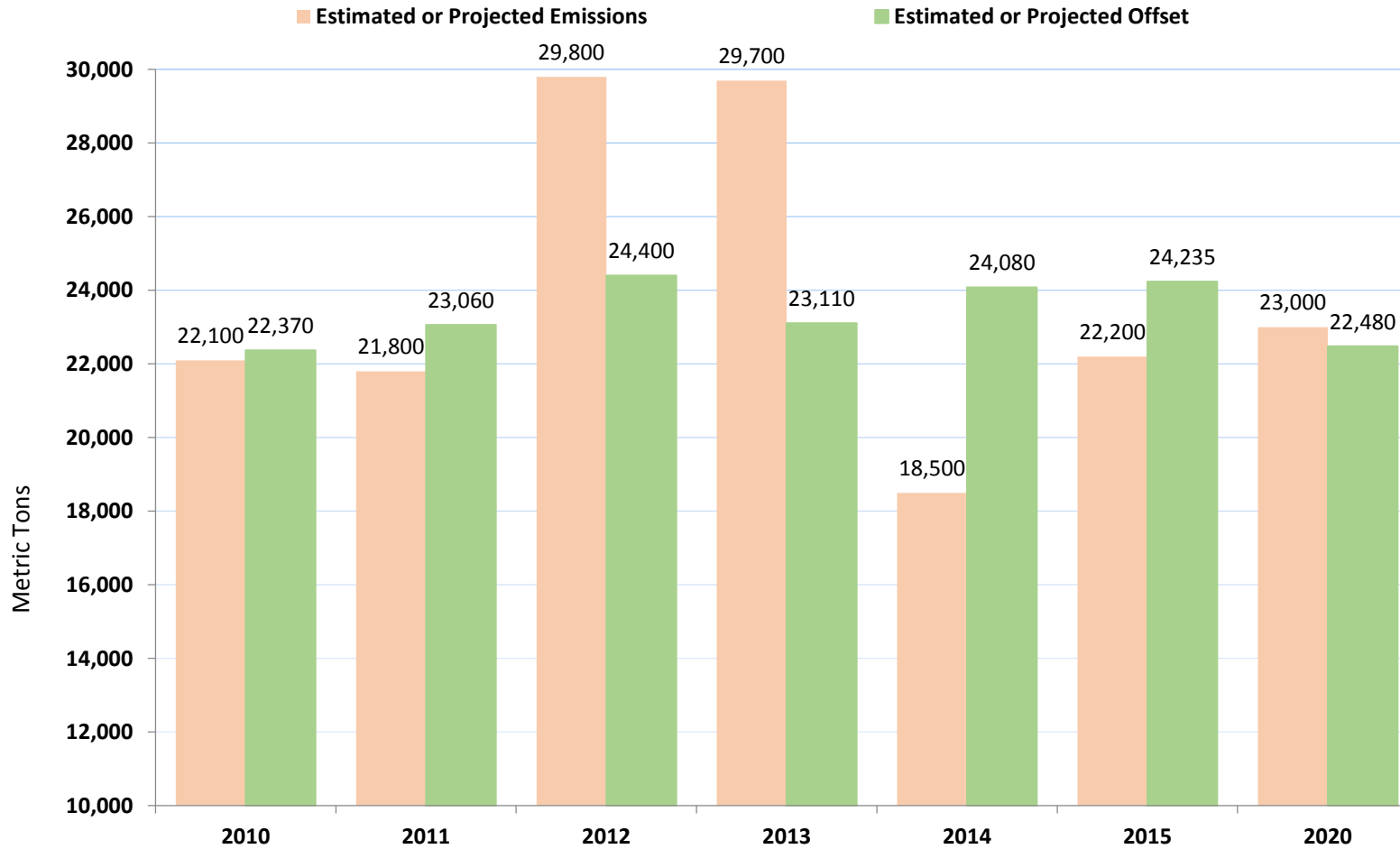
55 Total Recommended Measures (2013 Energy Optimization Plan)

Completed in FY2013 - FY2016	35
On-Going in FY2017	8
Scheduled for FY2018 - FY2020	6
Not Recommended	6

- **Impact of fully implemented projects and measures**
 - Save about 3,220 MWh of energy annually
 - Offset about 590 Metric Ton of CO₂e per year

Progress Towards Carbon Neutrality

Progress towards Carbon Neutrality



- ▶ Continue to Implement Strategies Towards Carbon Neutrality
 - Support federal and state water supply GHG emission reduction initiatives
 - Evaluate cost effective and renewable resources
 - Continue water conservation and energy efficiency programs
 - Increase recycled water production
 - Maintain Green Business Practices
- ▶ On track to achieve Carbon Neutrality by 2020

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Attachment 1. Methodology and Calculation of Carbon Emission and Offset

Brief Overview

The District's carbon footprint includes emissions from the Scope 1 (Fleet), 2 (Electricity Purchase) and 3 (Imported Water, Employee Commute and Employee Travel) activities. Carbon offsets account for carbon emissions avoided from water conservation, water recycling, hydroelectricity or solar production, carbon sequestered from habitat restoration, enhancement or preservation and the green business program.

The methodology was applied to District operations using actual data for calendar year 2010 and projected data for 2020. The emissions and offset are calculated in metric tons of CO₂e emission per year (MT/Year). For Calendar Year (CY) 2010 data, actual data from best available sources were obtained. For CY 2020, the projection is based on the percent change in the water supply portfolio compared with CY 2010, applying the same assumptions.

Table 1. Water Use and Projected Use (Acre Feet) for CY 2010 and 2020

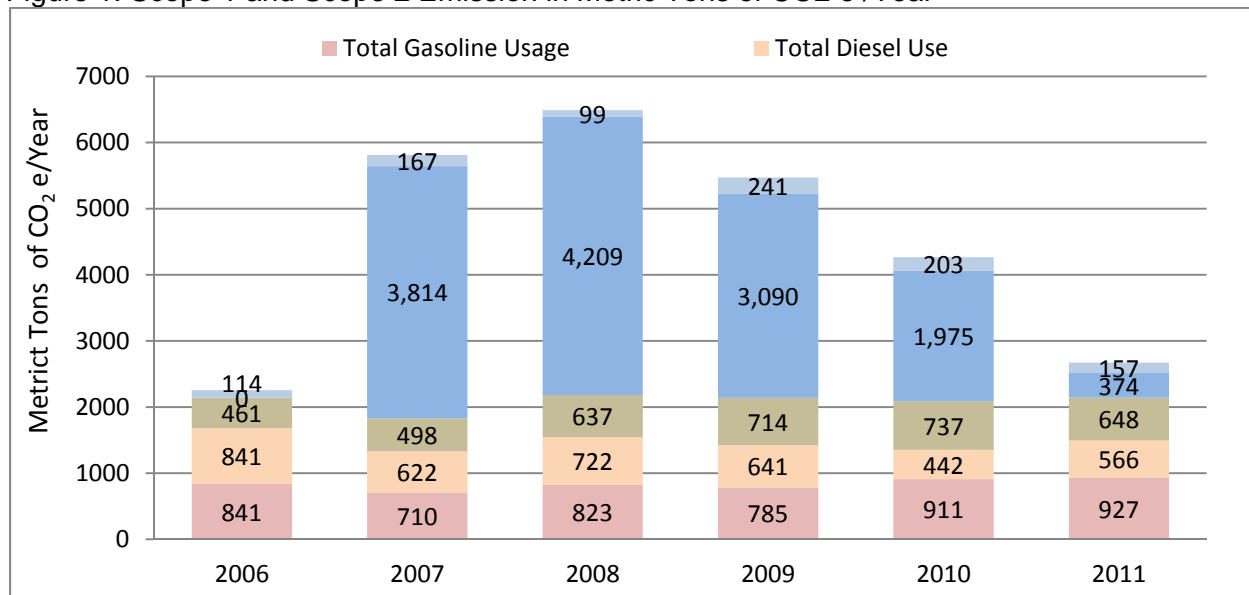
Water Supply Sources	2010	2020	% Change
A. Local Surface Water	111,000	90,900	-6%
B. Natural Groundwater Recharge	50,000	61,200	
C. Import from State Water Project	45,900	60,200	31%
D. Import from Central Valley Project	83,600	109,700	31%
E. Import from San Francisco Public Utilities Commission	49,700	60,600	22%
F. Water Conservation	51,000	76,100	49%
G. Recycled Water	14,700	22,100	50%

