

AGENDA FOR A REGULAR MEETING OF THE BOARD OF DIRECTORS  
OF THE VALLECITOS WATER DISTRICT  
WEDNESDAY, MARCH 15, 2017, AT 5:00 P.M.  
AT THE DISTRICT OFFICE  
201 VALLECITOS DE ORO, SAN MARCOS, CALIFORNIA

CALL TO ORDER – PRESIDENT ELITHARP

PLEDGE OF ALLEGIANCE

ROLL CALL

In the case of an emergency, items may be added to the Agenda by a majority vote of the Board of Directors. An emergency is defined as a work stoppage; a crippling disaster; or other activity which severely imperils public health, safety, or both. Also, items which arise after the posting of the Agenda may be added by a two-thirds vote of the Board of Directors.

ADOPT AGENDA FOR THE REGULAR MEETING OF MARCH 15, 2017

PUBLIC COMMENT

Persons wishing to address a matter not on the Agenda may be heard at this time; however, no action will be taken until the matter is placed on a future agenda in accordance with Board policy. Public comments are limited to three minutes. A Request to Speak form is required to be submitted to the Executive Secretary prior to the start of the meeting, if possible. Public comment should start by stating name, address and topic. The Board is not permitted during this time to enter into a dialogue with the speaker.

NOTICE TO THE PUBLIC

All matters listed under the Consent Calendar will be voted upon by one motion. There will be no separate discussion of these items, unless a Board member or member of the public requests that a particular item(s) be removed from the Consent Calendar, in which case it will be considered separately under Action Items.

CONSENT CALENDAR

1.1 APPROVAL OF MINUTES (pp. 5-17)

- A. CLOSED SESSION BOARD MEETING – FEBRUARY 15, 2017
- B. REGULAR BOARD MEETING – FEBRUARY 15, 2017
- C. FINANCE/INVESTMENT COMMITTEE MEETING – FEBRUARY 22, 2017

*Approved minutes become a permanent public record of the District.*

**Recommendation:            Approve Minutes**

1.2 WARRANT LIST THROUGH MARCH 15, 2017 – \$3,458,686.66 (pp. 18-23)

**Recommendation: Approve Warrant List**

1.3 FINANCIAL REPORTS (pp. 24-34)

- A. WATER METER COUNT – FEBRUARY 28, 2017
- B. WATER PRODUCTION/SALES REPORT – 2016/2017
- C. WATER REVENUE AND EXPENSE REPORT – FEBRUARY 28, 2017
- D. SEWER REVENUE AND EXPENSE REPORT – FEBRUARY 28, 2017
- E. RESERVE FUNDS ACTIVITY – FEBRUARY 28, 2017
- F. INVESTMENT REPORT – FEBRUARY 28, 2017

1.4 WINTER 2017 BETWEEN THE PIPES – VALLECITOS WATER DISTRICT  
QUARTERLY NEWSLETTER (pp. 35-38)

**Recommendation: Approve Winter 2017 Between the Pipes Newsletter**

\*\*\*\*\*END OF CONSENT CALENDAR\*\*\*\*\*

ACTION ITEMS

2.1 PUMP ZONE CHARGES (pp. 39-44)

*Surcharges are intended to recover the cost of electricity used to pump water to higher pressure zones.*

**Recommendation: Direction on the Board’s preferred methodology for:**  
**1) Pump charge allocation**  
**2) When surcharges should become effective**  
**3) Should there be a phased implementation for the revised surcharges**

2.2 CHANGE ORDER REQUEST FOR MEADOWLARK WATER RECLAMATION  
FACILITY (MRF) TERTIARY MEDIA FILTER REPLACEMENT (pp. 45-48)

*District Ordinance No. 146 requires Board approval for change orders exceeding 10% of the contract value.*

**Recommendation: Approve construction change order**

2.3 2017 COST OF SERVICE AND RATE STRUCTURE STUDY REVIEW AND UPDATE  
(pp. 49-67)

*Board consensus was to proceed with a water rate structure tiered by customer classes according to meter size.*

**Recommendation: For discussion only**

- 2.4 RESOLUTION CONCURRING IN NOMINATION TO THE EXECUTIVE COMMITTEE OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES/JOINT POWERS INSURANCE AUTHORITY (ACWA/JPIA) (pp. 68-72)

*San Bernardino Valley Water Conservation District is requesting Vallecitos Water District concur in the nomination of Melody McDonald to the Executive Committee of the ACWA/JPIA.*

**Recommendation: Request Board direction**

\*\*\*\*\***END OF ACTION ITEMS**\*\*\*\*\*

REPORTS

- 3.1 GENERAL MANAGER
- 3.2 DISTRICT LEGAL COUNSEL
- 3.3 SAN DIEGO COUNTY WATER AUTHORITY
- 3.4 ENCINA WASTEWATER AUTHORITY  
- *Capital Improvement Committee*  
- *Policy and Finance Committee*
- 3.5 STANDING COMMITTEES
- 3.6 DIRECTORS REPORTS ON MEETINGS/CONFERENCES/SEMINARS ATTENDED

\*\*\*\*\***END OF REPORTS**\*\*\*\*\*

OTHER BUSINESS

- 4.1 MEETINGS (pp. 73-74)

**SDNEDC North County Economic Summit**

April 12, 2017 – CSU San Marcos

**WEF Headwaters Tour**

April 27-28, 2017 – begins/ends at Sacramento International Airport

\*\*\*\*\***END OF OTHER BUSINESS**\*\*\*\*\*

- 5.1 DIRECTORS COMMENTS/FUTURE AGENDA ITEMS

\*\*\*\*\***END OF DIRECTORS COMMENTS/FUTURE AGENDA ITEMS**\*\*\*\*\*

- 6.1 ADJOURNMENT

\*\*\*\*\***END OF AGENDA**\*\*\*\*\*

If you have any disability which would require accommodation in order to enable you to participate in this meeting, please call the Executive Secretary at 760.744.0460 ext. 264 at least 48 hours prior to the meeting.

Audio and video recordings of all Board meetings are available to the public at the District website [www.vwd.org](http://www.vwd.org)

AFFIDAVIT OF POSTING

I, Diane Posvar, Executive Secretary of the Vallecitos Water District, hereby certify that I caused the posting of this Agenda in the outside display case at the District office, 201 Vallecitos de Oro, San Marcos, California by 4:00 p.m., Friday, March 10, 2017.

\_\_\_\_\_  
Diane Posvar

MINUTES OF A CLOSED SESSION MEETING OF THE BOARD OF DIRECTORS  
OF THE VALLECITOS WATER DISTRICT  
TUESDAY, FEBRUARY 15, 2017, AT 4:30 PM AT THE DISTRICT OFFICE,  
201 VALLECITOS DE ORO, SAN MARCOS, CALIFORNIA

President Elitharp called the Closed Session meeting to order at the hour of 4:37 p.m.

Director Hernandez led the pledge of allegiance.

Present: Director Elitharp  
Director Evans  
Director Hernandez  
Director Martin  
Director Sannella (arrived at 4:45 p.m.)

Staff Present: General Manager Pruim  
Legal Counsel Scott  
Executive Secretary Posvar

ADOPT AGENDA FOR THE CLOSED SESSION MEETING OF FEBRUARY 15, 2017

17-02-10 MOTION WAS MADE by Director Hernandez, seconded by Director Evans, and carried unanimously to adopt the agenda for the Closed Session Meeting of February 15, 2017.

PUBLIC COMMENT

None.

CLOSED SESSION

CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54957 – GENERAL MANAGER

17-02-11 MOTION WAS MADE by Director Hernandez, seconded by Director Evans, and carried unanimously, with Director Sannella absent, to move into Closed Session pursuant to Government Code Section 54957.

REPORT AFTER CLOSED SESSION

The Board reconvened to Open Session at the hour of 4:50 p.m. The Board, in Closed Session, directed staff to bring back a cost of living adjustment to the General Manager's employment agreement at a future meeting.

ADJOURNMENT

There being no further business to discuss, President Elitharp adjourned the Closed Session Meeting of the Board of Directors at the hour of 4:51 p.m.

A Regular Meeting of the Vallecitos Water District Board of Directors has been scheduled for Wednesday, February 15, 2017, at 5:00 p.m. at the District office, 201 Vallecitos de Oro, San Marcos, California.

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Craig Elitharp, President  
Board of Directors  
Vallecitos Water District

ATTEST:

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Glenn Pruum, Secretary  
Board of Directors  
Vallecitos Water District

MINUTES OF A REGULAR MEETING OF THE BOARD OF DIRECTORS  
OF THE VALLECITOS WATER DISTRICT  
WEDNESDAY, FEBRUARY 15, 2017, AT 5:00 PM AT THE DISTRICT OFFICE,  
201 VALLECITOS DE ORO, SAN MARCOS, CALIFORNIA

President Elitharp called the Regular meeting to order at the hour of 5:00 p.m.

Director Martin led the pledge of allegiance.

Present: Director Elitharp  
Director Evans  
Director Hernandez  
Director Martin  
Director Sannella

Staff Present: General Manager Pruium  
Assistant General Manager Scaglione  
Legal Counsel Scott  
District Engineer Gumpel  
Finance Manager Fusco  
Operations & Maintenance Manager Pedrazzi  
Development Services Senior Engineer Scholl  
Accounting Supervisor Owen  
Public Information/Conservation Supervisor Robbins  
Financial Analyst Arthur  
Executive Secretary Posvar

Others Present: Mike Steinlicht, General Manager, Encina Wastewater Authority  
James Kearns, Budget Manager, Encina Wastewater Authority  
Joe Spence, Encina Wastewater Authority  
Scott Goldman, Principal, RMC Water and Environment  
Nathan Chase, RMC Water and Environment  
Ken Weinberg, Retired, San Diego County Water Authority

ADOPT AGENDA FOR THE REGULAR MEETING OF FEBRUARY 15, 2017

17-02-12 MOTION WAS MADE by Director Sannella, seconded by Director Hernandez, and carried unanimously, to adopt the agenda for the Regular Board Meeting of February 15, 2017.

PRESENTATIONS

President Elitharp presented Ivan Murguia, Wastewater Treatment Plant Operator II, with his Certificate of Competence for Grade IV Wastewater Treatment Plant Operator from the State Water Resources Control Board.

President Elitharp presented David Joiner, Electrical/Instrumentation Technician, with his Certificate of Completion for Programmable Logic Controller II Certificate.

Mike Steinlicht, General Manager for Encina Wastewater Authority (EWA), introduced Scott Goldman, Principal, RMC Water and Environment, who along with Nathan Chase also of RMC and Ken Weinberg, retired from the San Diego County Water Authority, provided a presentation to update the Board on EWA's Water Pollution Control Facility (EWPCF) Water Reuse Feasibility Study which included the following:

- Project Feasibility Requirements
- EWPCF Projected Flows
- Available EWPCF Effluent in 2040
- EWPCF 2040 Projected NPR + IPR/DPR
- Projected Wastewater Flow (from North San Diego Water Reuse Coalition)
- Potential Recycled Water Demand (from NSDWRC)
- Regional Context for Reuse Project
- EWA Options for Reuse
- Portfolio of Options – 2040 Flows
- Screening Criteria for Potable Reuse Options
- Screening Criteria, Weighting, and Scoring
- Options Ranking
- Preferred Options for Further Analysis
- Stakeholder Outreach
- Water Reuse Project Considerations for EWA and Partnering Water Purveyor(s)
- Timeline of Stakeholder Activities

General discussion and question/answer took place.

Mr. Steinlicht introduced Joe Spence and James Kearns who provided a presentation on EWA's FY2018 Proposed Capital Program Budget detailing the following:

- Budget Process
- FY2018 Budget Summary
- EWA Operating Expenses
- Capital Program
- Capital Expense Categories
- EWA Capital Expenses
- Looking Forward
- FY2018 – 2023 Projects Overall Cost Summary
- CIP Budget Summary by Process Area
- FY2018 Projects Overall Cost Summary
- Summary of Capital Expenses

General discussion and question/answer took place.



PUBLIC COMMENT

Mike Hunsaker, member of the public, addressed the Board expressing his concerns regarding the amount of wastewater treatment the District has, the developer deferred fee payment plan, the public's ability to participate in the rate process, the amount of solid waste there is and the possibility of the Oroville Dam failing. He thanked the Board.

CONSENT CALENDAR

President Elitharp stated he received a request to speak on Item 1.1. Director Martin requested Item 1.3 be pulled from the Consent Calendar for discussion.

17-02-13 MOTION WAS MADE by Director Martin, seconded by Director Sannella, and carried unanimously, to approve Item 1.2 of the Consent Calendar as presented.

1.1 Approval of Minutes

- A. Finance/Investment Committee Meeting – January 24, 2017
- B. Board Workshop Meeting – February 1, 2017
- C. Regular Board Meeting – February 1, 2017

Mike Hunsaker, member of the public addressed the Board stating that since there were two very long meetings of great importance, he checked the video archives to review what he and others said during those meetings. He found that as of last night, for about five weeks a lot of the archived video/audio has been "pending." He was informed there was an issue of whether or not there was a problem with the synchronization of the audio with the video and asked how much longer it would be before this problem was corrected. He has some potential discrepancies about the minutes he would like to discuss, but has no means of double checking exactly what he said. He'd like to have the minutes carried through until the videos and audio are available on the public website.

Executive Secretary Posvar responded to Mr. Hunsaker's concern, stating that the minutes are not posted on the District's website until they are approved by the Board. For example, the minutes included in today's Board agenda packet will be posted after they are approved. As for the archived videos, Director Sannella verified that they are up to date with the exception of the Board workshop which took place on February 13.

Director Martin stated that Item 1.1 C, section 1.3 of the minutes of the February 1, 2017 Regular Board meeting should be corrected to state that he had received a donation in the form of a check from Rancho Coronado, not Rachel Coronado.

17-02-14 MOTION WAS MADE by Director Martin, seconded by Director Sannella, and carried unanimously, to approve Items 1.1 and 1.3 of the Consent Calendar with the amendment to the February 1, 2017 minutes as discussed.

1.2 Warrant List through February 15, 2017 - \$1,701,240.20

1.3 Financial Reports

- A. Water Meter Count – January 31, 2017
- B. Water Production/Sales Report – 2016/2017
- C. Water Revenue and Expense Report – January 31, 2017
- D. Sewer Revenue and Expense Report – January 31, 2017
- E. Reserve Funds Activity – January 31, 2017
- F. Quarterly Investment Report

#### ACTION ITEMS

#### RESCINDING DROUGHT LEVEL 1

Public Information/Conservation Supervisor Robbins stated that on January 26, 2017, the San Diego County Water Authority (SDCWA) declared the drought over in San Diego County. Neither the SDCWA nor Vallecitos are experiencing supply shortages due to drought. The District met its mandatory savings target after the state imposed emergency regulations in 2015, and in May 2016, when the state updated its emergency regulation to a water supply “stress test” methodology that took actual levels of local supply reliability into account, the District showed sufficient supplies to avoid shortages even if it experiences three more dry years.

He further stated that as of February 1, 2017, the Sierra Nevada snowpack was 177% of the historic average, the largest amount in more than two decades. There is no need at this time to demand reductions from the District’s customers; however, District Ordinance No. 198 includes mandatory water use restrictions such as watering between the hours of 10:00 a.m. and 6:00 p.m., and restaurants only serving water upon request.

Staff recommended the Board rescind the Drought Level 1 – Drought Watch that asks for voluntary water conservation.

General discussion took place regarding how to announce the District’s rescission of Drought Level 1 – Drought Watch via press release, District newsletter, and social media as well as the need for emphasis on the importance of the permanent mandatory water use restrictions.

17-02-15 MOTION WAS MADE by Director Sannella, seconded by Director Hernandez, and carried unanimously, to rescind Drought Level I – Drought Watch as recommended by staff.

## WATER RATE STRUCTURE DEVELOPMENT UPDATE

Assistant General Manager Scaglione provided a presentation to update the Board on the progress of the water rate structure development which included:

- Cost Considerations
- Demand Projection Graph
- Demand Projection Table
- Demand by Source of Supply
- Determining Customer Classification – Meter Size vs. Customer Type
- Allocating Tiers to Customer Classes
- Tier Limits
- Alternative Tier Limits
- Tier Limit Comparison
- Cost Allocation
- Revenue Offsets
- Peaking Factors and Allocation
- Capital Replacement
- Allocating Capital Costs to User Charges (RTS and Commodity)
- Distribution of Costs
- Cost of Service and Rate Structure Study Time Line

General discussion took place regarding unbilled water during which Director Sannella suggested a review of District facilities such as sinks and toilets to identify inefficiencies in regard to unbillable water that is lost compared to the cost of upgrading facilities. Director Martin requested data on the District's cost to replace fire hydrants that have been hit or damaged and the District's cost recovery ratio, to which staff responded.

Assistant General Manager Scaglione asked for the Board's direction to proceed with determining customer classification by the current method, meter size, as it appears to be the most homogeneous grouping.

General discussion/question and answer took place. Consensus to move forward by tiers by meter size was given.

Assistant General Manager Scaglione asked for the Board's direction in determining tier limits. The consensus of the Board was to direct staff to proceed with staff's recommendation of splitting the desal between Tiers 2 and 3, with the Tier 1 limit capturing OMWD water, and the Tier 2 Limit equal to the average maximum demand.

Assistant General Manager Scaglione anticipates the Draft Cost of Service and Rate Structure Study will be complete and ready to present to the Board on April 19.

General discussion took place.

Mike Hunsaker, member of the public addressed the Board stating that over the years he has observed the District, he has found staff to be much more accurate than the County as far as water projections. It looks fairly reasonable provided that we have a reasonable amount of development. There may be an issue with Tier 1 if you are charging anyone for water that is below cost. He thinks it's important to note to the public that there is a reason why the water is costing much more than in a wet year. We pay for reliability. We have fixed contracts and pay fixed costs which help a lot in drought years and cost quite a bit in wet years. He suggested the use of graphs to illustrate minimum average use and maximum average use more easily. He complimented staff on using 2016 figures. He thanked the Board.

### SAN MARCOS BOYS AND GIRLS CLUB ANNUAL AUCTION

General Manager Pruim stated this item was placed on the agenda for the Board's consideration of District support for the 2017 Boys and Girls Club annual auction on Saturday, April 29, 2017.

General discussion took place regarding whether or not to purchase a table at the event. In previous years it has been difficult to fill a table of ten attendees. Director Martin suggested if staff bring a spouse/significant other to the event, staff does not have to pay for their guest's ticket as allowable by law. Legal Counsel Scott stated Board members are required by law to pay for their spouse/significant other's attendance to the event.

17-02-16 MOTION WAS MADE by Director Martin, seconded by Director Hernandez, and carried 4-1, with Director Evans voting no, to tentatively approve the purchase of a table of ten only if attendance to fill the table is confirmed and no per diem is authorized.

### REPORTS

#### GENERAL MANAGER

General Manager Pruim reported the following:

- The District completed lead testing within the San Marcos School District. The results of the testing have been forwarded to the School District so that they may take appropriate actions if necessary.
- The officials at Lake Oroville are trying to draw down the lake level as much as possible prior to the predicted storms.
- Due to the lack of a quorum and any urgent agenda items, he is cancelling the March 1 Regular Board meeting.

DISTRICT LEGAL COUNSEL

Legal Counsel Scott reported on a local 218 case, Plantier vs. Ramona Municipal Water District. The case involves a challenge to the method the district uses to calculate sewer fees. The first phase relates to whether the Plaintiff properly challenged the fee and exhausted his remedies before filing suit. The case is pending before the Court of Appeals and is receiving state-wide attention.

SAN DIEGO COUNTY WATER AUTHORITY

Director Evans stated the next Board meeting is scheduled on February 23.

ENCINA WASTEWATER AUTHORITY

Director Hernandez reported on his attendance to the Capital Improvement Committee meeting this morning at which capital improvement projects (digesters, regenerative thermal oxidizer) were reviewed, a potential contract for assessment of capital was discussed, and the meeting time was moved from 7:30 a.m. to 8:00 a.m.

President Elitharp reported on his attendance to the Policy and Finance Committee meeting on February 27 at which the Committee established meeting dates for 2017 and heard a report on the CalPERS discount rate reduction.

STANDING COMMITTEES

None.

DIRECTORS REPORTS ON TRAVEL/CONFERENCES/SEMINARS ATTENDED

Directors Evans, Hernandez, Elitharp and Martin reported on their attendance to the Urban Water Institute's Spring Water Conference.

Director Sannella reported on his attendance to the San Diego North Economic Development Council Investor meeting on February 9.

OTHER BUSINESS

None.

DIRECTORS COMMENTS/FUTURE AGENDA ITEMS

Director Martin commented there might be a need to reschedule the cancelled March 1 Board meeting. General Manager Pruiem will determine if there are any pressing items that cannot wait until the March 15 Board meeting.

Director Hernandez would like to schedule a time for the Board to tour the South Lake area. Legal Counsel Scott cautioned a tour such as this would be subject to the Brown Act if more than two Directors attend the tour at the same time and recommended the Board tour the South Lake facilities in groups of two, two and one.

ADJOURNMENT

There being no further business to discuss, President Elitharp adjourned the Regular Meeting of the Board of Directors at the hour of 8:17 p.m.

A Regular Meeting of the Vallecitos Water District Board of Directors has been scheduled for Wednesday, March 15, 2017, at 5:00 p.m. at the District office, 201 Vallecitos de Oro, San Marcos, California.

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Craig Elitharp, President  
Board of Directors  
Vallecitos Water District

ATTEST:

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Glenn Pruum, Secretary  
Board of Directors  
Vallecitos Water District

MINUTES OF A MEETING OF THE  
FINANCE/INVESTMENT COMMITTEE  
OF THE VALLECITOS WATER DISTRICT  
WEDNESDAY, FEBRUARY 22, 2017 AT 5:00 P.M.  
AT THE DISTRICT OFFICE, 201 VALLECITOS DE ORO,  
SAN MARCOS, CALIFORNIA

Director Martin called the meeting to order at the hour of 5:00 p.m.

Present: Director Martin  
Director Sannella  
General Manager Pruim  
Assistant General Manager Scaglione  
Finance Manager Fusco  
Accounting Supervisor Owen  
Financial Analyst Arthur  
Administrative Secretary Johnson

Others Present: Director Elitharp  
Director Evans

ITEM FOR DISCUSSION

BUDGET AND RATE STUDY UPDATE

General Manager Pruim stated topics for discussion at this meeting would include water and wastewater reserves to provide more clarity, updates on the budget and rate development processes, as well as unbilled water.

Finance Manager Fusco discussed in detail the water and wastewater reserves graph that was previously presented at the last Finance/Investment Committee meeting and Board workshop, demonstrating how the graph correlates to figures from the Reserve Report which is included monthly in the Board agenda packets. He presented graphs illustrating trends in capacity and replacement reserves. Data from FY 07/08 through FY 15/16 indicates the following:

- Water capacity reserves have been trending downward since FY09/10, primarily due to several large projects and debt funding.
- Water replacement reserves are close to what was budgeted.
- Wastewater capacity reserves have been trending downward.
- Wastewater replacement reserves have been trending downward; however, they are better than what was budgeted.

General discussion and question/answer took place.

Finance Manager Fusco provided information on salary and benefit data for FY11/12 through FY15/16, the current FY16/17 budget, and projections for the year end FY16/17. Currently, salaries are projected to be approximately \$771,000 below what was budgeted mainly due to having 3.75 fewer employees and employees out on medical leave and modified work schedules. Director Sannella requested further information on this.

General discussion took place.

Finance Manager Fusco distributed copies of a budget worksheet showing revenues and operating expenses by department, actual FY15/16 budget, estimated FY16/17 budget and projections for its year end, estimated FY17/18 budget, and budget-to-budget comparisons. He explained how the worksheet is utilized in the budget process. At the next Committee meeting, actual numbers will be populated in the worksheet for discussion.

Assistant General Manager Scaglione provided a presentation on unbilled water as follows:

- Recent Legislation on Water Loss Management
- Objectives of Water Loss Audit
- AWWA's Water Balance
- Water Audit Result Metrics/KPIs
- Rate Structure Change Impacts

General discussion took place during which General Manager Pruim stated the District's three-year average of unbilled water is 5.6%.

Director Martin requested a comparison of how Olivenhain Municipal Water District's tier structure compares to Vallecitos' tier structure. General Manager Pruim explained that each district will be different because sources of water, supplies, costs and debt loads vary for each district. Director Sannella requested information on how the District's debt compares to other districts. Finance Manager Fusco will provide this information at the next Committee meeting.

Assistant General Manager Scaglione provided a presentation on rate structure change impacts during which he presented monthly bill analysis for meters ranging in size from 5/8" to 3". Analysis of multi-family customers will be presented at the next Committee meeting as well as cost of service studies from other districts.

Director Martin requested information on the District's last ten rate increases, including date, amount of increase, percentage of increase, and the effect the purchase of desal water has had.



Letters will be mailed on February 24 to customers affected by the pump zone increase. Directors Martin and Sannella requested information on rate increase complaints by division.

### OTHER BUSINESS

Director Martin requested a copy of the current MOU for discussion at the next Committee meeting.

Director Sannella requested a list of recurring contracts or agreements over \$100,000 annually that need to be bid out per the District's purchasing policy. He would like this topic placed on the next Board agenda, if possible, or the one after that.

Director Martin requested information on possible outsourcing of functions in an effort to save money wherever possible.

The Committee confirmed it will meet on March 22 and March 29 at 5:00 p.m.

### PUBLIC COMMENT

Mike Hunsaker, member of the public, inquired about what he referred to as the "deferred capacity fee payment plan" (there is no such plan; the District changes the due date for the fee and charges the fee that is current on the due date), the water loss average, and tiers for commercial and agricultural (rate structure is by meter size, not customer class), to which staff responded.

### ADJOURNMENT

There being no further business to discuss, the meeting was adjourned at the hour of 6:30 p.m.

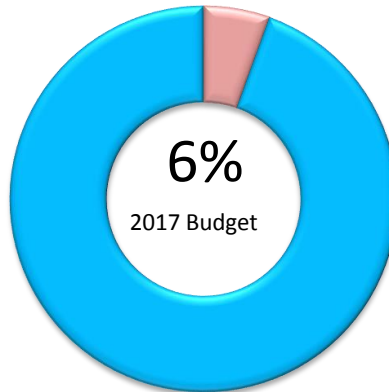
**VALLECITOS WATER DISTRICT  
WARRANTS LIST SUMMARY  
March 15, 2017**

**Summary**

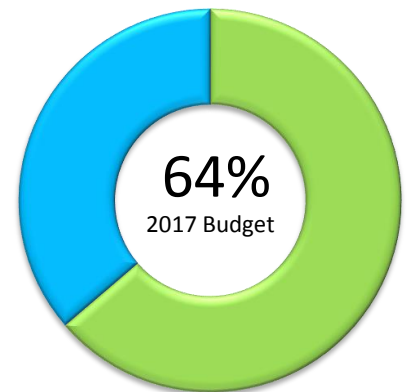
|                |    |              |
|----------------|----|--------------|
| March Warrants | \$ | 3,458,687 *  |
| YTD Warrants   | \$ | 40,027,636 * |
| FY2017 Budget  | \$ | 62,827,000   |

\* Excludes Debt Service

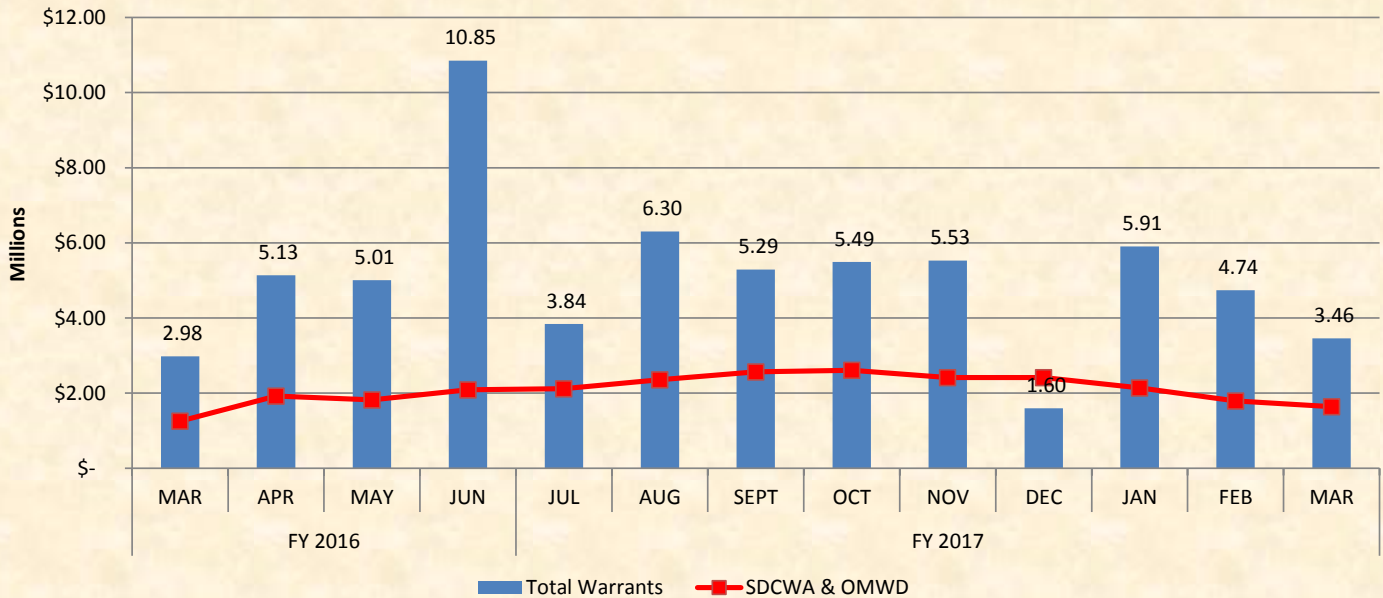
**March**



**FYTD**

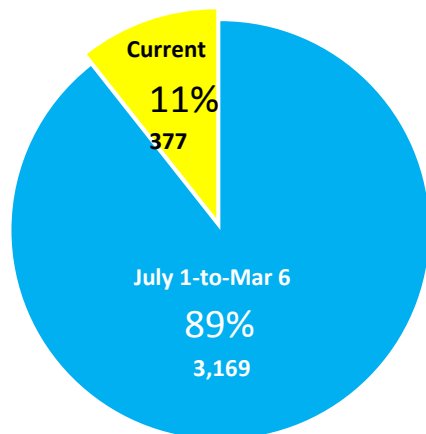


**Historical Warrants by Month\*\***



\*\* Historical Warrants by Month chart summarizes amounts in the Warrants List for the given month not amounts paid during the month with the exception of SDCWA & OMWD payments.