Carbon Footprint

Scope 1 and Scope 2 Emissions

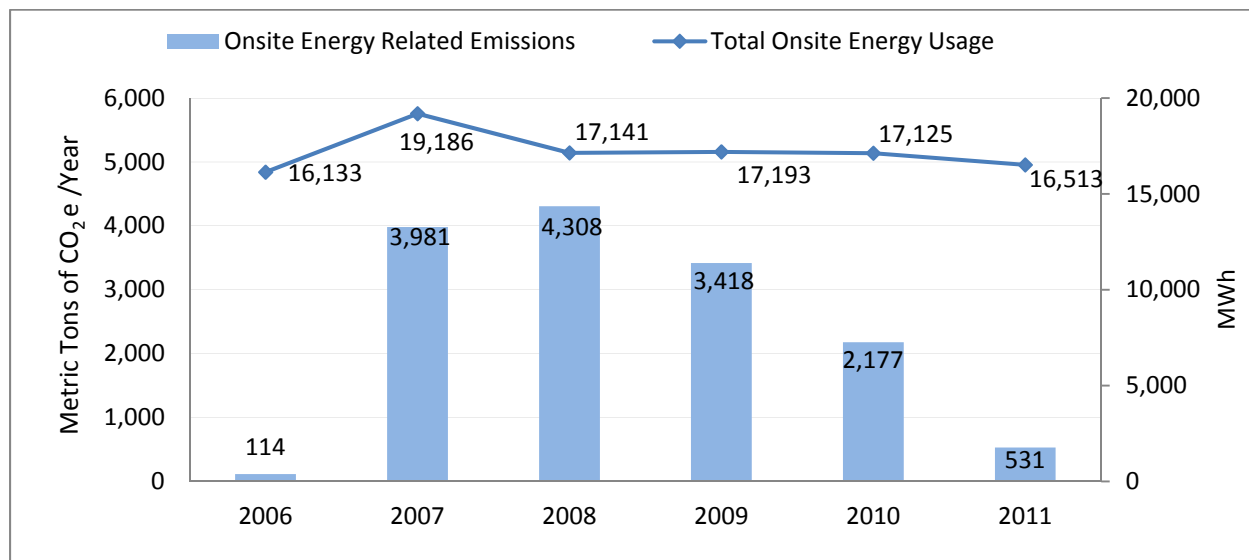
Scope 1 and 2 emissions are based on the Climate Registry's General Reporting Protocol. Figure 1 illustrates six years of Scope 1 and 2 GHG emission inventories via the California Climate Action Registry or the Climate Registry. It depicts relative stable amount of emissions from fleet or natural gas uses, while great fluctuations in emissions from the Power and Water Resources Pooling Authority (PWRPA) and PG&E energy sources.

Figure 1. Scope 1 and Scope 2 Emission in Metric Tons of CO₂ e /Year



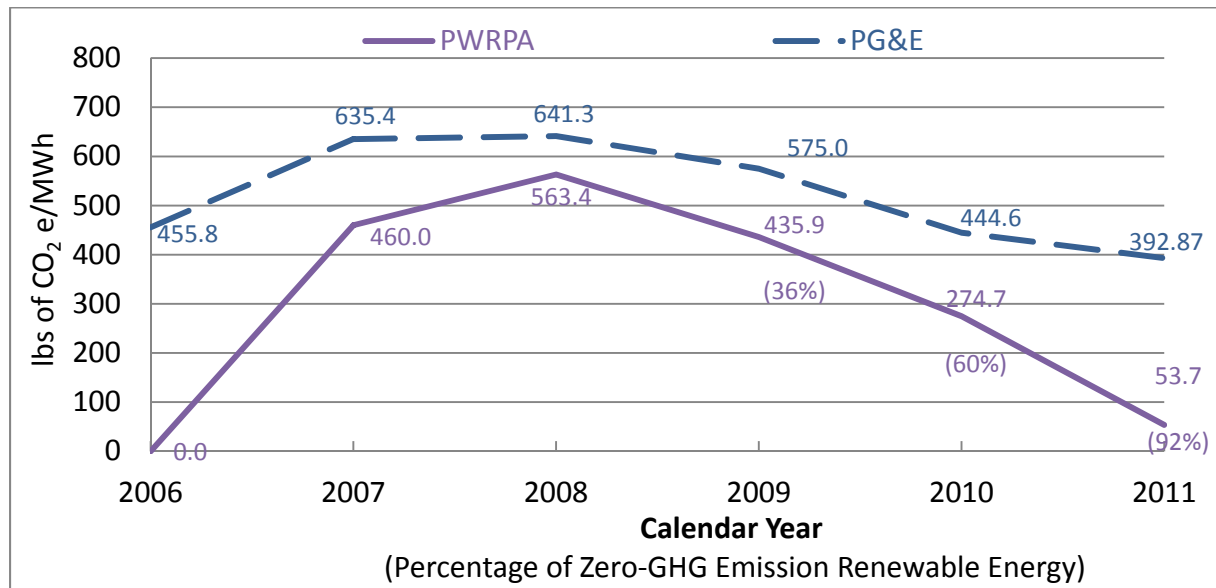
As shown in Figure 2, total onsite energy use averages about 17,000 MWh Per Year, with the exception of CY 2007, while onsite energy related emissions fluctuated from 114 to 4,308 MT/Year.

Figure 2. Onsite Energy Use and Related Emissions



Much of fluctuation comes from changes in PWRPA's emission factors (see Figure 3), as PWRPA energy accounts for about 95% of the total energy directly purchased by the District.

Figure 3. Changes in PG&E and PWRPA's Emission Factors



Specifically, for CY 2010, 94% of the District's directly purchased energy came from PWRPA and onsite solar production. In addition to zero-emission solar power, the District works with two energy suppliers with significant share of renewables in their respective portfolio. The emission factor for PWRPA is about 25% lower than PG&E. PG&E's emission factor is about half of the national average. Both are well below the California average. For CY 2006, a very wet year, PWRPA achieved carbon free energy, resulted in the lowest emission reported by the District. For CY 2011, PWRPA's emission factor reflects a 92% zero-emission energy in its portfolio, resulting in an emission at one seventh of PG&E's.

For CY 2020, PG&E anticipates the emission factor to reduce to 290 lbs of CO₂ e /MWh. As PWRPA continues to increase qualified renewables into its portfolio, staff anticipates the emission factors to remain lower than PG&E's emission factor.

Scope 3 Emissions

Because over 55% of the District's water supply is imported, staff also included emissions related to importing water to the county as Scope 3 emissions. Emission factors for imported water are provided by the Department of Water Resources, Bureau of Reclamation and assumptions for San Francisco Public Utilities Commission's gravity feed system.

Scope 3 also includes emissions from employee commute and business travel , and are calculated based on accounting data and online tools developed by rideshare.511.org and enviro.berkeley.edu/aircalculator.