**Invoices Processed**



**Top 10 Vendors - FYTD**

|                                   |         |
|-----------------------------------|---------|
| SAN DIEGO COUNTY WATER AUTH.      | \$19.1M |
| ENCINA WASTEWATER AUTHORITY       | \$3.4M  |
| PUBLIC EMPLOYEES RETIRE SYSTEM    | \$1.9M  |
| ACWA/JOINT POWERS INSURANCE       | \$1.9M  |
| SAN DIEGO GAS & ELECTRIC          | \$837K  |
| OLIVENHAIN MWD                    | \$538K  |
| SAN ELIJO HILLS DEVELOPMENT CO... | \$296K  |
| BENS ASPHALT & MAINTENANCE CO...  | \$291K  |
| BLACK & VEATCH CORPORATION        | \$249K  |
| US PEROXIDE, LLC                  | \$188K  |

VALLECITOS WATER DISTRICT  
WARRANTS LIST  
March 15, 2017

| PAYEE                                 | DESCRIPTION  | CHECK#         | AMOUNT     |
|---------------------------------------|--|----------------|------------|
| <b>CHECKS</b>                         |  |                |            |
| ACWA/Joint Powers Insurance           | Worker's Compensation Quarter Ending 12-31-16                            | 110138         | 43,597.62  |
| Home Depot Credit Services            | Hardware Supplies  | 110139         | 597.87     |
| Sam Mountney                          | Deposit Refund Prj 20171-244   | 110140         | 1,798.15   |
| Union Bank FKA First Bank Card        | Meetings & Travel Jan  | 110141         | 2,846.94   |
| Union Bank FKA First Bank Card        | Meetings & Travel Jan  | 110142         | 978.39     |
| Union Bank FKA First Bank Card        | Meetings & Travel Jan  | 110143         | 4,744.12   |
| Union Bank FKA First Bank Card        | Meetings & Travel Jan  | 110144         | 904.94     |
| Verizon Wireless                      | IPad & Cell Phone Svc Jan  | 110145         | 1,724.07   |
| Garnishments                          | Payroll Garnishments   | 110146 through | -          |
| ACWA/Joint Powers Insurance           | Group Insurance March  | 110150         | 188,454.03 |
| Adobe Lock & Safe                     | Lock Replacement Water Ops Bathroom Door                                 | 110151         | 320.98     |
| AH Water Inc.                         | Carbon Scrubber Rental Mar   | 110152         | 1,573.15   |
| Airgas USA LLC                        | Cylinder Rental  | 110153         | 92.41      |
| J.C. Ehrlich Co Inc.                  | Plant Maintenance Feb  | 110154         | 263.00     |
| American Backflow Specialties Inc.    | Meter Calibration  | 110155         | 164.58     |
| Aqua-Metric Sales Co                  | Meters 71, Meter Registers 40  | 110156         | 20,882.88  |
| Richard Arballo                       | Water Quality Workshop 2-2-17  | 110157         | 50.44      |
| AT&T                                  | Phones Svc Jan   | 110158         | 2,108.29   |
| AT&T                                  | Phone Svc SCADA Feb  | 110159         | 218.65     |
| Bearcom                               | Annual Svc District Repeater Radio                                       | 110160         | 495.00     |
| Black & Veatch Corporation            | Water & Sewer Master Plan Prj 20141-3, Recycled Water Plan Prj 20141-712 | 110161         | 23,942.38  |
| Boncor Water Systems                  | Soft Water Svc & Drinking Water Svc Feb                                  | 110162         | 1,645.00   |
| Bonsall Petroleum Constr Inc.         | Svc Call Fuel Island   | 110163         | 56.25      |
| California Special Dist Assn.         | Meeting 2-16-17, Hernandez, Martin, Sannella                             | 110164         | 60.00      |
| City of Carlsbad                      | Quarterly Sewer Svc Oct - Dec  | 110165         | 6,674.40   |
| City of San Marcos                    | Right of Way Permit  | 110166         | 50.00      |
| Jeffrey Colwell                       | Video Production Prj 20171-28  | 110167         | 428.75     |
| Core Logic Information Solutions Inc. | Real Quest Annual Svc Fee For Engineering Maps, Engineering Map Svc Jan  | 110168         | 600.00     |
| Corodata Media Storage Inc.           | Back Up Storage Tape Jan   | 110169         | 156.50     |
| County of San Diego                   | Inspection Svcs Prj 20161-4  | 110170         | 1,295.60   |
| Craig Elitharp                        | Urban Water Institute Conference 2-8-17                                  | 110171         | 264.53     |
| Daniel Prieto                         | Laser Fiche Conference 2-7-17  | 110172         | 197.44     |
| Diamond Environmental Services        | Portable Restroom MRF  | 110173         | 273.53     |
| Diane L. Jones                        | Sewer Easement Prj 90003   | 110174         | 6,600.00   |
| Eurofins Eaton Analytical Inc.        | Algae Id Analysis Mahr   | 110175         | 210.00     |
| Ford of Escondido                     | Ford F-550 Prj 20171-18  | 110176         | 37,542.43  |
| Harrington Industrial                 | Injection System Parts MRF   | 110177         | 712.21     |
| Harrison Power Equipment              | Service Veh 225  | 110178         | 203.54     |
| Health Dimensions                     | Wellness Fair Set Up   | 110179         | 150.00     |
| Hortencia Ochoa                       | Credit Balance Refund  | 110180         | 462.20     |
| Huntington & Associates, Inc.         | Pump Control Valve Repair Pump Station 3                                 | 110181         | 4,862.60   |
| Infosend Inc.                         | Support Fee, Postage & Printing Jan                                      | 110182         | 3,764.53   |
| Jeff Katz                             | Building B Locker Room Prj 20161-5                                       | 110183         | 330.17     |
| JCI Jones Chemicals Inc.              | Chlorine   | 110184         | 1,944.35   |
| Kennedy/Jenks Consultants             | San Marcos Interceptor Prj 71004, Chlorine Tank Expansion Prj 20161-2    | 110185         | 68,960.46  |
| Law Offices of Jeffrey G Scott        | Legal Svcs Jan   | 110186         | 15,239.50  |
| Lawnmowers Plus Inc.                  | Hardware Supplies  | 110187         | 276.65     |
| Lloyd Pest Control                    | Pest Control Jan   | 110188         | 764.00     |
| Major League Pest                     | Bee Hive Removals 2  | 110189         | 240.00     |
| Manpower Temp Services                | Customer Service Rep Week Ending 2-5-17                                  | 110190         | 832.49     |
| Hal Martin                            | Urban Water Institute Conference 2-8-17                                  | 110191         | 162.13     |
| Matheson Tri-Gas Inc.                 | Cylinder Rental  | 110192         | 50.54      |
| North County Auto Parts               | Fleet Supplies Jan   | 110193         | 918.06     |
| One Source Distributors LLC           | Analog Card  | 110194         | 1,775.87   |
| Ostari Inc.                           | IT Support Jan   | 110195         | 3,037.50   |
| Pacific Pipeline Supply               | Valves 3, Repair Kits 2, Hi Line Trailer Supplies Prj 20161-42           | 110196         | 2,333.64   |
| Panoramic Development LLC             | Deposit Refund Prj 20171-248   | 110197         | 470.02     |
| Parkhouse Tire Inc.                   | Tires 6 Veh 231, Fleet Restocking Tires 8                                | 110198         | 3,283.61   |
| Pencco, Inc.                          | Sulfend RT   | 110199         | 6,629.39   |

VALLECITOS WATER DISTRICT  
WARRANTS LIST  
March 15, 2017

| PAYEE                               | DESCRIPTION   | CHECK#                | AMOUNT    |
|-------------------------------------|---|-----------------------|-----------|
| Polydyne Inc.                       | Clarifloc   | 110200                | 15,479.15 |
| Readdle Inc.                        | Fluix Subscription Jul 17- Feb 18                               | 110201                | 534.10    |
| Rincon Del Diablo MWD               | Calendars & Contest Forms Prj 20171-29                          | 110202                | 3,976.56  |
| Rose Auto Body                      | Collison Damage Repair Veh 234                                  | 110203                | 1,645.29  |
| Rusty Wallis Inc.                   | Soft Water Svc Feb  | 110204                | 225.00    |
| SDG&E                               | Power Jan   | 110205                | 72,114.73 |
| Schmidt Fire Protection Co Inc.     | Quarterly Sprinkler Inspections                                 | 110206                | 957.00    |
| Southern Counties Lubricants, LLC   | Unleaded Gasoline, Diesel Fuel, Oil MRF                         | 110207                | 28,648.62 |
| Southwest Valve & Equipment         | Valve Actuator  | 110208                | 1,033.98  |
| Accent Electronics, Inc.            | Svc Paging System   | 110209                | 712.50    |
| Staples Advantage                   | Office Supplies   | 110210                | 64.32     |
| T.S. Industrial Supply              | Paint Stock & Hardware Supplies                                 | 110211                | 1,658.48  |
| Test America Laboratories Inc.      | Water Sampling  | 110212                | 322.50    |
| Thyssen Krupp Elevator              | Elevator Maintenance Feb - Apr                                  | 110213                | 962.71    |
| Tony's Custom Upholstery            | Cover For Crane Veh 197   | 110214                | 393.00    |
| Underground Service Alert           | Dig Alert Jan   | 110215                | 279.00    |
| Unisys Corporation                  | Annual File Management EOM Feb 17- Feb 18                       | 110216                | 693.30    |
| Univar USA Inc.                     | Sodium Hypo Liquichlor, Sodium Bisulfite                        | 110217                | 7,763.42  |
| Vaughan's Indust Repair Inc.        | Refurbish Pump 1 Deer Springs Pump Station Prj 20171-8          | 110218                | 8,637.40  |
| Tri-City Emergency Medical Group    | Medical Svcs  | 110219                | 210.00    |
| Xerox Corporation                   | Copier Lease Dec & Jan  | 110220                | 5,134.02  |
| APGN Inc.                           | Aeration Blower MRF Payment 12 Of 24                            | 110221                | 4,069.00  |
| Applied Best Practices, LLC         | Bond Continuing Disclosure                                      | 110222                | 2,031.00  |
| Black Oxide Service Inc.            | Hardware Supplies   | 110223                | 225.00    |
| Boot World Inc.                     | Safety Boots  | 110224                | 150.00    |
| Bradley's Pro Clean Inc.            | Cleaning Supplies   | 110225                | 61.63     |
| California Nozzle Specialists Inc.  | Hoses 2   | 110226                | 413.07    |
| Computer Protection Technology Inc. | Back Up Power Supply  | 110227                | 1,451.93  |
| County of San Diego                 | Recording Fees  | 110228                | 43.00     |
| Dion International Trucks LLC       | Fleet Supplies  | 110229                | 329.76    |
| Doane & Hartwig Water Systems Inc.  | Chlorine Analyzer Parts & Chlorine Gas Detector MRF             | 110230                | 2,439.40  |
| Hidden Valley Steel & Scrap, Inc.   | Steel Sheet   | 110231                | 68.11     |
| Electrical Sales Inc.               | Solar Panels 3 Coggan Tank                                      | 110232                | 952.96    |
| Ferguson Enterprises, Inc.          | Air Valves 5, Hardware Supplies                                 | 110233                | 1,453.24  |
| Ford of Escondido                   | Fleet Supplies  | 110234                | 117.94    |
| Grainger Inc.                       | Safety Shower/Eye Station Mahr, Hardware Supplies               | 110235                | 2,947.38  |
| Ken Grody Ford                      | Transmission Replacement Veh 219                                | 110236                | 2,657.98  |
| Infinisource                        | Administrative Svcs Jan   | 110237                | 80.00     |
| Infrastructure Engr Corp            | Wet Well Room Prj 20171-4                                       | 110238                | 174.85    |
| Laser Cut Concrete Cutting Inc.     | Core Drilling Svc   | 110239                | 220.00    |
| Pacific Safety Center               | Membership Renewal April 17-April 18                            | 110240                | 280.00    |
| Plumbers Depot Inc.                 | Leak Detector Repair  | 110241                | 336.08    |
| S & J Supply Company, Inc.          | Brass Inventory   | 110242                | 1,567.14  |
| Unifirst Corporation                | Uniform Delivery  | 110243                | 2,462.38  |
| VAP Enterprises Inc.                | Right of Way Acquisitions 3 Prj 71004, Prj 90003 & Prj 20161-26 | 110244                | 3,740.00  |
| Visser Construction Inc.            | Car Wash Roof Repair  | 110245                | 2,134.00  |
| Walters Wholesale Electric          | Analyzer Replacement MRF, Hardware Supplies                     | 110246                | 2,227.58  |
| Waxie Sanitary Supply               | Cleaning Supplies   | 110247                | 267.94    |
| Garnishments                        | Payroll Garnishments  | 110248 through 110251 | -         |
| A & Y Asphalt Contractors Inc       | Asphalt Main Break Repair 1 Location, Asphalt Svcs 11 Locations | 110252                | 52,165.00 |
| ACWA                                | Conference Sponsorship Prj 20171-27                             | 110253                | 1,000.00  |
| Applied Indust. Tech.               | Hardware Supplies   | 110254                | 72.60     |
| Ashkan Seisun                       | Closed Account Refund   | 110255                | 71.88     |
| AT&T                                | Phone Svc Jan   | 110256                | 19.66     |
| Boot Barn                           | Safety Boots  | 110257                | 140.60    |
| Boot World Inc                      | Safety Boots  | 110258                | 150.00    |
| Brady Sand & Material Inc           | Rock & Cold Mix   | 110259                | 2,619.80  |
| California Native Plant Society     | Garden Tour Prj 20171-31  | 110260                | 250.00    |
| Corie Campbell                      | Closed Account Refund   | 110261                | 128.72    |
| County of San Diego                 | Inspections Svcs Prj 20161-4                                    | 110262                | 1,061.00  |

VALLECITOS WATER DISTRICT  
WARRANTS LIST  
March 15, 2017

| PAYEE                                  | DESCRIPTION  | CHECK# | AMOUNT    |
|--|--|--------|-----------|
| CSMFO                                  | Membership 2017 J Fusco, W Owen  | 110263 | 220.00    |
| CWEA                                   | Membership E Garcia  | 110264 | 172.00    |
| Daniel Montano Contreras               | Closed Account Refund  | 110265 | 70.41     |
| David Schweigerah                      | Closed Account Refund  | 110266 | 113.53    |
| Day Electric                           | Inverter Repair Solar Panels   | 110267 | 1,600.00  |
| DirecTV Inc                            | Satellite Svc Feb  | 110268 | 156.98    |
| Dudek                                  | North & South Pressure Reducing Stations Prj 20141-7 & Prj 20141-8       | 110269 | 1,425.00  |
| EDCO Waste & Recycling Serv            | Trash Svc Feb  | 110270 | 847.35    |
| ESRI Inc                               | GIS Server Upgrade & Migration   | 110271 | 1,807.00  |
| Flag Mart                              | Flags 4  | 110272 | 303.81    |
| Ford of Escondido                      | Svc Veh 217, Hardware Supplies Veh 134, Cab Body Mounts Veh 212          | 110273 | 529.23    |
| George & Krogh Welding Inc             | Steel Pipe Welding, New Truck Setup Prj 20161-30                         | 110274 | 1,864.66  |
| GMC Electrical, Inc.                   | Steel Pipe Leak Repair   | 110275 | 2,999.48  |
| Haaker Equipment Co.                   | Hardware Supplies  | 110276 | 481.24    |
| Hawthorne Machinery Co.                | Skip Loader Rental, Back Hoe Rental Jan & Feb, Repairs Veh 166           | 110277 | 12,513.71 |
| Hawthorne Tire Auto Service            | Repairs & Alignment Veh 214  | 110278 | 1,349.65  |
| James R Hernandez                      | Urban Water Institute Conference 2-8-17                                  | 110279 | 256.61    |
| Infosend Inc                           | Postage & Printing, Support Fee Aug, Postage & Printing, Support Fee Feb | 110280 | 14,146.67 |
| Jenna Nicoll                           | Closed Account Refund  | 110281 | 27.37     |
| Jonathan Richard                       | Closed Account Refund  | 110282 | 63.20     |
| JCI Jones Chemicals Inc                | Chlorine   | 110283 | 3,888.70  |
| Kathryn & Aaron Burleson               | Closed Account Refund  | 110284 | 39.28     |
| Kellie Brosamer                        | Closed Account Refund  | 110285 | 10.59     |
| Kiwanis Club of Lake San Marcos        | Pancake Breakfast Placement Ad Prj 20171-27                              | 110286 | 100.00    |
| Laura Hord                             | Closed Account Refund  | 110287 | 20.12     |
| Lauren Alden                           | Closed Account Refund  | 110288 | 87.74     |
| Manpower Temp Services                 | Customer Service Rep Week Ending 2-12, 2-19, 2-26                        | 110289 | 1,708.79  |
| Hal Martin                             | CSDA Meeting 2-16-17   | 110290 | 30.03     |
| Mike Sannella                          | SDNEDC Meeting 2-09-17, CSDA Meeting 2-16-17, COWU Meeting 2-21-17       | 110291 | 53.91     |
| Milan Ficek                            | Closed Account Refund  | 110292 | 143.55    |
| Mitchell Repair Information Co LLC     | Repair Manuals Renewal 2017  | 110293 | 2,220.00  |
| North County Auto Parts                | Fleet Supplies Feb   | 110294 | 2,416.55  |
| Parkhouse Tire Inc                     | Tires 2 Vactor 183   | 110295 | 1,197.87  |
| Pencco, Inc.                           | Trioxyn & Sulfend RT   | 110296 | 16,400.37 |
| Rick Post Welding                      | Repair Leak - Steel Pipe, Coupling Welding                               | 110297 | 2,312.50  |
| Provident Savings Bank FSB             | Closed Account Refund  | 110298 | 10.14     |
| Rainbow Municipal Water District       | Refund of Duplicate Payment  | 110299 | 1,646.28  |
| Ramzi Hamdan                           | Closed Account Refund  | 110300 | 27.73     |
| RCP Block & Brick Inc                  | Stackable Block MRF  | 110301 | 983.49    |
| Air Quality Compliance Solutions, Inc. | Operator Svc Feb   | 110302 | 175.00    |
| Flat Wheel Auto Body Inc.              | Body Damage Repair Veh 244   | 110303 | 3,195.07  |
| S & J Supply Company, Inc.             | Brass Inventory  | 110304 | 549.95    |
| Sea Breeze Janitorial                  | Janitorial Svcs Feb  | 110305 | 553.13    |
| Sean Hogan                             | Closed Account Refund  | 110306 | 87.41     |
| Sherri Miller                          | Closed Account Refund  | 110307 | 75.05     |
| Shred-It US JV LLC                     | Shredding Svcs Jan - Feb   | 110308 | 229.49    |
| Southern Counties Lubricants, LLC      | Oil, Diesel Fuel   | 110309 | 1,355.19  |
| Southwest Valve & Equipment            | Check Valve Parts Pump 3 MRF   | 110310 | 3,040.58  |
| Spatial Wave Inc                       | Mapplet Annual Maintenance March 17 - March 18                           | 110311 | 4,860.00  |
| Standard Insurance Company             | LTD, LIFE, & ADD Mar   | 110312 | 5,622.98  |
| Stanley Steemer                        | Carpet Cleaning Bldg A & B   | 110313 | 2,328.00  |
| Staples Advantage                      | Office Supplies Feb  | 110314 | 132.20    |
| Sunbelt Rentals Inc                    | Man Lift Rental  | 110315 | 949.58    |
| Sunita Marcelllo                       | Closed Account Refund  | 110316 | 7.71      |
| Sylvester Roofing Co Inc               | Emergency Roof Repair Bldg A   | 110317 | 4,919.00  |
| Thomas S Strathairn                    | Advertising Prj 20171-27   | 110318 | 450.00    |
| Total Resource Mgt Inc                 | Maximo Support Jan   | 110319 | 163.00    |
| Trussell Technologies Inc              | Media Study MRF Prj 20121-4  | 110320 | 2,028.00  |
| Univar USA Inc                         | Sodium Bisulfite, Caustic Soda   | 110321 | 12,055.22 |
| UPS                                    | Shipping Feb   | 110322 | 118.37    |

VALLECITOS WATER DISTRICT  
WARRANTS LIST  
March 15, 2017

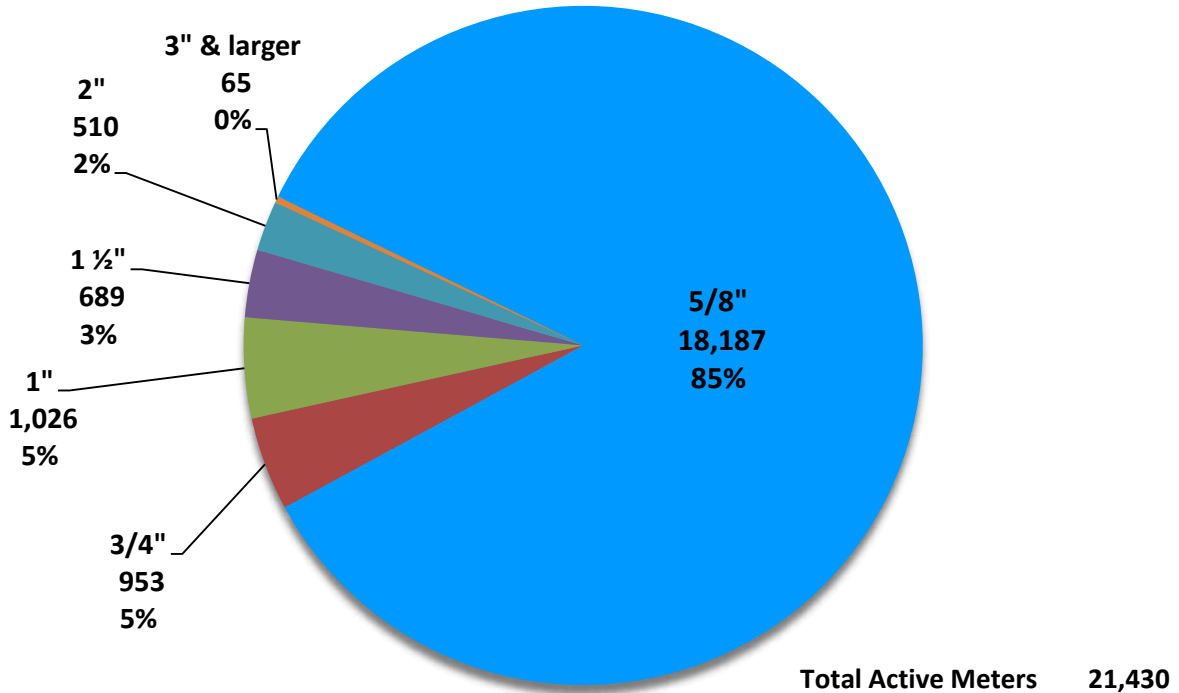
| PAYEE   | DESCRIPTION   | CHECK# | AMOUNT              |
|---|---|--------|---------------------|
| Varidesk, LLC   | Sit/Stand Stations 3  | 110323 | 942.82              |
| Vaughan's Indust Repair Inc.  | Pump 2 Refurbish Deer Springs Pump Station Prj 20171-8                              | 110324 | 8,637.40            |
| Victoria Lau  | Closed Account Refund   | 110325 | 72.38               |
| Xerox Corporation   | Copier Lease Jan  | 110326 | 4,835.96            |
| Airgas USA LLC  | Cylinder Rental   | 110327 | 85.46               |
| Carbon Activated Corp.  | Tertiary Media MRF Prj 20121-4  | 110328 | 42,504.43           |
| CCI   | Water Treatment Feb   | 110329 | 220.00              |
| Griswold Industries   | Claval Flow Curves 76 SCADA   | 110330 | 2,385.65            |
| Cook Industrial Supply  | Pressure Washer Repair  | 110331 | 618.62              |
| County Burner & Machinery Corp  | Hardware Supplies   | 110332 | 212.08              |
| Electrical Sales Inc  | Hardware Supplies   | 110333 | 96.11               |
| Ferguson Enterprises, Inc   | Copper Tubing, Gaskets  | 110334 | 611.49              |
| Fleetpride  | Hardware Supplies   | 110335 | 280.49              |
| Grainger Inc  | Sump Pumps 2, Chlorine Injector Materials, Aeration Blower Parts, Hardware Supplies | 110336 | 5,805.80            |
| Grangetto's Farm Garden Supply  | Landscape Supplies  | 110337 | 298.90              |
| Harrington Industrial   | Hardware Supplies   | 110338 | 220.09              |
| Land Surveying Consultants Inc  | Moon Nursery Easement Survey  | 110339 | 2,510.00            |
| Machilus LLC  | Closed Account Refund   | 110340 | 150.00              |
| Marcon Products Inc   | Hardware Supplies Prj 20171-263   | 110341 | 348.98              |
| MCR Technologies Inc  | Composite Sampler MRF   | 110342 | 6,484.40            |
| Mission Janitorial & Abrasive Supplies                                    | Cleaning Supplies   | 110343 | 97.17               |
| Mission Resource Conservation District                                    | Water Use Evaluations Prj 20171-30  | 110344 | 31.25               |
| Morton Salt, Inc.   | Industrial Salt   | 110345 | 3,423.73            |
| O.G. Supply Inc   | Hardware Supplies   | 110346 | 153.44              |
| Official Athletics  | Advertising Prj 20171-27  | 110347 | 100.00              |
| One Source Distributors LLC   | Full Face Respirators 6 MRF   | 110348 | 665.75              |
| Pacific Pipeline Supply   | Couplings 10, Air Vac Cans 3, Pipe Stand Prj 20171-6, Hardware Supplies             | 110349 | 5,306.89            |
| Reed Electric Co  | Motor 2 Refurbish Deer Springs Pump Station Prj 20171-8                             | 110350 | 5,149.59            |
| Ryan Herco Products Corp.   | Chlorine Injectors 2  | 110351 | 4,593.98            |
| Steven Enterprises Inc  | Bond Paper  | 110352 | 90.16               |
| T.S. Industrial Supply  | Hardware Supplies   | 110353 | 108.47              |
| Tiffany Vague   | Closed Account Refund   | 110354 | 42.44               |
| Unifirst Corporation  | Uniform Delivery  | 110355 | 1,602.29            |
| VAP Enterprises Inc   | Right of Way Acquisition Harmony Grove Prj 20161-26 & Prj 90003                     | 110356 | 2,444.99            |
| Walters Wholesale Electric  | Hardware Supplies   | 110357 | 742.56              |
| Total Disbursements (212 Checks)  |   |        | <u>930,255.73</u>   |
| <b>WIRES</b>  |   |        |                     |
| San Diego County Water Authority  | January Water Bill  | Wire   | 1,641,037.32        |
| Public Employees Retirement System  | Retirement Contribution - February 15, 2017 Payroll                                 | Wire   | 67,184.07           |
| Public Employees Retirement System  | Retirement Contribution - March 1, 2017 Payroll                                     | Wire   | 67,252.62           |
| Total Wires   |   |        | <u>1,775,474.01</u> |
| <b>PAYROLL</b>  |   |        |                     |
| Total direct deposits   |   | Wire   | 229,546.39          |
| VWD Employee Association  |   | 110146 | 385.00              |
| Garnishments  |   | 110149 | 1,715.06            |
| IRS   | Federal payroll tax deposit   | Wire   | 99,528.95           |
| Employment Development Department   | California payroll tax deposit  | Wire   | 17,728.82           |
| CalPERS   | Deferred compensation withheld  | Wire   | 19,726.84           |
| VOYA  | Deferred compensation withheld  | Wire   | 7,244.52            |
| Total February 15, 2017 Payroll Disbursements                             |   |        | <u>375,875.58</u>   |
| Total direct deposits   |   | Wire   | 1,002.01            |
| IRS   | Federal payroll tax deposits  | Wire   | 695.76              |
| Employment Development Department   | California payroll tax deposit  | Wire   | 127.54              |
| CalPERS   | Deferred compensation withheld  | Wire   | 100.00              |
| Special Payroll Disbursements (i.e., final checks, accrual payouts, etc.) |   |        | <u>1,925.31</u>     |