Total Carbon Footprint

Table 2 below summarizes the District's Scope 1, 2 and 3 carbon footprint. Emissions from energy uses for three treatment plants, local pumping and office/lab buildings is 2,177 MT of CO₂ e/Year, 8% of the total.

About two thirds of imported water is conveyed to the County using zero emission hydropower from the federal Central Valley Project, and gravity feed from San Francisco Public Utility Commission's Hetchy Hetchy system. A large portion of energy for the State Water Project is

also from zero emission hydropower. For CY 2010, the State Water Project's emission factor is 0.46 Metric Tons/Acre Feet (AF). Table 2 estimates the District's carbon footprint to be 28,400 MT for CY 2010 and 37,200 MT for CY 2020, respectively.

Table 2. Summary of Carbon Footprint (in Metric Tons of CO₂ e (MT)/Year)

Sources	2010	2020
Scope 1 (Fleet)	2,200	
Scope 2 (Purchased Electricity)	2,200	
Scope 3 (District Defined)		
a. Import from State Water Project	21,100	
b. Import from Central Valley Water Project	0	
c. Import from SFPUC	0	
d. Employee Commute	1,500	
e. Business Travel	1,400	
Total Emissions	28,400	37,200

Carbon offsets

District's operations include activities that avoid or reduce carbon emissions, including water conservation, water recycling, renewable energy production, and the green business program. The District also invests in carbon sequestration through preserving, maintaining, restoring or enhancing wetlands/riparian habitats.

Though uncertainties exist when quantifying carbon offsets, staff anticipates that the list of sources for carbon offsets continues to expand. For example, as a part of Safe, Clean Water and Natural Flood Protection Program, the District is committing millions to reduce toxins, hazards and contaminants, and restore wildlife habitat and open space. These efforts could provide additional environmental carbon offsets.

Other District's activities can also be added to this list, as quantification methods become available. For example, City of San Jose developed a methodology for quantifying carbon offsets related to interconnected trails, and District's investments in trails could further expand carbon offsets.

Staff continues to monitor latest developments in accounting environmental carbon offset, and advocate for funding efforts to provide environmental carbon offsets to leverage investments in water conservation, recycling, stormwater retention, and other climate smart practices.

Description of Methods Used for Accounting Offset

Though there are uncertainties related to accounting these environmental carbon offsets, to further S4.3.1.1, staff quantified these offset based on the following:

1. For water conservation and water recycling related avoidance or reductions, staff used estimates from the 2011 "[From Watts to Water](http://www.valleywater.org/WorkArea/DownloadAsset.aspx?id=8418)" Report. This report can be downloaded at <http://www.valleywater.org/WorkArea/DownloadAsset.aspx?id=8418>.
2. For Anderson Hydroelectricity and On-campus Solar production, staff used energy production data and PG&E's emission factor data to estimate carbon emissions avoided.
3. For wetlands and habitat related sequestration, staff used a sequestration rate of 0.7 Metric Tons/Acre Per Year. This is based on a 2007 Environmental Protection Agency Study providing a sequestration rate of 0.4 to 1.0 Metric Tons/Acre Per Year for riparian buffer. With this rate, staff collected acreage from the 2010 Stewardship Report; and applied a 25% efficiency rate for preservation or mitigation wetlands or riparian buffer sites based on the 3:1 ratio for mitigation;

4. For Green Business related avoidance or reductions, staff obtained data from 2012 recertification process and imposed a 25% multiplier to avoid double counting the benefits of water and energy conservation related offset estimated by the web-based tool developed by California Green Business Program.

Three Options For Accounting Water Conservation Related Carbon Offsets

Recognizing the uncertainties related to accounting for water conservation related carbon offsets, staff considered three options from this source:

Table 3. Options for accounting carbon offsets from water conservation programs

Options	Description
1. Carbon offsets from all water conservation savings	Carbon offsets from water savings that is directly attributable to District programs as well as savings from codes and/or new standards. The District's water conservation program is a key driving force for achieving all types of water conservation. Incentives motivate people to make changes. They also assist in market transformation and code/standard development.
*2. Carbon offsets from the District's water conservation program	Carbon offsets from water savings that is directly attributable to District programs. It does not include savings from codes and/or new standards. Staff calculated this to be about 25% of the Option 1 carbon offsets based on the District's conservation model that tracks active and passive water savings over time.
3. Carbon offsets from a portion of the District's water conservation program	Carbon offsets from a portion of the water savings that is directly attributable to District programs. The split is proportionally estimated based on the amount of the incentive versus the total cost of the device being rebated. Staff provided a rough estimate of a 50% split based on a weighted average of actual rebate amounts in 2010 versus the total cost of the individual devices.

Three Options for Accounting Carbon Offsets

Table 4 illustrates the estimated carbon offsets from all sources including the water conservation program. The water conservation program provides the greatest carbon offsets for the District.

Table 4. Preliminary List of Sources for Carbon offsets

Sources of Carbon offsets	2010	2020
A. Water Conservation Related Carbon offsets		
Option 1. All Water Conserved	68,300	102,000
Option 2. Programmatic Contribution	17,000	25,500
Option 3. Direct Investment	8,500	12,700
B. Other Non-Water Conservation Related Carbon offsets	5,200	6,400
1. Recycled Water	2,500	3,700
2. Hydroelectricity/Solar Production	100	100
3. Habitat/Wetlands	500	500
4. Green Business Program	2,100	2,100
C. Total Carbon offsets		
Option 1. All Water Conserved + Other	73,500	108,400
Option 2. Programmatic Contribution + Other	22,200	31,900
Option 3. Direct Investment + Other	13,700	19,100

*Board Chair requested that staff utilize Option 2 for all future water conservation.

ATTACHMENT 3 – STATUS OF ENERGY OPTIMIZATION MEASURES (EOMs)

Energy Efficiency - Anderson Hydro Facility						
No.	Project / Measure	Recommendation	Energy (MWh/Yr)	Estimated Cost	Completion Date (* projected)	Status (January 2017)
1	Continue to perform preventive maintenance and update operational procedures to optimize generation and improve reliability	Implement	N/A	As part of existing O&M tasks	On-Going	On-going (preventative maintenance and testing performed regularly)

Energy Efficiency – Pumping Plants						
No.	Project / Measure	Recommendation	Energy (MWh/Yr)	Estimated Cost	Completion Date (* projected)	Status (January 2017)
2	Pacheco Investigate optimizing air cooling flow in the Electrical Room	Perform investigation	TBD	\$4,000	FY16	Complete
3	Pacheco Operate more efficient pumps at PPP and manage pump operations closer to full speed	Implement	3,196	\$17,500	FY15	Complete
4	Pacheco Provide Operators via SCADA a display of wire to water efficiency for the pumping plant. This will allow for feedback on strategies that have an impact on energy use.	Implement	N/A	\$3,000	FY15	Complete

¹ The Energy Optimization Measures (EOMs) were recommended by the Energy Optimization Plan, a comprehensive energy audit conducted by Black & Veatch consultant in 2013.