VALLECITOS WATER DISTRICT  
WARRANTS LIST  
March 15, 2017

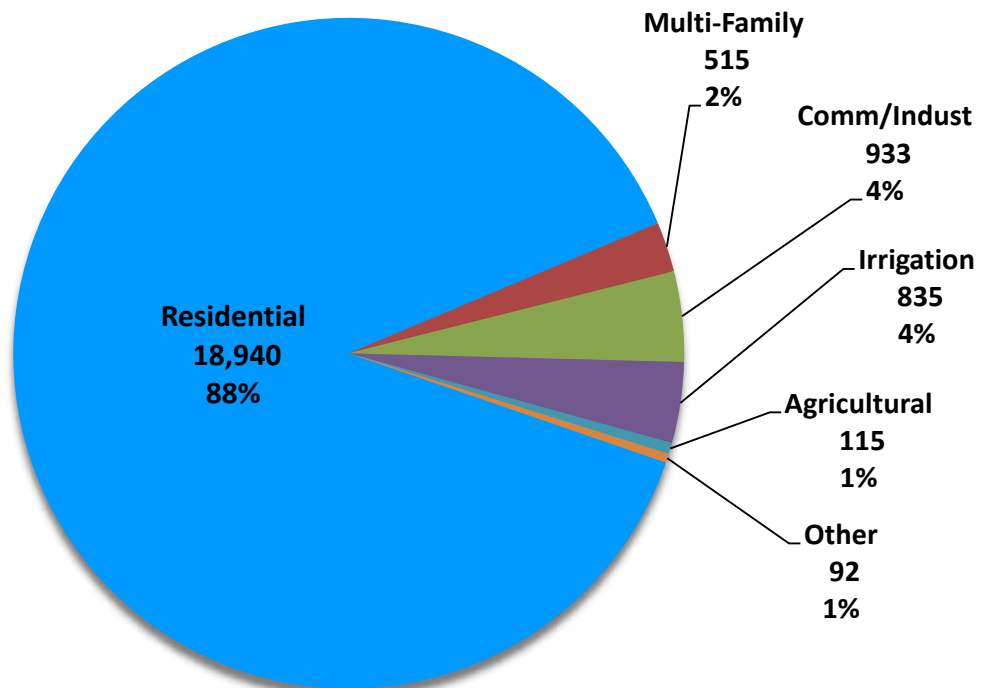
| PAYEE                                     | DESCRIPTION                    | CHECK#         | AMOUNT                     |
|---|--------------------------------|----------------|----------------------------|
| Total direct deposits                     |                                | Wire           | 227,776.55                 |
| VWD Employee Association                  |                                | 110248         | 385.00                     |
| Garnishments                              |                                | 110249 through | 1,715.06                   |
| IRS                                       | Federal payroll tax deposits   | Wire           | 100,778.61                 |
| Employment Development Department         | California payroll tax deposit | Wire           | 17,838.13                  |
| CalPERS                                   | Deferred compensation withheld | Wire           | 19,232.79                  |
| AETNA                                     | Deferred compensation withheld | Wire           | 7,429.89                   |
| Total March 1, 2017 Payroll Disbursements |                                |                | <u>375,156.03</u>          |
| Total Payroll Disbursements               |                                |                | <u>752,956.92</u>          |
| TOTAL DISBURSEMENTS                       |                                |                | <u><u>3,458,686.66</u></u> |

Vallecitos Water District  
 Active Water Meters  
 February 28, 2017

**Active Meters by Size as of February 28, 2017**



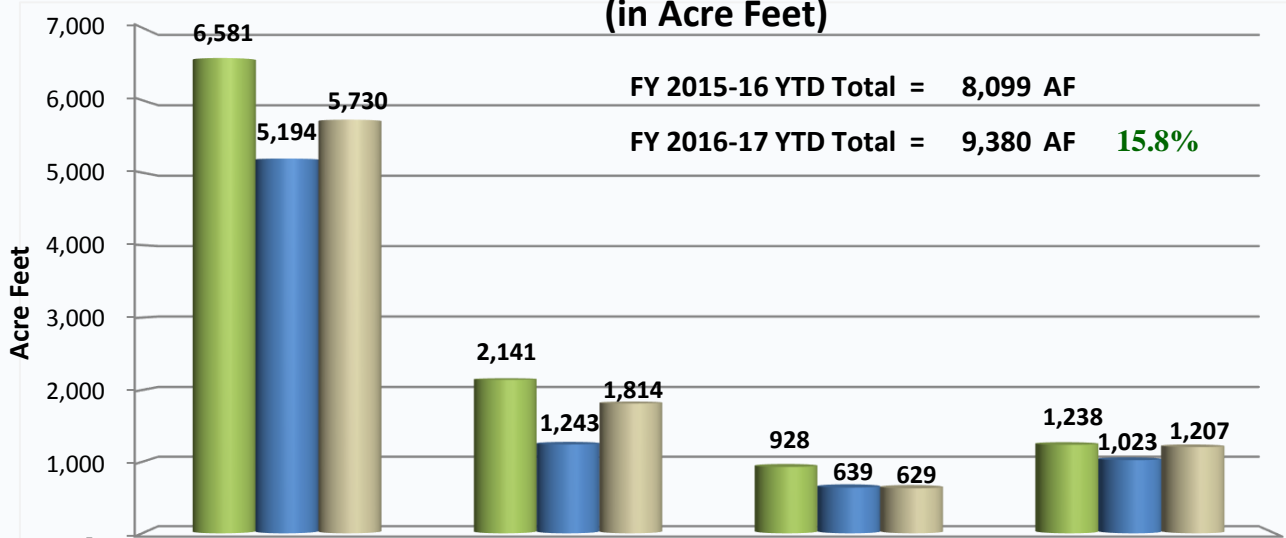
**Active Meters by Type as of February 28, 2017**





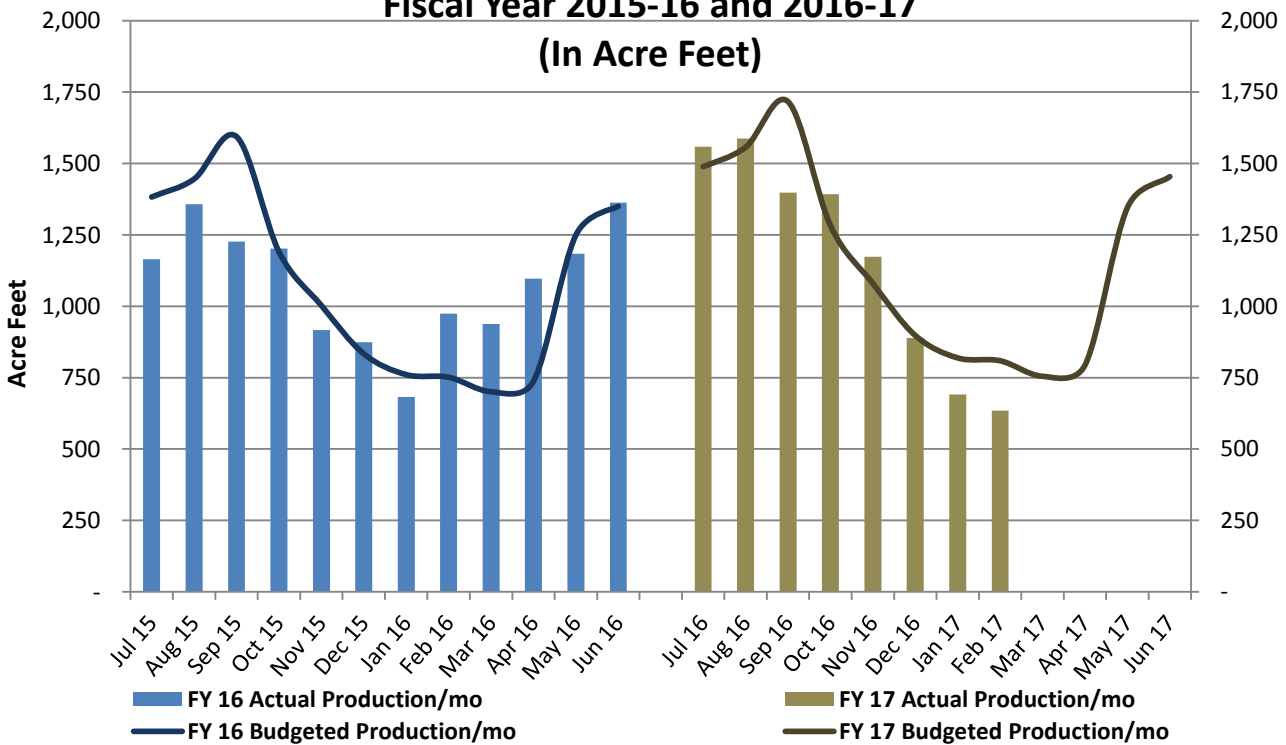
Vallecitos Water District  
 Water Production/Sales  
 February 28, 2017

**Water Sales FY 13-14, FY 15-16 and FY 16-17 (FYTD)**  
**(in Acre Feet)**



|            | Residential | Irrigation | Agricultural | Commer/ Indust/<br>Construct/ Other |
|------------|-------------|------------|--------------|-------------------------------------|
| FY 2014-15 | 6,581       | 2,141      | 928          | 1,238                               |
| FY 2015-16 | 5,194       | 1,243      | 639          | 1,023                               |
| FY 2016-17 | 5,730       | 1,814      | 629          | 1,207                               |

**Water Production Budget vs. Actual**  
**Fiscal Year 2015-16 and 2016-17**  
**(In Acre Feet)**



Vallecitos Water District  
Water Revenue and Expense Report  
For the Eight Months Ended February 28, 2017

|                             | Current             | Prior Year Actual   |                    |               | Current Year Budget |                    |                |
|-----------------------------|---------------------|---------------------|--------------------|---------------|---------------------|--------------------|----------------|
|                             | Year                | Amount              | Variance           |               | Amount              | Variance           |                |
|                             | Actual              |                     | \$                 | %             |                     | \$                 | %              |
| <b>Revenue</b>              |                     |                     |                    |               |                     |                    |                |
| Water Sales                 | \$ 15,446,358       | \$ 12,419,014       | \$ 3,027,344       | 24.4%         | \$ 16,357,000       | \$ (910,642)       | -5.6%          |
| Ready-to-serve              | 9,193,980           | 9,132,929           | 61,051             | 0.7%          | 8,164,000           | 1,029,980          | 12.6%          |
| Pumping charges             | 115,868             | 91,619              | 24,249             | 26.5%         | 163,000             | (47,132)           | -28.9%         |
| Late & lock charges         | 297,469             | 303,452             | (5,983)            | -2.0%         | 271,000             | 26,469             | 9.8%           |
| Backflow fees               | 58,705              | 54,826              | 3,879              | 7.1%          | 52,000              | 6,705              | 12.9%          |
| Other revenue               | 141,828             | 131,554             | 10,274             | 7.8%          | 65,400              | 76,428             | 116.9%         |
| <b>Total Revenue</b>        | <b>25,254,208</b>   | <b>22,133,394</b>   | <b>3,120,814</b>   | <b>14.1%</b>  | <b>25,072,400</b>   | <b>181,808</b>     | <b>0.7%</b>    |
| <b>Expenses</b>             |                     |                     |                    |               |                     |                    |                |
| Water costs                 | 17,483,827          | 13,509,785          | 3,974,042          | 29.4%         | 18,610,000          | (1,126,173)        | -6.1%          |
| Pumping costs               | 367,320             | 308,899             | 58,421             | 18.9%         | 292,000             | 75,320             | 25.8%          |
| Water quality               | 62,120              | 73,969              | (11,849)           | -16.0%        | 111,000             | (48,880)           | -44.0%         |
| Water treatment             | 264,825             | 230,452             | 34,373             | 14.9%         | 249,000             | 15,825             | 6.4%           |
| Tanks & reservoirs          | 187,104             | 206,237             | (19,133)           | -9.3%         | 229,000             | (41,896)           | -18.3%         |
| Trans & distribution        | 1,122,841           | 715,816             | 407,025            | 56.9%         | 940,000             | 182,841            | 19.5%          |
| Services                    | 89,622              | 148,191             | (58,569)           | -39.5%        | 125,000             | (35,378)           | -28.3%         |
| Meters                      | 406,274             | 417,908             | (11,634)           | -2.8%         | 433,000             | (26,726)           | -6.2%          |
| Backflow prevention         | 51,711              | 36,254              | 15,457             | 42.6%         | 48,000              | 3,711              | 7.7%           |
| Customer accounts           | 350,080             | 338,010             | 12,070             | 3.6%          | 456,000             | (105,920)          | -23.2%         |
| Building & grounds          | 253,630             | 217,643             | 35,987             | 16.5%         | 213,000             | 40,630             | 19.1%          |
| Equipment & vehicles        | 170,792             | 160,939             | 9,853              | 6.1%          | 211,000             | (40,208)           | -19.1%         |
| Engineering                 | 852,131             | 834,928             | 17,203             | 2.1%          | 1,028,000           | (175,869)          | -17.1%         |
| Safety & compliance         | 139,314             | 134,998             | 4,316              | 3.2%          | 181,000             | (41,686)           | -23.0%         |
| Information Technology      | 506,705             | 464,349             | 42,356             | 9.1%          | 625,000             | (118,295)          | -18.9%         |
| General & administrative    | 1,807,241           | 1,894,363           | (87,122)           | -4.6%         | 1,849,000           | (41,759)           | -2.3%          |
| <b>Total Expenses</b>       | <b>24,115,537</b>   | <b>19,692,741</b>   | <b>4,422,796</b>   | <b>22.5%</b>  | <b>25,600,000</b>   | <b>(1,484,463)</b> | <b>-5.8%</b>   |
| <b>Net Operating Income</b> | <b>\$ 1,138,671</b> | <b>\$ 2,440,653</b> | <b>(1,301,982)</b> | <b>-53.3%</b> | <b>\$ (527,600)</b> | <b>1,666,271</b>   | <b>-315.8%</b> |

**Explanation of Significant Variances**

Drought recovery has resulted in a favorable variance in **Water Sales** to prior year. **Water costs** have increased in correlation with water sales resulting in an unfavorable variance to prior year.

The District received a settlement from ACWA/JPIA and reimbursement of costs for Solar Panel repairs resulting in a favorable budget variance in **Other revenue**.

The **Pumping costs** unfavorable budget variance is a result of increased power costs due to rate increases and the addition of the San Elijo Hills pump station.

**Transmission and distribution** has an unfavorable prior year variance as a result of unplanned repair costs due to multiple main breaks and paving services budgeted for Fiscal Year 2016 being delayed and performed this fiscal year.

The **Customer Accounts** favorable budget variance is due to staffing within the department.

**On the Horizon:**

- Multiple main breaks resulted in the District incurring unplanned repair costs including materials and supplies, paving, and related payroll overtime expenses. Future financial statements will reflect these costs in the transmission and distribution department.