ATTACHMENT 3 – STATUS OF ENERGY OPTIMIZATION MEASURES (EOMs)

Energy Efficiency – Pumping Plants						
No.	Project / Measure	Recommendation	Energy (MWh/Yr)	Estimated Cost	Completion Date (* projected)	Status (January 2017)
5	Pacheco Replace lights with energy efficient types.	Implement	3.12	\$23,000	FY15	Complete
6	Coyote Investigate HVAC Control setting	Perform investigation	TBD	\$3,000	FY16	Complete
7	Coyote Investigate optimizing air cooling flow in the Electrical Room	Perform investigation	TBD	\$3,000	FY16	Complete
8	Coyote Investigate pump curves and system operation to optimize pumping efficiency.	Perform investigation	TBD	\$6,000	FY17*	In progress
9	Coyote Provide Operators via SCADA a display of wire to water efficiency for the pumping plant. This will allow for feedback on strategies that have an impact on energy use.	Perform investigation	TBD	\$3,000	FY14	Investigation Complete (implementation dependent on completion of ASD upgrade project)
10	Coyote Install occupancy sensors on lighting systems to turn off fluorescent lights when building is unoccupied.	Implement	0.5	\$6,000	FY16	Complete

ATTACHMENT 3 – STATUS OF ENERGY OPTIMIZATION MEASURES (EOMs)

Energy Efficiency – Pumping Plants						
No.	Project / Measure	Recommendation	Energy (MWh/Yr)	Estimated Cost	Completion Date (* projected)	Status (January 2017)
11	Coyote Investigate replacing existing lights with high energy efficient ones.	Perform investigation	TBD	\$6,000	FY15	Complete
12	Coyote Evaluate installation of higher efficiency variable speed drives	Completed evaluation.	TBD	\$6,000	FY13	Investigation Complete (CPP ASD upgrade project has been validated – awaiting funds)
13	Coyote Investigate HVAC system replacements.	See Item No. 12	TBD	See Item No. 12	FY13	Investigation Complete (HVAC to be replaced during CPP ASD upgrade project)

Energy Efficiency – Treatment Plants						
No.	Project / Measure	Recommendation	Energy (MWh/Yr)	Estimated Cost	Completion Date (* projected)	Status (January 2017)
14	Rinconada Investigate filter media backwashing operations to enhance filter runs.	Perform investigation	TBD	\$6,000	TBD	Deferred (until during/after RWTP RIP design and commissioning)

ATTACHMENT 3 – STATUS OF ENERGY OPTIMIZATION MEASURES (EOMs)

Energy Efficiency – Treatment Plants						
No.	Project / Measure	Recommendation	Energy (MWh/Yr)	Estimated Cost	Completion Date (* projected)	Status (January 2017)
15	Rinconada Review flow requirements for the plant water system to see if pressure settings or number of pumps running can be reduced during the day or during periods of low demand.	Needs further analysis	TBD	\$4,000	TBD	Deferred (until during/after RWTP RIP design and commissioning)
16	Rinconada Investigate Operations Building HVAC control settings and temperature adjustment during the day.	Perform investigation	TBD	\$6,000	TBD	Deferred (until during/after RWTP Seismic design and commissioning)
17	Rinconada Modify operation of the Rinconada Finished Water Booster System to keep the VFD driven pump above 80 percent speed which is a more efficient operating point	Needs further analysis	TBD	\$500	TBD	Deferred (until during/after RWTP RIP design and commissioning)
18	Rinconada Investigate replace older motors on equipment with new motors with higher efficiency where applicable.	Perform investigation	TBD	\$4,000	TBD	Deferred (until during/after RWTP RIP design and commissioning)
19	Rinconada Investigate Operations Building HVAC system replacements.	Perform investigation	TBD	\$8,000	FY18*	Deferred (postponed until after completion of RWTP seismic upgrade project)
20	Santa Teresa Investigate Operations Building HVAC control settings.	Perform investigation	TBD	\$4,000	FY16	Complete

ATTACHMENT 3 – STATUS OF ENERGY OPTIMIZATION MEASURES (EOMs)

Energy Efficiency – Treatment Plants						
No.	Project / Measure	Recommendation	Energy (MWh/Yr)	Estimated Cost	Completion Date (* projected)	Status (January 2017)
21	Santa Teresa Prevent plant water pumping system from cycling on and off so often (e.g. hydro pneumatic system tune-up).	Implement	2.0	\$8,000	FY13	Complete
22	Santa Teresa Perform maintenance on all ozone generators and replace dielectrics, operate the ozone systems at the highest ozone concentration possible while maintaining the minimum gas flows requirements	Needs further study	TBD	\$4,000	FY16	Complete
23	Santa Teresa Investigate optimization of backwash set points to reduce energy usage (reduce backwash duration, flow rate and filter to waste volume)	Perform investigation	TBD	\$4,000	FY17*	In progress
24	Santa Teresa De-energize equipment not needed	Implement	0.5	\$2,500	FY14	Complete
25	Santa Teresa Evaluate the frequency and duration of backwash operations for filter cleaning to see if this can be optimized.	Perform investigation	TBD	\$4,000	FY16	Complete

ATTACHMENT 3 – STATUS OF ENERGY OPTIMIZATION MEASURES (EOMs)

Energy Efficiency – Treatment Plants						
No.	Project / Measure	Recommendation	Energy (MWh/Yr)	Estimated Cost	Completion Date (* projected)	Status (January 2017)
26	Santa Teresa Investigate ways to optimize backwashing pumping operations including operation at BEP.	Perform investigation	TBD	\$3,000	FY16	Complete
27	Santa Teresa Replace lights with energy efficient types in Operations Building and around the site.	Implement	0.6	\$50,000	FY16	Complete
28	Santa Teresa Investigate replacement of older motors with new higher efficiency motors (Example, flocculation mixer motors)	Perform investigation	TBD	\$4,000	FY16	Investigation Complete (upgrades to premium efficiency motors to occur through on-going maintenance and capital projects)
29	Santa Teresa Investigate Operations Building HVAC system replacements.	Perform investigation	TBD	\$8,000	FY16	Complete
30	Penitencia Investigate Ozone Generation Building HVAC control settings.	Perform investigation	TBD	\$4,000	FY16	Complete
31	Penitencia Investigate Ozone Generation Building air flow.	Perform investigation	TBD	\$3,000	FY16	Complete

ATTACHMENT 3 – STATUS OF ENERGY OPTIMIZATION MEASURES (EOMs)

Energy Efficiency – Treatment Plants						
No.	Project / Measure	Recommendation	Energy (MWh/Yr)	Estimated Cost	Completion Date (* projected)	Status (January 2017)
32	Penitencia De-energize equipment not needed	Implement	1.0	\$1,500	FY14	Complete
33	Penitencia Investigate plant water pumping system to utilize newer pumps.	Completed investigation.	N/A	\$6,000	FY13	Investigation Complete
34	Penitencia Perform maintenance on all ozone generators and replace dielectrics, operate the ozone systems at the highest ozone concentration possible while maintaining the minimum gas flows requirements	Needs further study	TBD	\$4,000	FY16	Complete
35	Penitencia Investigate optimization of backwash set points to reduce energy usage (reduce backwash duration, flow rate and filter to waste volume, increase the target filter head pressure that triggers the backwash process, consider influent characteristics and number of optimal duty filters)	Perform investigation	TBD	\$3,000	FY16	Complete
36	Penitencia Investigate replacement of older motors with new higher efficiency motors (Example, rapid and flocculation mixer motors)	Perform investigation	TBD	\$3,000	FY15	Investigation Complete (upgrades to premium efficiency motors to occur through on-going maintenance and capital projects)

ATTACHMENT 3 – STATUS OF ENERGY OPTIMIZATION MEASURES (EOMs)

Energy Efficiency – Treatment Plants						
No.	Project / Measure	Recommendation	Energy (MWh/Yr)	Estimated Cost	Completion Date (* projected)	Status (January 2017)
37	Penitencia Investigate using VFD on reclaim pump instead of throttling valve to control flow.	Perform investigation	TBD	\$4,000	FY17*	In progress