*Variances are considered significant if they exceed \$66666 and 20%.*

Vallecitos Water District  
Sewer Revenue and Expense Report  
For the Eight Months Ended February 28, 2017

|                          | Current<br>Year<br>Actual | Prior Year Actual   |           |       | Current Year Budget |              |        |
|--------------------------|---------------------------|---------------------|-----------|-------|---------------------|--------------|--------|
|                          |                           | Amount              | Variance  |       | Amount              | Variance     |        |
|                          |                           |                     | \$        | %     |                     | \$           | %      |
| <b>Revenue</b>           |                           |                     |           |       |                     |              |        |
| Sewer service charges    | \$ 11,659,294             | \$ 11,559,894       | \$ 99,400 | 0.9%  | \$ 11,864,000       | \$ (204,706) | -1.7%  |
| Reclaimed water sales    | 1,290,389                 | 1,147,045           | 143,344   | 12.5% | 1,292,000           | (1,611)      | -0.1%  |
| Other revenue            | 62,861                    | 64,643              | (1,782)   | -2.8% | 52,000              | 10,861       | 20.9%  |
| Total Revenue            | <u>13,012,567</u>         | <u>12,771,582</u>   | 240,985   | 1.9%  | <u>13,208,000</u>   | (195,433)    | -1.5%  |
| <b>Expenses</b>          |                           |                     |           |       |                     |              |        |
| Collection & conveyance  | 1,216,378                 | 1,150,054           | 66,324    | 5.8%  | 1,508,000           | (291,622)    | -19.3% |
| Lift stations            | 257,487                   | 147,606             | 109,881   | 74.4% | 216,000             | 41,487       | 19.2%  |
| Source Control           | 91,110                    | 82,444              | 8,666     | 10.5% | 128,000             | (36,890)     | -28.8% |
| Effluent disposal        | 1,808,087                 | 1,551,040           | 257,047   | 16.6% | 1,794,000           | 14,087       | 0.8%   |
| Meadowlark               | 1,907,916                 | 1,693,928           | 213,988   | 12.6% | 2,323,000           | (415,084)    | -17.9% |
| Customer Accounts        | 242,998                   | 231,325             | 11,673    | 5.0%  | 307,000             | (64,002)     | -20.8% |
| Building & grounds       | 141,276                   | 120,120             | 21,156    | 17.6% | 154,000             | (12,724)     | -8.3%  |
| Equipment & vehicles     | 118,755                   | 125,487             | (6,732)   | -5.4% | 174,000             | (55,245)     | -31.8% |
| Engineering              | 361,438                   | 362,568             | (1,130)   | -0.3% | 437,000             | (75,562)     | -17.3% |
| Safety & compliance      | 95,409                    | 81,903              | 13,506    | 16.5% | 110,000             | (14,591)     | -13.3% |
| Information technology   | 425,349                   | 400,533             | 24,816    | 6.2%  | 490,000             | (64,651)     | -13.2% |
| General & administrative | 817,698                   | 764,423             | 53,275    | 7.0%  | 839,000             | (21,302)     | -2.5%  |
| Total Expenses           | <u>7,483,901</u>          | <u>6,711,431</u>    | 772,470   | 11.5% | <u>8,480,000</u>    | (996,099)    | -11.7% |
| Net Operating Income     | <u>\$ 5,528,666</u>       | <u>\$ 6,060,151</u> | (531,485) | -8.8% | <u>\$ 4,728,000</u> | 800,666      | 16.9%  |

Explanation of Significant Variances

*Lift stations* has an unfavorable variance to prior year resulting from an anticipated increase in outside services and materials used during the year thus far.

*Variances are considered significant if they exceed \$66666 and 20%.*

**VALLECITOS WATER DISTRICT**

**RESERVE ACTIVITY FOR THE EIGHT MONTHS ENDED FEBRUARY 28, 2017**

|  | 110 Water        | 120              | 210 Wastewater   | 220              | Total             |
|--|------------------|------------------|------------------|------------------|-------------------|
|  | Replacement      | Capacity         | Replacement      | Capacity         |                   |
| BEGINNING BALANCE                                    | \$ 28,693,077    | \$ (10,315,457)  | \$ 38,840,390    | \$ (6,245,765)   | \$ 50,972,157     |
| REVENUES   |                  |                  |                  |                  |                   |
| FY 16/17 Operating Transfers                         | 1,138,671        |                  | 5,528,666        |                  | 6,667,337         |
| Capital Facility Fees                                | -                | 1,934,876        | -                | 2,344,597        | 4,279,474         |
| Property Tax   | 698,904          | -                | 555,282          | -                | 1,254,186         |
| RDA pass-through                                     | 379,589          | -                | 379,589          | -                | 759,178           |
| Investment Earnings                                  | 132,415          | -                | 132,517          | -                | 264,932           |
| Payment on Land Sale to City                         | 56,968           | -                | 56,968           | -                | 113,935           |
| Annexation Fees                                      | 34,190           | -                | 5,780            | -                | 39,969            |
| <b>TOTAL REVENUES</b>                                | <b>2,440,737</b> | <b>1,934,876</b> | <b>6,658,802</b> | <b>2,344,597</b> | <b>13,379,012</b> |
| LESS DISTRIBUTIONS                                   |                  |                  |                  |                  |                   |
| Capital Projects                                     |                  |                  |                  |                  |                   |
| Encina Wastewater Auth 5 Year Cap Plan               | -                | -                | 1,269,330        | -                | 1,269,330         |
| San Elijo Road Facility                              | -                | 177,437          | -                | 118,291          | 295,728           |
| San Marcos interceptor sewer                         | -                | -                | 81,080           | 180,464          | 261,544           |
| Water & Sewer Master Plan                            | -                | 115,164          | -                | 115,157          | 230,321           |
| Fy 15/16 District Wide Valve Replacement             | 148,477          | -                | -                | -                | 148,477           |
| Chlorine Contact Tank Expansion                      | -                | -                | 125,981          | -                | 125,981           |
| MRF Chlorine Contact Tank Safety Railing Replacement | -                | -                | 110,588          | -                | 110,588           |
| Tertiary Filter Media                                | -                | -                | 109,190          | -                | 109,190           |
| Linda Vista Sewer Upgrade                            | -                | -                | 42,474           | 51,913           | 94,387            |
| Expansion of the Men's Locker Room in Building B     | 47,801           | -                | 45,927           | -                | 93,728            |
| Mrf - Aeration System Blower Replacement             | -                | -                | 89,567           | -                | 89,567            |
| Audiovisual Upgrade                                  | 40,835           | -                | 39,234           | -                | 80,069            |
| Vactron Pit - District Yard                          | -                | -                | 73,907           | -                | 73,907            |
| Lift Station No 1 Pump Improvements                  | -                | -                | 15,238           | 48,252           | 63,490            |
| Mahr Reservoir Chlorine Injection System             | -                | -                | 56,903           | -                | 56,903            |
| Rock Springs Sewer Replacement                       | -                | -                | 24,520           | 29,970           | 54,490            |
| Knoll Road Sewer Replacement                         | -                | -                | 51,540           | -                | 51,540            |
| Montiel Gravity Outfall                              | -                | -                | 20,866           | 25,503           | 46,369            |
| Meter Services Area Remodel                          | 19,733           | -                | 18,960           | -                | 38,693            |
| Lift Station 1 Wet Well Room Repairs                 | -                | -                | 31,904           | -                | 31,904            |
| Aerosol System For Servers                           | 15,499           | -                | 14,891           | -                | 30,390            |
| Palos Vista Pump Station Motor Replacement           | 25,915           | -                | -                | -                | 25,915            |
| Twin Oaks Resv: On-Site Sodium Hypo Generation       | 24,184           | -                | -                | -                | 24,184            |
| MRF Potable Water Pump Station                       | -                | -                | 23,749           | -                | 23,749            |
| Deer Springs Pump Station - Refurb Pumps & Motors    | 22,895           | -                | -                | -                | 22,895            |
| Palos Vista Pump Station Flow Meter Replacement      | 18,428           | -                | -                | -                | 18,428            |
| Master Plc Replacement & Programming Updates         | 8,739            | -                | 8,737            | -                | 17,476            |
| City of San Marcos Joint Projects                    | 9,111            | -                | 5,825            | -                | 14,936            |
| Constant Speed Aeration Blower                       | -                | -                | 14,142           | -                | 14,142            |
| South Lake dam sluice gate                           | 13,529           | -                | -                | -                | 13,529            |
| Desalinated Water Connection                         | -                | 12,689           | -                | -                | 12,689            |
| Palos Vista Pump Station                             | 12,362           | -                | -                | -                | 12,362            |
| Peroxide Station Enclosure And Site Renovation       | -                | -                | 11,729           | -                | 11,729            |
| Lift Station 1 - Waterman Valves Replacement         | -                | -                | 10,740           | -                | 10,740            |
| All other capital projects                           | 23,065           | 155              | 29,449           | 1,044            | 53,713            |
| Capital Budget - Vehicles/Mobile Equipmnt            | 128,539          | -                | 154,939          | -                | 283,478           |
| Debt Service   | -                | 598,399          | -                | 1,547,431        | 2,145,830         |
| Interest Expense                                     | -                | 38,637           | -                | 24,178           | 62,815            |
| <b>TOTAL DISTRIBUTIONS</b>                           | <b>559,113</b>   | <b>942,481</b>   | <b>2,481,409</b> | <b>2,142,203</b> | <b>6,125,206</b>  |
| ENDING BALANCE                                       | \$ 30,574,701    | \$ (9,323,062)   | \$ 43,017,783    | \$ (6,043,371)   | \$ 58,225,963     |
| Less: Operating Reserves                             | 5,220,500        | -                | 6,272,900        | -                | 11,493,400        |
| Replacement Reserves/Restricted Funds                | \$ 25,354,201    | \$ (9,323,062)   | \$ 36,744,883    | \$ (6,043,371)   | \$ 46,732,563     |
| Replacement reserve floor                            | \$ 6,542,500     |                  | \$ 11,789,400    |                  |                   |
| Replacement reserve ceiling                          | \$ 26,916,300    |                  | \$ 41,946,600    |                  |                   |

**VALLECITOS WATER DISTRICT  
INVESTMENT REPORT FOR FEBRUARY 2017**

Attached is a detailed list of investments for all District funds that are not needed to meet current obligations. In accordance with Government Code Section 53646, the information is presented to the Board on a monthly basis and includes a breakdown by fund, financial institution, settlement and maturity date, yield, and investment amount. In addition, the report indicates the various percentages of investments in each type of institution.

When investments are being made, two or three institutions are contacted to obtain prevailing rates. Consideration is given to Safety, Liquidity, and Yield, in that order. Necessary approvals and reviews are obtained. This process and the presentation of the information to the Board are in compliance with requirements outlined in the District Investment Policy adopted on an annual basis. In addition to the investment portfolio, there are sufficient funds in the Operating Account to meet District obligations for the next 30 days. Maturity dates on investments are structured to meet the future financial obligations of the District (i.e., bond payments and construction projections). In that regard, the District will be able to meet expenditure requirements for the next six months without a need to liquidate an investment earlier than scheduled maturity dates.

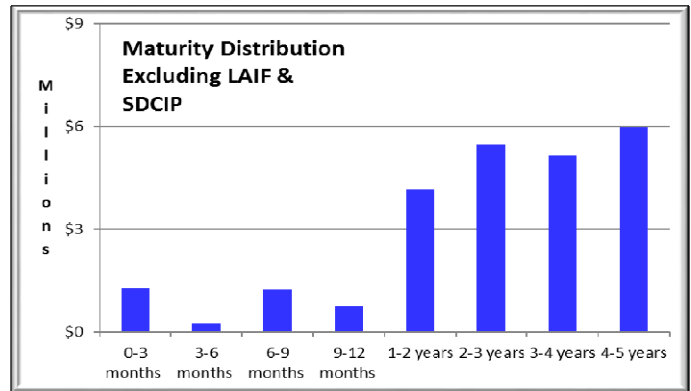
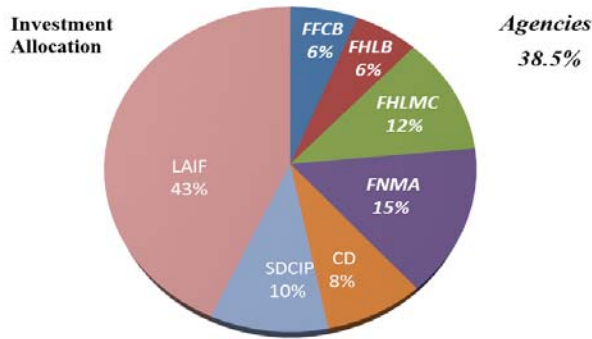
Investment activity for the month of February follows:

| <u>Date</u>                            | <u>Activity</u> | <u>Investment</u> | <u>Amount</u>       | <u>Maturity</u> | <u>Yield</u> |
|--|-----------------|-------------------|---------------------|-----------------|--------------|
| 02/03/17                               | Deposit         | LAIF              | 725,000             | Open            | 0.78%        |
| 02/08/17                               | Settle          | FHLB              | 500,000             | 01/23/19        | 1.24%        |
| 02/09/17                               | Maturity        | Credit SUIS CP    | (991,503)           | 02/09/17        | 1.15%        |
| 02/09/17                               | Deposit         | LAIF              | 950,000             | Open            | 0.78%        |
| 02/15/17                               | Withdrawal      | LAIF              | (2,000,000)         | Open            | 0.78%        |
| 02/24/17                               | Deposit         | LAIF              | 425,000             | Open            | 0.78%        |
| 02/27/17                               | Call            | FNMA              | (499,000)           | 08/27/17        | 1.60%        |
| 02/28/17                               | Deposit         | LAIF              | 450,000             | Open            | 0.78%        |
| Change in investments during the month |                 |                   | <u>\$ (440,503)</u> |                 |              |

|  | <u>Current</u> |
|--|----------------|
| Weighted average annual yield for total Vallecitos investments | 1.049%         |
| Weighted average days to maturity                              | 472            |

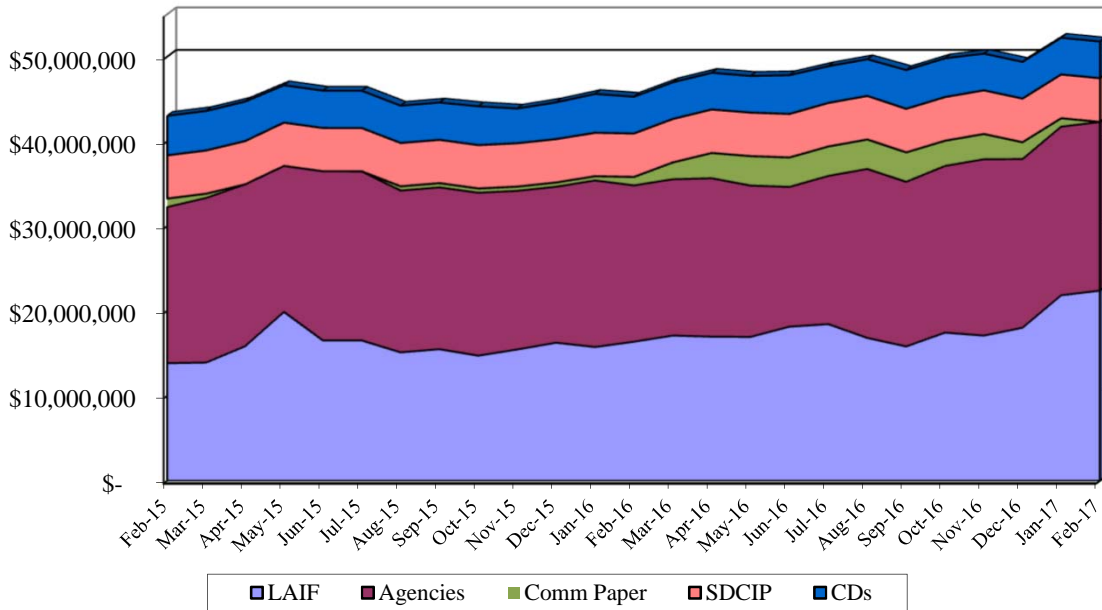
The State Treasurer's Office provides fair market values of LAIF quarterly on their web site. The most recent valuation, which is used on this report, is as of December 31, 2016. The San Diego County Treasurer provides the fair values for the County investment pool. The most recent values and returns, which are used for this report, are for January 31, 2017. Fair values for federal agency obligations and corporate notes are provided by Union Bank trust account reporting.

**Portfolio Snapshot:**



Safety

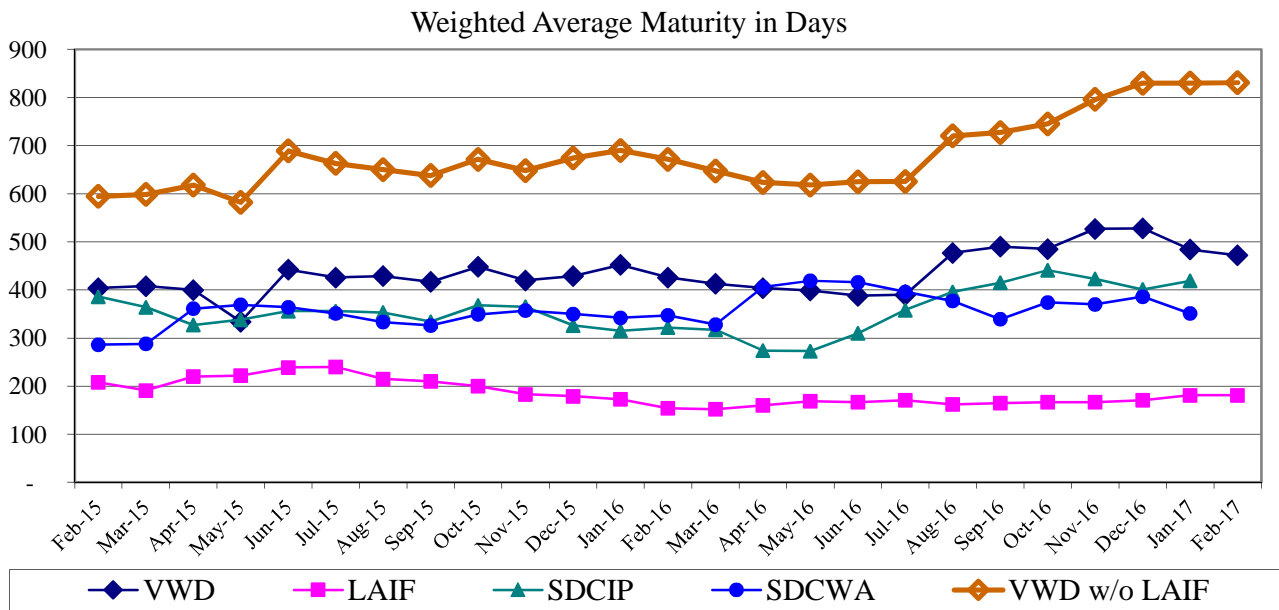
Criteria for selecting investments and the absolute order of priority are safety, liquidity and yield. To meet the objective of safety and avert credit risk, the District acquires only those investments permitted by adopted Board policy and with in limits established in the policy. Credit risk is the risk that an issuer or other counter party to an investment will not fulfill its obligation. The District also limits risk by investing in a range of instruments to insure diversification as indicated in the graph below.



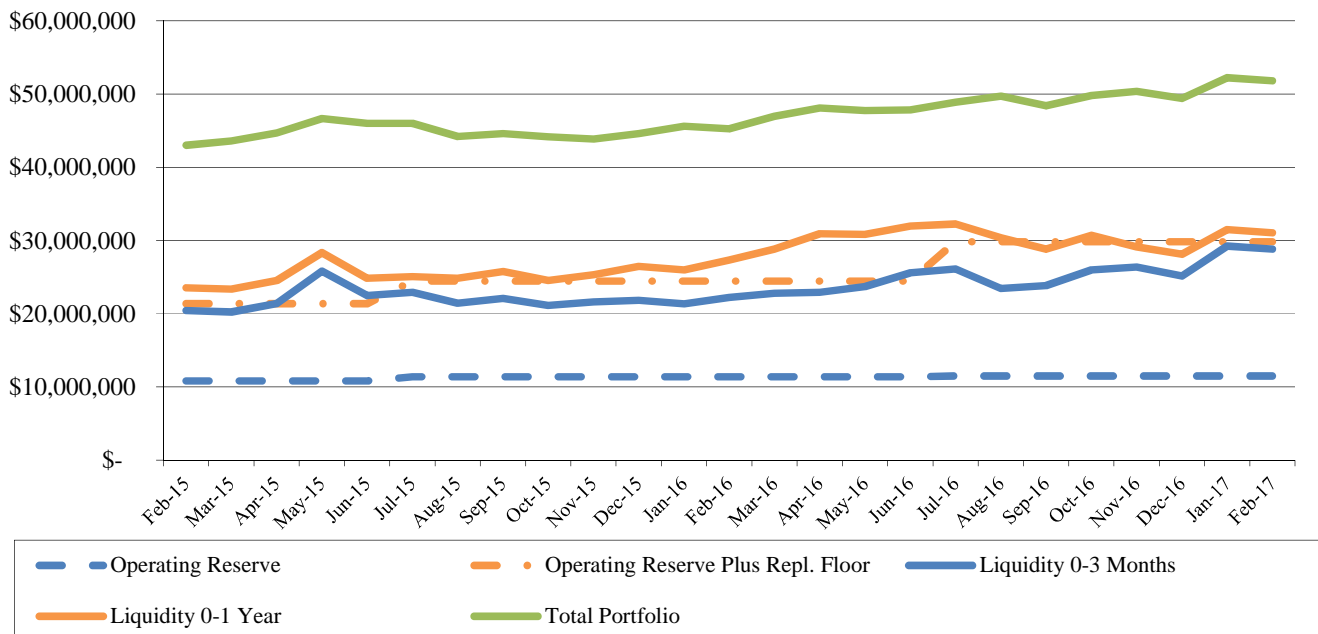
The graph above represents investment levels in the State of California’s Local Agency Investment Fund (LAIF), federal agency obligations, commercial paper, FDIC backed corporate notes, the San Diego County Investment Pool (SDCIP), and certificates of deposit.

Liquidity

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of investments. The District averts interest rate risk by limiting terms of investments in accordance with the Investment Policy. Maturity in days is a measure of liquidity. The next graph compares the District's liquidity to other managed portfolios. The District's liquidity is graphed with and without LAIF. With LAIF the District is in fact very liquid with \$22.4 million available the same day. But for comparative purposes LAIF is eliminated from the District's portfolio and shown separately.

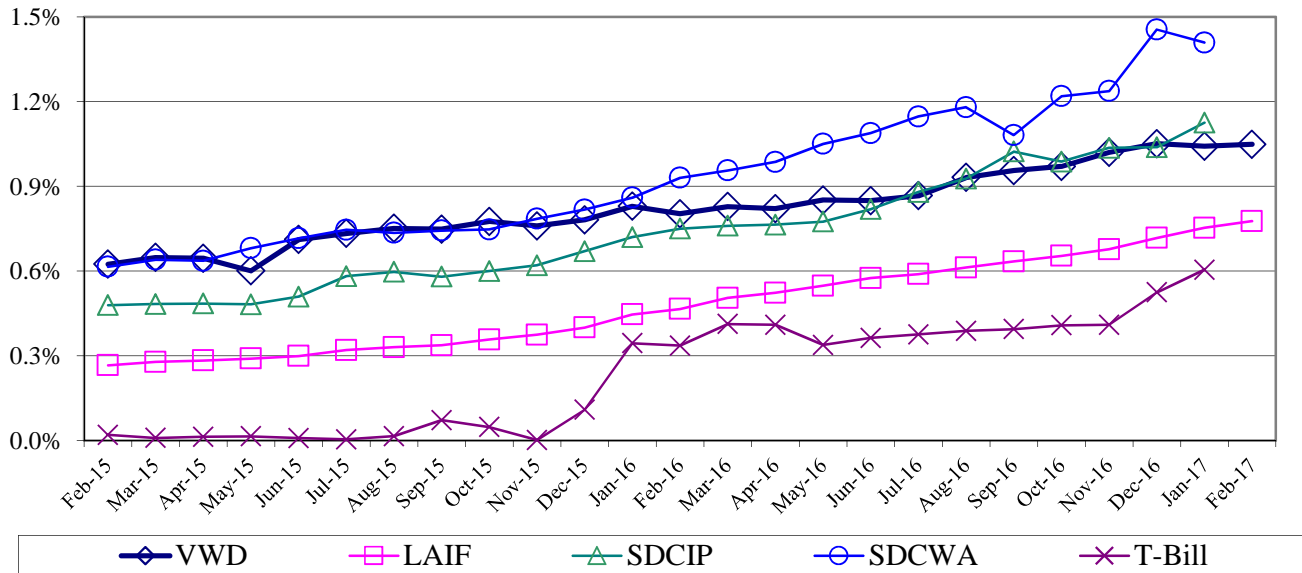


The graph below trends the *relationship of liquidity to adopted reserve levels*. District staff is sensitive to this relationship, but also recognizes the risk of being too liquid if rates fall further.



Yield

The next graph compares the District’s effective yield to LAIF, SDCIP, San Diego County Water Authority (SDCWA), and the average 91-day Treasury bill for each month.



Investment/Debt Management

On July 9, 2015, the District refunded most of its 2007 Certificates of Participation with Revenue Bonds containing interest rates ranging between 4% and 5%. The District is obligated to transfer semi-annual debt service payments each June 25<sup>th</sup> (maximum of \$3.9 million in year 2030) and each December 26<sup>th</sup> (maximum of \$980 thousand in year 2021) to the trustee for payment to bondholders for both the remaining 2007 COPs and 2015 Revenue Bonds. Staff targets these dates for maturities and proposes user rates that, given all other budget assumptions, satisfy debt service coverage requirements. On November 12, 2008, the District secured a private placement, variable rate loan (currently at 1.43584%) from Union Bank for \$8 million to fund remaining and prior construction costs of the Encina Wastewater Authority Phase V expansion. The District is debt financing certain sewer projects with a \$7.1 million 10-year loan received from Bank of America in December of 2012, at a 1.98% fixed rate.

Investment Strategy

Staff is sensitive to the need to maintain minimum liquidity and invests to insure that a portion of the portfolio equal to the operating reserves matures within three months, and a portion of the portfolio equal to the operating reserves plus the replacement reserve floors matures within one year. Staff also recognizes that too much liquidity presents interest rate risk and, therefore, maintains investment maturities close to the liquidity targets. When total investment maturities are projected to remain above liquidity targets, investment are made further out on the curve to ladder maturities, maintain diversity among investment types and issuers, and maximize yield.

The District continues to diversify various aspects of the portfolio and avoid speculating since the portfolio is passively managed (no staff dedicated solely to investing and monitoring credits). Staff diversifies the portfolio by investment type, maturity and settlement dates (time averaging), and call provisions. The District continues to maintain investments of varying types within limits allowed by investment policy (60% in federal agency obligations, 60% in LAIF, 40% in other local government investment pools, 20% in FDIC-backed corporate notes, 20% in commercial paper, 20% in certificates of deposit).