Energy Efficiency – Buildings						
No.	Project / Measure	Recommendation	Energy (MWh/Yr)	Estimated Cost	Completion Date (* projected)	Status (January 2017)
38	HQ Add hot water reset to boiler	Completed	0	\$3,000	FY13	Complete
39	HQ Replace outdoor lighting with energy efficient technologies	Implement	3.0	\$35,000	FY17*	In progress
40	HQ Replace existing HVAC control system with same as used throughout the rest of the campus	Implement	5.0	\$150,000	FY15	Complete
	HQ Add CO2 sensors to control intake air					

ATTACHMENT 3 – STATUS OF ENERGY OPTIMIZATION MEASURES (EOMs)

Energy Efficiency – Buildings						
No.	Project / Measure	Recommendation	Energy (MWh/Yr)	Estimated Cost	Completion Date (* projected)	Status (January 2017)
41	HQ Cooling Tower Replacement with new CVHS chiller	Perform investigation	TBD	\$4,000	FY17*	In progress
42	HQ Replace chiller	Perform investigation	TBD	\$4,000	FY17*	In progress
43	HQ Add VFDs on chilled and heating water pumping systems	Needs further analysis	TBD	\$5,000	FY17*	In progress
44	HQ Replace lighting controls system	Implement	5.0	\$15,000	FY14	Complete
45	HQ Install sub-metering for the individual buildings fed by the Headquarters Bldg service to support detailed evaluation of building energy use	Completed	0	\$50,000	FY13	Complete
46	HQ Replace Boiler	Implement	0	\$250,000	FY16	Complete
47	Admin Add hot water reset to boiler	Completed	0	\$2,500	FY13	Complete
48	Admin Replace outdoor lighting with equivalent higher efficiency technologies	Implement	2	\$20,000	FY17*	In progress

ATTACHMENT 3 – STATUS OF ENERGY OPTIMIZATION MEASURES (EOMs)

Energy Efficiency – Buildings						
No.	Project / Measure	Recommendation	Energy (MWh/Yr)	Estimated Cost	Completion Date (* projected)	Status (January 2017)
49	Admin Install sub-metering for the individual buildings to support detailed evaluation of building energy use	Completed	0	\$50,000	FY13	Complete
ESTIMATED TOTAL			3,219	\$817,500		



Committee:	Water Commission
Meeting Date:	04/11/18
Agenda Item No.:	4.3
Unclassified Manager:	Garth Hall
Email:	ghall@valleywater.org
Est. Staff Time:	10 minutes

COMMITTEE AGENDA MEMO

SUBJECT: Study of the District's Groundwater Services Areas ("Zones of Benefit")

RECOMMENDED ACTION:

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

SUMMARY:

The County's groundwater subbasins are managed by the Santa Clara Valley Water District (District) and constitute a critical element of the County's water supply. District activities to ensure reliable groundwater supplies are funded mostly by groundwater charges. Well owners who pump groundwater pay a charge to the District if they are located in areas benefitting from District activities, such as groundwater recharge. These groundwater services areas, previously referred to as zones of benefit, were created more than forty years ago. The District is reviewing the extent of these areas to reflect changes in District activities and an updated understanding of areas that benefit. This will ensure that well owners are charged according to benefits received. Some wells may be removed, while others may be added to a groundwater services area. The District's overall revenue will not change.

The preliminary technical study is complete, and the District is seeking input from interested stakeholders and the community. Based on the technical analysis described in the preliminary study report, six groundwater services areas are proposed as compared to the existing two. The proposed changes would not result in major changes to the physical extent of the two existing areas. Rather, the proposed changes are primarily focused along the margins of the valley floor.

The District will continue to engage interested stakeholders and solicit their feedback on the preliminary study, which is posted on the District website at www.valleywater.org/zone-of-benefit-study. Opportunities for input from interested stakeholders and the community prior to Board action include various meetings to discuss the findings, and direct input to staff. Based on input, the District's technical consultant will consider any revisions needed to the study report.

Staff expects to present the preliminary study report to the Board in May 2018 with recommendations for changes to the groundwater services areas. If the Board approves changes, a legal survey description of the new areas will be developed for Board consideration in accordance with District Act requirements. It is expected that the legal survey description would be brought to the Board in November 2018, if needed. If new or modified groundwater services areas are established, the rate to be applied within each modified area would then need to be evaluated in accordance with the District Act.

ATTACHMENT(S):

Attachment 1: PowerPoint

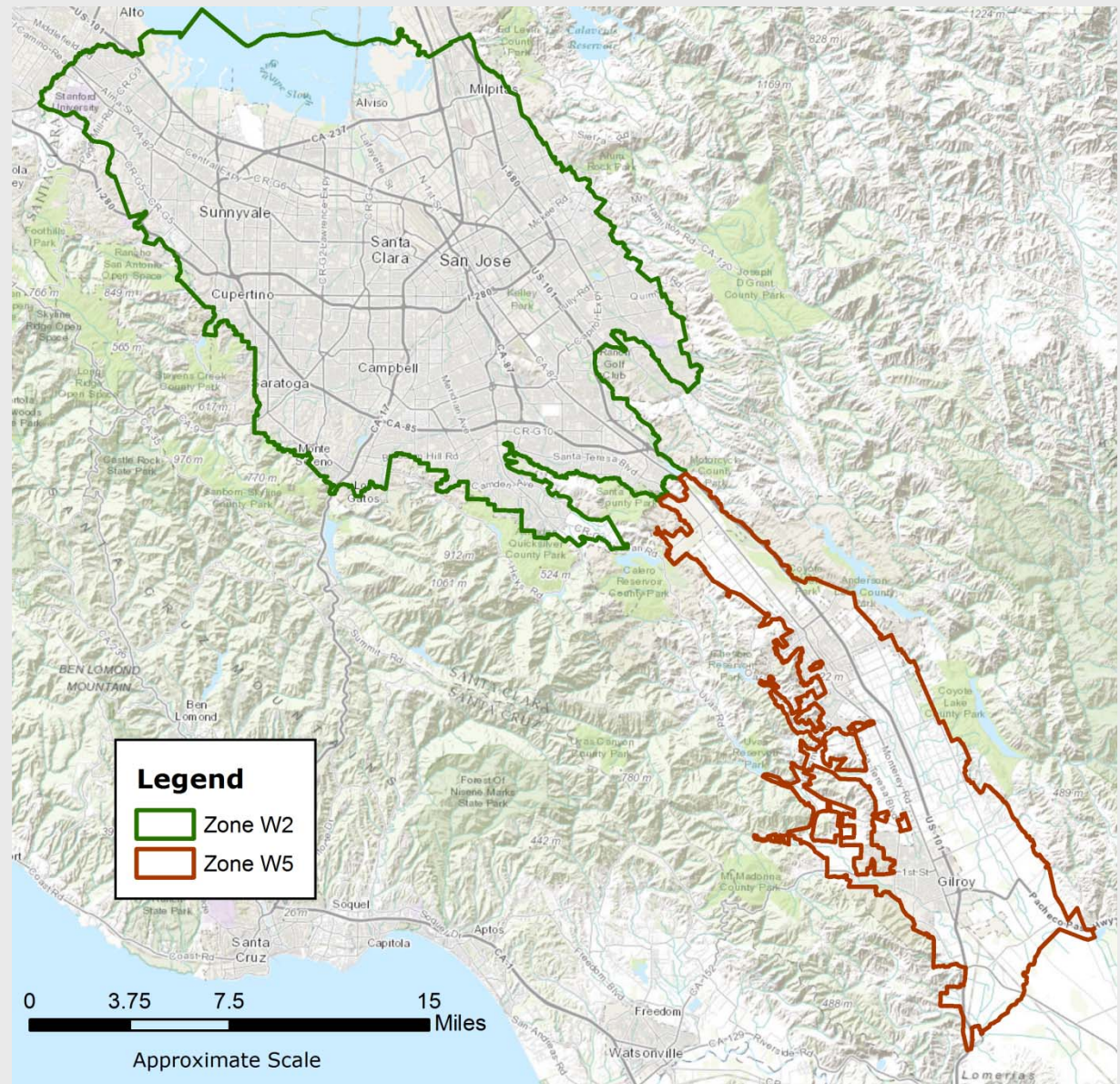
Update of Groundwater Services Areas

Water Commission Meeting
April 11, 2018



Support continued groundwater sustainability

- ▶ District funds activities to replenish and protect groundwater
- ▶ **Zone W2** established 1963
- ▶ **Zone W5** established 1977



Groundwater Services Areas Update

▶ Goals

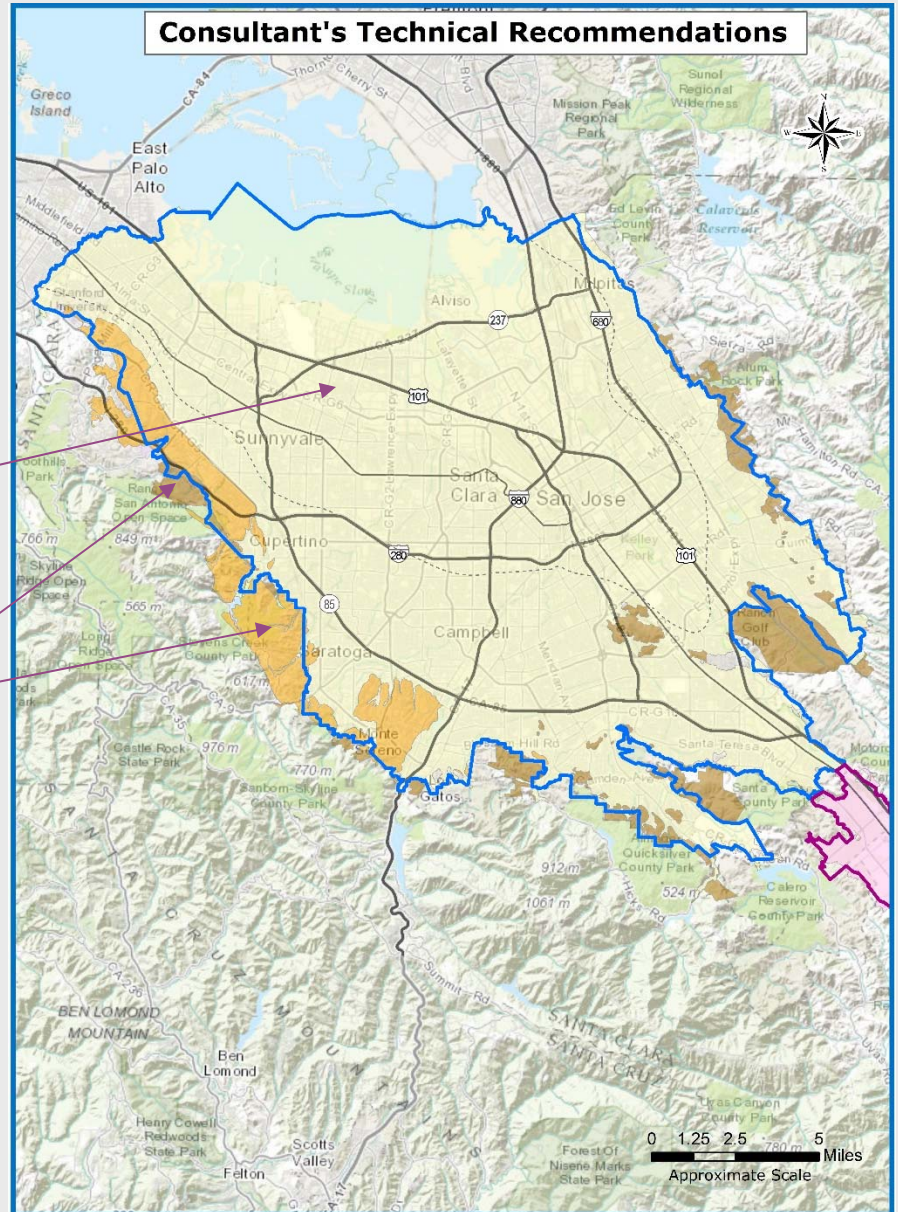
- ▶ Conduct science-based, transparent study with stakeholder input
- ▶ Ensure each area properly reflects benefits received from District activities
- ▶ Recommend updates to the service areas as appropriate



North County technical recommendations

Defined three areas that could replace W-2:

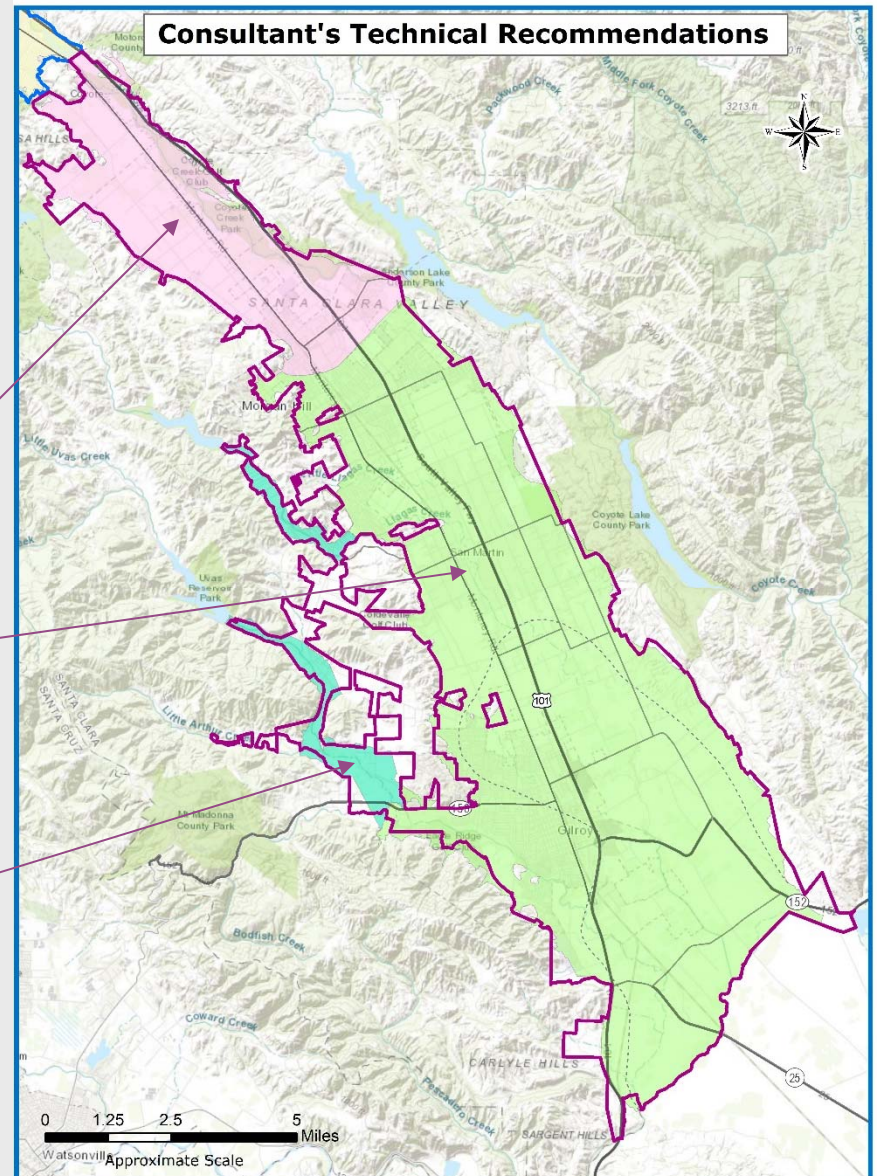
- ▶ Valley Floor - benefits from same programs as W-2
- ▶ Valley Margins - benefits from fewer programs



South County technical recommendations

Defined three areas that could replace W-5:

- ▶ Coyote Valley - benefits from fewer programs than W-5
- ▶ Valley Floor - benefits from same programs as W-5
- ▶ Uvas and Llagas Creeks - benefits from fewer programs than W-5



Next steps

Conduct stakeholder outreach
(March - April 2018)

Further evaluate administrative costs and requirements for candidate new areas

Present recommendations to Board
(May 2018)

Present legal description of new area(s)
for Board consideration (November 2018)*

Conduct study to determine rate in any
new or modified area*

* If necessary based on Board direction in previous steps.