| By Fund   |                        |        |       |         |          |          | Replacement   |               | Capacity   |           | Total |               |
|-----------|------------------------|--------|-------|---------|----------|----------|---------------|---------------|------------|-----------|-------|---------------|
| Reference | S&P                    | Coupon | Yield | Settled | Callable | Matures  | Water 110     | Sewer 210     | Water 120  | Sewer 220 |       |               |
|           | FNMA                   | AA+    | 1.125 | 0.705   | 01/09/13 | na       | 04/27/17      | -             | 1,017,750  | -         | -     | 1,017,750     |
|           | SAFRA CD               |        | 0.900 | 0.900   | 01/28/16 | na       | 04/28/17      | 245,000       | -          | -         | -     | 245,000       |
|           | Cardnl Bk CD           |        | 1.000 | 1.000   | 01/30/15 | na       | 07/31/17      | -             | 245,000    | -         | -     | 245,000       |
|           | Mbank CD               |        | 1.500 | 1.500   | 09/20/13 | na       | 09/20/17      | 245,000       | -          | -         | -     | 245,000       |
|           | FNMA                   | AA+    | 0.875 | 0.917   | 02/24/15 | na       | 10/26/17      | -             | 499,465    | -         | -     | 499,465       |
|           | FNMA                   | AA+    | 0.875 | 0.917   | 12/02/15 | na       | 10/26/17      | -             | 499,625    | -         | -     | 499,625       |
|           | Compass CD             |        | 1.300 | 1.300   | 12/09/15 | na       | 12/11/17      | -             | 245,000    | -         | -     | 245,000       |
|           | FFCB                   | AA+    | 0.840 | 0.840   | 10/22/15 | 03/28/17 | 01/22/18      | -             | 500,000    | -         | -     | 500,000       |
|           | FFCB                   | AA+    | 0.930 | 0.930   | 10/21/15 | 04/13/17 | 04/13/18      | 499,705       | -          | -         | -     | 499,705       |
|           | Am Exp CD              |        | 1.100 | 1.100   | 04/29/15 | na       | 04/30/18      | 245,000       | -          | -         | -     | 245,000       |
|           | FNMA                   | AA+    | 0.875 | 1.090   | 11/12/15 | na       | 05/21/18      | -             | 497,325    | -         | -     | 497,325       |
|           | Synchrony CD           |        | 1.600 | 1.600   | 06/13/14 | na       | 06/13/18      | 245,000       | -          | -         | -     | 245,000       |
|           | Goldman CD             |        | 1.700 | 1.700   | 08/19/15 | na       | 08/20/18      | -             | 245,000    | -         | -     | 245,000       |
|           | GE Cap CD              |        | 1.800 | 1.800   | 09/05/14 | na       | 09/05/18      | -             | 245,000    | -         | -     | 245,000       |
|           | FHLB                   | AA+    | 1.200 | 1.260   | 06/29/15 | na       | 09/26/18      | 499,050       | -          | -         | -     | 499,050       |
|           | Capital 1 CD           |        | 1.650 | 1.650   | 10/13/15 | na       | 10/09/18      | 179,000       | -          | -         | -     | 179,000       |
|           | Ally Bank CD           |        | 1.600 | 1.600   | 10/29/15 | na       | 10/29/18      | 245,000       | -          | -         | -     | 245,000       |
|           | Sallie Mae CD          |        | 1.600 | 1.600   | 12/09/15 | na       | 12/10/18      | -             | 245,000    | -         | -     | 245,000       |
|           | FHLB                   | AA+    | 1.240 | 1.240   | 02/08/17 | 01/23/18 | 01/23/19      | -             | 500,000    | -         | -     | 500,000       |
|           | FNMA                   | AA+    | 1.000 | 1.000   | 07/25/16 | 04/25/17 | 01/25/19      | 499,900       | -          | -         | -     | 499,900       |
|           | FHLMC                  | AA+    | 0.750 | 0.750   | 04/27/16 | 04/26/17 | 04/26/19      | 750,000       | -          | -         | -     | 750,000       |
|           | Enerbank CD            |        | 1.500 | 1.579   | 06/18/15 | na       | 05/15/19      | 232,301       | -          | -         | -     | 232,301       |
|           | FHLMC                  | AA+    | 1.000 | 1.000   | 06/28/16 | 03/28/17 | 06/28/19      | -             | 750,000    | -         | -     | 750,000       |
|           | FFCB                   | AA+    | 1.080 | 1.080   | 07/12/16 | 03/12/17 | 07/12/19      | 499,675       | -          | -         | -     | 499,675       |
|           | FHLMC                  | AA+    | 1.000 | 1.000   | 08/30/16 | 05/28/17 | 08/28/19      | 750,000       | -          | -         | -     | 750,000       |
|           | Barclays CD            |        | 1.900 | 1.900   | 09/16/15 | na       | 09/16/19      | -             | 245,000    | -         | -     | 245,000       |
|           | FHLMC                  | AA+    | 1.250 | 1.317   | 09/25/15 | na       | 10/02/19      | 498,665       | -          | -         | -     | 498,665       |
|           | FHLB                   | AA+    | 1.190 | 1.190   | 10/28/16 | 04/28/17 | 10/28/19      | -             | 500,000    | -         | -     | 500,000       |
|           | FHLMC                  | AA+    | 1.000 | 1.000   | 08/22/16 | 05/22/17 | 11/22/19      | -             | 750,000    | -         | -     | 750,000       |
|           | FNMA                   | AA+    | 1.350 | 1.350   | 06/30/16 | 03/30/17 | 12/30/19      | -             | 500,000    | -         | -     | 500,000       |
|           | FNMA                   | AA+    | 1.300 | 1.300   | 10/19/16 | 03/30/17 | 03/30/20      | 500,000       | -          | -         | -     | 500,000       |
|           | FNMA                   | AA+    | 1.500 | 1.500   | 05/27/16 | 05/28/17 | 05/29/20      | 750,000       | -          | -         | -     | 750,000       |
|           | HSBC Bank CD           |        | 1.400 | 1.400   | 09/16/16 | 07/08/18 | 07/08/20      | -             | 244,510    | -         | -     | 244,510       |
|           | FHLB                   | AA+    | 1.200 | 1.200   | 11/22/16 | 07/13/17 | 07/13/20      | 492,970       | -          | -         | -     | 492,970       |
|           | FNMA                   | AA+    | 1.400 | 1.400   | 08/24/16 | 05/24/17 | 08/24/20      | -             | 1,000,000  | -         | -     | 1,000,000     |
|           | Discover CD            |        | 1.500 | 1.500   | 10/26/16 | na       | 10/26/20      | 245,000       | -          | -         | -     | 245,000       |
|           | FFCB                   | AA+    | 1.380 | 1.380   | 11/04/16 | na       | 11/02/20      | -             | 499,600    | -         | -     | 499,600       |
|           | FFCB                   | AA+    | 1.770 | 1.770   | 12/07/16 | 12/07/17 | 12/07/20      | -             | 249,438    | -         | -     | 249,438       |
|           | FNMA                   | AA+    | 1.400 | 1.400   | 10/28/16 | 04/28/17 | 01/28/21      | 500,000       | -          | -         | -     | 500,000       |
|           | FFCB                   | AA+    | 1.620 | 1.620   | 11/18/16 | 03/17/17 | 02/17/21      | -             | 149,667    | -         | -     | 149,667       |
|           | FHLMC                  | AA+    | 1.250 | 1.250   | 02/26/16 | 05/26/17 | 02/26/21      | -             | 514,000    | -         | -     | 514,000       |
|           | Wells Fargo CD         |        | 1.150 | 1.150   | 03/04/16 | 09/04/18 | 03/04/21      | -             | 243,000    | -         | -     | 243,000       |
|           | FFCB                   | AA+    | 1.620 | 1.620   | 04/12/16 | 04/12/17 | 04/12/21      | 749,925       | -          | -         | -     | 749,925       |
|           | Comenty Bk CD          |        | 1.650 | 1.650   | 06/30/16 | na       | 06/30/21      | -             | 245,000    | -         | -     | 245,000       |
|           | FNMA                   | AA+    | 1.500 | 1.500   | 07/27/16 | 04/27/17 | 07/27/21      | -             | 500,000    | -         | -     | 500,000       |
|           | JPM Chase CD           |        | 1.650 | 1.650   | 08/16/16 | 08/16/17 | 08/16/21      | -             | 245,000    | -         | -     | 245,000       |
|           | FHLMC                  | AA+    | 1.600 | 1.600   | 08/25/16 | 05/25/17 | 08/25/21      | 1,000,000     | -          | -         | -     | 1,000,000     |
|           | FHLB                   | AA+    | 1.625 | 1.625   | 09/30/16 | 03/30/17 | 09/30/21      | -             | 1,000,000  | -         | -     | 1,000,000     |
|           | FNMA                   | AA+    | 1.550 | 1.550   | 10/31/16 | 04/28/17 | 10/28/21      | 1,000,000     | -          | -         | -     | 1,000,000     |
|           | FHLMC                  | AA+    | 1.875 | 1.875   | 11/30/16 | 05/26/17 | 11/30/21      | -             | 1,000,000  | -         | -     | 1,000,000     |
|           | SDCIP                  | AAA    | na    | 1.038   | Various  | na       | Open          | -             | 5,165,766  | -         | -     | 5,165,766     |
|           | LAIF                   |        | na    | 0.777   | Various  | na       | Open          | 11,185,807    | 11,185,807 | -         | -     | 22,371,614    |
|           | Total Cost             |        |       |         |          |          | 22,056,998    | 29,725,953    | -          | -         | -     | 51,782,951    |
|           | Unrealized Gain/(Loss) |        |       |         |          |          | (131,648)     | (158,973)     | -          | -         | -     | (290,621)     |
|           | Market Value           |        |       |         |          |          | \$ 21,925,350 | \$ 29,566,980 | \$ -       | \$ -      | \$ -  | \$ 51,492,330 |

| By Investment Type       |          |        |       |          | Total        |               |              |               |               |               |
|--------------------------|----------|--------|-------|----------|--------------|---------------|--------------|---------------|---------------|---------------|
| Reference                | Settled  | Coupon | Yield | Matures  | CDs          | Agencies      | LGIPs        | LAIF          | Cost          | Market        |
| FNMA                     | 01/09/13 | 1.125  | 0.705 | 04/27/17 | -            | 1,017,750     | -            | -             | 1,017,750     | 1,001,000     |
| SAFRA CD                 | 01/28/16 | 0.900  | 0.900 | 04/28/17 | 245,000      | -             | -            | -             | 245,000       | 245,218       |
| Cardnl Bk CD             | 01/30/15 | 1.000  | 1.000 | 07/31/17 | 245,000      | -             | -            | -             | 245,000       | 245,639       |
| Mbank CD                 | 09/20/13 | 1.500  | 1.500 | 09/20/17 | 245,000      | -             | -            | -             | 245,000       | 246,235       |
| FNMA                     | 02/24/15 | 0.875  | 0.917 | 10/26/17 | -            | 499,465       | -            | -             | 499,465       | 500,290       |
| FNMA                     | 12/02/15 | 0.875  | 0.917 | 10/26/17 | -            | 499,625       | -            | -             | 499,625       | 500,290       |
| Compass CD               | 12/09/15 | 1.300  | 1.300 | 12/11/17 | 245,000      | -             | -            | -             | 245,000       | 245,968       |
| FFCB                     | 10/22/15 | 0.840  | 0.840 | 01/22/18 | -            | 500,000       | -            | -             | 500,000       | 499,005       |
| FFCB                     | 10/21/15 | 0.930  | 0.930 | 04/13/18 | -            | 499,705       | -            | -             | 499,705       | 498,825       |
| Am Exp CD                | 04/29/15 | 1.100  | 1.100 | 04/30/18 | 245,000      | -             | -            | -             | 245,000       | 245,576       |
| FNMA                     | 11/12/15 | 0.875  | 1.090 | 05/21/18 | -            | 497,325       | -            | -             | 497,325       | 498,875       |
| Synchrony CD             | 06/13/14 | 1.600  | 1.600 | 06/13/18 | 245,000      | -             | -            | -             | 245,000       | 246,279       |
| Goldman CD               | 08/19/15 | 1.700  | 1.700 | 08/20/18 | 245,000      | -             | -            | -             | 245,000       | 246,798       |
| GE Cap CD                | 09/05/14 | 1.800  | 1.800 | 09/05/18 | 245,000      | -             | -            | -             | 245,000       | 247,146       |
| FHLB                     | 06/29/15 | 1.200  | 1.260 | 09/26/18 | -            | 499,050       | -            | -             | 499,050       | 500,255       |
| Capital 1 CD             | 10/13/15 | 1.650  | 1.650 | 10/09/18 | 179,000      | -             | -            | -             | 179,000       | 180,258       |
| Ally Bank CD             | 10/29/15 | 1.600  | 1.600 | 10/29/18 | 245,000      | -             | -            | -             | 245,000       | 246,700       |
| Sallie Mae CD            | 12/09/15 | 1.600  | 1.600 | 12/10/18 | 245,000      | -             | -            | -             | 245,000       | 246,423       |
| FHLB                     | 02/08/17 | 1.240  | 1.240 | 01/23/19 | -            | 500,000       | -            | -             | 500,000       | 499,185       |
| FNMA                     | 07/25/16 | 1.000  | 1.000 | 01/25/19 | -            | 499,900       | -            | -             | 499,900       | 495,960       |
| FHLMC                    | 04/27/16 | 0.750  | 0.750 | 04/26/19 | -            | 750,000       | -            | -             | 750,000       | 749,573       |
| Enerbank CD              | 06/18/15 | 1.500  | 1.579 | 05/15/19 | 232,301      | -             | -            | -             | 232,301       | 233,361       |
| FHLMC                    | 06/28/16 | 1.000  | 1.000 | 06/28/19 | -            | 750,000       | -            | -             | 750,000       | 746,670       |
| FFCB                     | 07/12/16 | 1.080  | 1.080 | 07/12/19 | -            | 499,675       | -            | -             | 499,675       | 493,610       |
| FHLMC                    | 08/30/16 | 1.000  | 1.000 | 08/28/19 | -            | 750,000       | -            | -             | 750,000       | 746,985       |
| Barclays CD              | 09/16/15 | 1.900  | 1.900 | 09/16/19 | 245,000      | -             | -            | -             | 245,000       | 248,268       |
| FHLMC                    | 09/25/15 | 1.250  | 1.317 | 10/02/19 | -            | 498,665       | -            | -             | 498,665       | 497,110       |
| FHLB                     | 10/28/16 | 1.190  | 1.190 | 10/28/19 | -            | 500,000       | -            | -             | 500,000       | 494,720       |
| FHLMC                    | 08/22/16 | 1.000  | 1.000 | 11/22/19 | -            | 750,000       | -            | -             | 750,000       | 744,953       |
| FNMA                     | 06/30/16 | 1.350  | 1.350 | 12/30/19 | -            | 500,000       | -            | -             | 500,000       | 495,105       |
| FNMA                     | 10/19/16 | 1.300  | 1.300 | 03/30/20 | -            | 500,000       | -            | -             | 500,000       | 494,565       |
| FNMA                     | 05/27/16 | 1.500  | 1.500 | 05/29/20 | -            | 750,000       | -            | -             | 750,000       | 736,838       |
| HSBC Bank CD             | 09/16/16 | 1.400  | 1.400 | 07/08/20 | 244,510      | -             | -            | -             | 244,510       | 242,714       |
| FHLB                     | 11/22/16 | 1.200  | 1.200 | 07/13/20 | -            | 492,970       | -            | -             | 492,970       | 491,040       |
| FNMA                     | 08/24/16 | 1.400  | 1.400 | 08/24/20 | -            | 1,000,000     | -            | -             | 1,000,000     | 986,880       |
| Discover CD              | 10/26/16 | 1.500  | 1.500 | 10/26/20 | 245,000      | -             | -            | -             | 245,000       | 241,038       |
| FFCB                     | 11/04/16 | 1.380  | 1.380 | 11/02/20 | -            | 499,600       | -            | -             | 499,600       | 487,655       |
| FFCB                     | 12/07/16 | 1.770  | 1.770 | 12/07/20 | -            | 249,438       | -            | -             | 249,438       | 248,623       |
| FNMA                     | 10/28/16 | 1.400  | 1.400 | 01/28/21 | -            | 500,000       | -            | -             | 500,000       | 489,040       |
| FFCB                     | 11/18/16 | 1.620  | 1.620 | 02/17/21 | -            | 149,667       | -            | -             | 149,667       | 148,232       |
| FHLMC                    | 02/26/16 | 1.250  | 1.250 | 02/26/21 | -            | 514,000       | -            | -             | 514,000       | 508,870       |
| Wells Fargo CD           | 03/04/16 | 1.150  | 1.150 | 03/04/21 | 243,000      | -             | -            | -             | 243,000       | 244,042       |
| FFCB                     | 04/12/16 | 1.620  | 1.620 | 04/12/21 | -            | 749,925       | -            | -             | 749,925       | 728,183       |
| Comenty Bk CD            | 06/30/16 | 1.650  | 1.650 | 06/30/21 | 245,000      | -             | -            | -             | 245,000       | 241,977       |
| FNMA                     | 07/27/16 | 1.500  | 1.500 | 07/27/21 | -            | 500,000       | -            | -             | 500,000       | 484,500       |
| JPM Chase CD             | 08/16/16 | 1.650  | 1.650 | 08/16/21 | 245,000      | -             | -            | -             | 245,000       | 240,039       |
| FHLMC                    | 08/25/16 | 1.600  | 1.600 | 08/25/21 | -            | 1,000,000     | -            | -             | 1,000,000     | 968,460       |
| FHLB                     | 09/30/16 | 1.625  | 1.625 | 09/30/21 | -            | 1,000,000     | -            | -             | 1,000,000     | 968,300       |
| FNMA                     | 10/31/16 | 1.550  | 1.550 | 10/28/21 | -            | 1,000,000     | -            | -             | 1,000,000     | 970,880       |
| FHLMC                    | 11/30/16 | 1.875  | 1.875 | 11/30/21 | -            | 1,000,000     | -            | -             | 1,000,000     | 989,449       |
| SDCIP                    | Various  |        | 1.038 | Open     | -            | -             | 5,165,766    | -             | 5,165,766     | 5,136,000     |
| LAIF                     | Various  |        | 0.777 | Open     | -            | -             | -            | 22,371,614    | 22,371,614    | 22,358,725    |
| Total Cost               |          |        |       |          | 4,328,