Committee:	Water Commission
Meeting Date:	04/11/18
Agenda Item No.:	4.4
Unclassified Manager:	Michele King
Email:	mking@valleywater.org
Est. Staff Time:	5 minutes

COMMITTEE AGENDA MEMO

SUBJECT: Review Santa Clara Valley Water Commission Work Plan, the Outcomes of Board Action of Commission Requests; and the Commission's Next Meeting Agenda

RECOMMENDED ACTION:

Review the Commission 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.

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.

ATTACHMENT(S):

Attachment 1: Santa Clara Valley Water Commission 2018 Work Plan

Attachment 2: Santa Clara Valley Water Commission July 25, 2018 Draft Agenda

GP8. 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.

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 2018	January 24	<ul style="list-style-type: none"> Commission Elects Chair and Vice Chair for 2018. (Action) 	<p>Accomplished January 24, 2018: The Commission elected Hon. Yoriko Kishimoto as 2018 Water Commission Chair and Hon. Debi Davis as 2018 Water Commission Vice Chair.</p>
2	Annual Accomplishments Report	January 24	<ul style="list-style-type: none"> Review and approve 2017 Accomplishments Report for presentation to the Board. (Action) Submit requests to the Board, as appropriate. 	<p>Accomplished January 24, 2018: The Commission reviewed and approved the 2017 Accomplishments Report for presentation to the Board.</p>
3	Civic Engagement	January 24	<ul style="list-style-type: none"> Receive feedback from Commission per Transparency Audit. (Action) Provide comments to the Board, as necessary. 	<p>Accomplished January 24, 2018: The Commission received information on Civic Engagement and took no action.</p>

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
4	Winter Preparedness Update	January 24 October 24	<ul style="list-style-type: none"> Receive information on the District's Winter Preparedness. (Information) 	<p>Accomplished January 24, 2018: The Commission received information on Winter Preparedness and took no action.</p>
5	Review and Comment to the Board on the Fiscal Year 2019 Preliminary Groundwater Production Charges	January 24	<ul style="list-style-type: none"> Review and comment to the Board on the Fiscal Year 2019 Preliminary Groundwater Production Charges. (Action) Submit requests to the Board, as appropriate. 	<p>Accomplished January 24, 2018: The Commission reviewed and had no comments to the Board on the Fiscal Year 2019 Preliminary Groundwater Production Charges.</p>
6	Review of Santa Clara Valley Water Commission Work Plan, the Outcomes of Board Action of Commission Requests and the Commission's Next Meeting Agenda	January 24 April 11 July 25 October 24	<ul style="list-style-type: none"> Receive and review the 2018 Board-approved Committee work plan. (Action) Submit requests to the Board, as appropriate. 	<p>Accomplished January 24, 2018: The Commission reviewed the 2018 work plan and took no action.</p>
7	Review and Comment to the Board on the Fiscal Year 2019 Proposed Groundwater Production Charges.	April 11	<ul style="list-style-type: none"> Review and comment to the Board on the Fiscal Year 2019 Proposed Groundwater Production Charges. (Action) Provide comments to the Board, as necessary. 	

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
8	Climate Change Mitigation – Carbon Neutrality by 2020 Program Update	April 11	<ul style="list-style-type: none"> • Receive information on climate change mitigation – carbon neutrality by 2020 program update. (Action) • Provide comments to the Board, as necessary. 	
9	Study of the District’s Groundwater Services Areas (“Zones of Benefit”)	April 11	<ul style="list-style-type: none"> • Receive information on the Study of the District’s Groundwater Services Areas. (Action) • Provide comments to the Board, as necessary. 	
10	Discussion on the Riparian Corridor Ordinance, Encroachment Process	July 25	<ul style="list-style-type: none"> • Discuss the Riparian Corridor Ordinance, Encroachment Process. (Action) • Provide comments to the Board, as necessary. 	
11	Climate Change and Sea Level Rise Adaptation – Water Supply, Flood Protection, Ecosystems Protection	July 25	<ul style="list-style-type: none"> • Receive information on climate change and sea level rise adaptation – water supply, flood protection, ecosystems protection. (Action) • Provide comments to the Board, as necessary. 	

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
12	Bigger Challenges Facing the District on Integrating the Need for Safe Drinking Water Supply, Flood Control and Protecting the Ecosystem and the Latest Research on “Urban Water Management”. on “Complex Interacting Systems for a Sustainable Future”	October 24	<ul style="list-style-type: none"> • Presentation from Professor Craig Criddle 	

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors



Commission Officers
Hon. Yoriko Kishimoto, Chair
Hon. Rishi Kumar, Vice Chair

Board Representative
Barbara Keegan, Alternate
Richard P. Santos, Board Representative
John L. Varela, Board Representative

DRAFT AGENDA

SANTA CLARA VALLEY WATER COMMISSION

WEDNESDAY, JULY 25, 2018

12:00 p.m. – 2:00 p.m.

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

**Time Certain:
12:00 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 Commission 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 – January 24, 2018, meeting
- 4. Action Items**
 - 4.1 Discussion on the Riparian Corridor Ordinance, Encroachment Process (Usha Chatwani)
Recommendation: This is a discussion item and the Committee may provide comments, however, no action is required.
 - 4.2 Climate Change and Sea Level Rise Adaptation – Water Supply, Flood Protection, Ecosystems (Garth Hall)
Recommendation: This is a discussion item and the Committee may provide comments, however, no action is required.
 - 4.3 Review Santa Clara Valley Water Commission Work Plan, the Outcomes of Board Action of Commission Requests and the Commission’s Next Meeting Agenda (Commission Chair)
Recommendation: Review the Board-approved Commission work plan to guide the committee’s discussions regarding policy alternatives and implications for Board deliberation.
- 5. Clerk Review and Clarification of Commission Requests to the Board**
This is a review of the Commission’s Requests, to the Board (from Item 4). The Commission may also request that the Board approve future agenda items for Commission discussion.

6. Reports

Directors, Managers, and Commission 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.

6.1 Director's Report

6.2 Manager's Report

6.3 Commission Member Reports

7. Adjourn: Adjourn to next regularly scheduled meeting at 12:00 p.m., **October 24, 2018**, 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 Headquarter 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 commission meetings. Please advise the Clerk of the Board office of any special needs by calling 1-408-630-2277.

Santa Clara Valley Water Commission's Purpose and Duties

The Santa Clara Valley Water Commission 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 in the areas of interest to Santa Clara County and the Towns and Cities therein.

The specific duties are:

- Prepare policy alternatives
- Provide comment on activities in the implementation of the District's mission
- 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, Commission members bring to the District their respective expertise and the interests of the communities they represent. In addition, Commissioners may help the Board produce the link between the District and the public through information sharing to the communities they represent.

What is a drought?

There is no single definition of a drought. However, one simple definition is that a drought is a period with abnormally low levels of precipitation that impacts water supply availability. Because there is no common indicator for when an area is experiencing a drought, the district focuses on whether we are experiencing a water shortage. We evaluate the severity of the shortage and identify actions needed to protect local water supplies through our water shortage contingency plan.



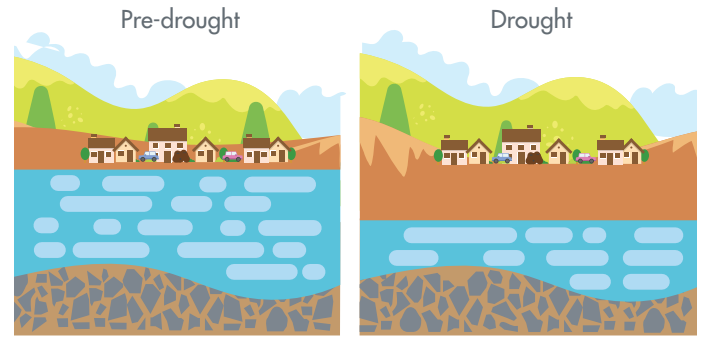
Lake Oroville

In multiple dry years surface water supplies are stressed

Why does it matter?

During a water supply shortage, the Santa Clara Valley Water District must rely more heavily on our reserves. This can include water stored in our ten surface water reservoirs or, more likely, water stored underground. However, there is not an unlimited supply of groundwater, and pumping too much can cause problems like overdraft and land subsidence (or sinking). These costly problems have occurred historically, with over 13 feet of subsidence in San José. So, when groundwater reserves are projected to fall below normal levels, the district works to secure more supplemental water and asks the community to reduce its water use.

Why is groundwater important?



Local groundwater reserves are lowered during multiple year droughts

About half the water used in Santa Clara County is pumped from the ground. A key district purpose is to maintain sustainable groundwater conditions and avoid the recurrence of long-term overdraft and subsidence. Groundwater reserves act like a savings account for our water supply. The district works to counterbalance the water pumped each year and keep this savings account full by replenishing groundwater. When groundwater withdrawals exceed replenishment, groundwater reserves are reduced. If this imbalance is severe or persistent, reserves may become dangerously low.

What happens when groundwater reserves are lowered?

Every year we evaluate how expected water supplies and demands will affect local groundwater storage. The district's water shortage contingency plan, which helps us proactively respond to water shortages, uses groundwater storage as the primary trigger for action. Related actions become more intense as projected groundwater reserves fall further below the normal stage. This helps ensure that groundwater reserves do not become so low that permanent subsidence resumes or wells go dry.

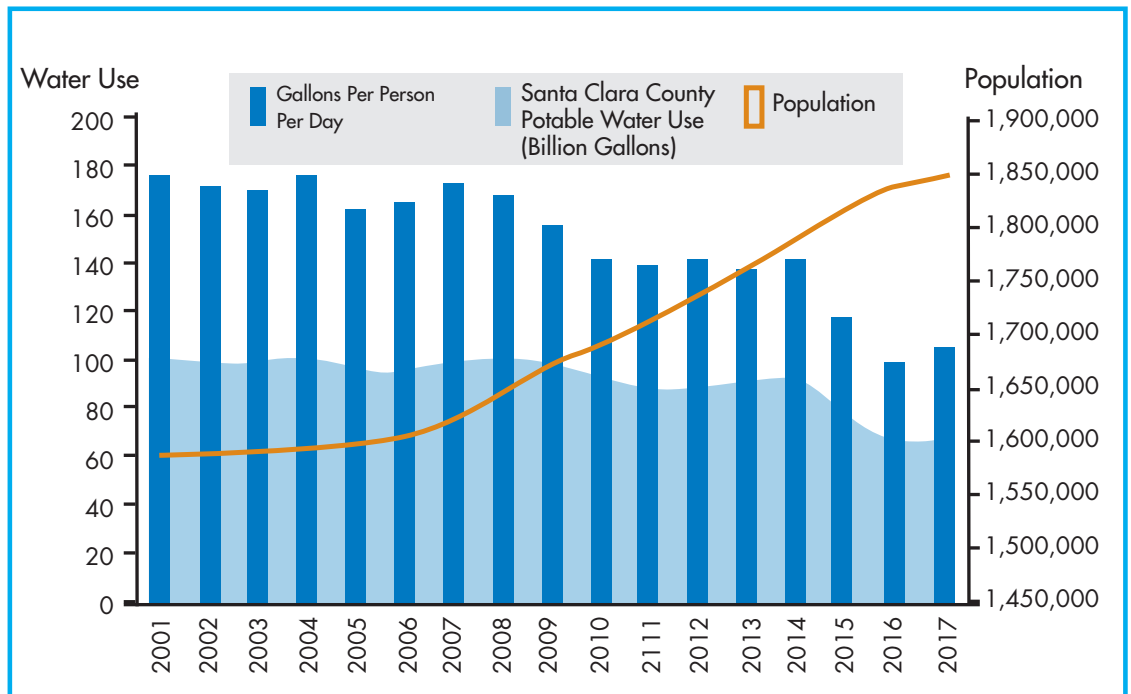
What can we do?

While we ask people to reduce water use in droughts, the district and its partners have long-term water conservation programs to increase water use efficiency in all years. These programs reduce the amount of water each person uses per day (per capita use) over long periods of time. Our goal is to reduce overall water use in the county by more than 20% by 2030, when compared to 2030 demands without conservation programs.



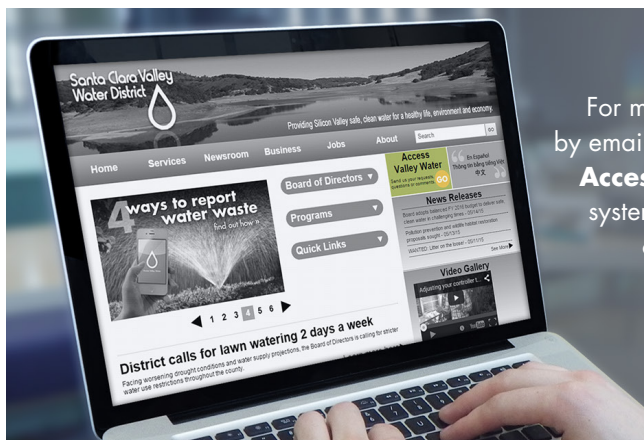
Water-wise plant selection for your California friendly garden

Water conservation programs support our Board's 2017 call to make water conservation a way of life. This is a low-cost investment for a healthier water supply. These efforts have reduced per capita use and have helped water demands stay relatively flat despite continued growth. A more reliable water supply will also reduce the amount of water the community needs to save in times of drought. By continuing to invest in water conservation and a diverse water portfolio, we can ensure water supplies will continue to be reliable to support Silicon Valley communities.



While population has increased, Santa Clara County residents are now using less water per person.

The Santa Clara Valley Water District is focused on preparing for future wet and dry years to ensure Santa Clara County's 1.9 million residents have a reliable water supply no matter what extreme weather the changing climate brings.



CONTACT US

For more information, contact us at **(408) 630-2554** or by email at **conservation@valleywater.org**. Or use our **Access Valley Water** customer request and information system at **valleywater.org** to find out the latest information on district projects or to submit questions, complaints or compliments directly to a district staff person.



Follow us on:

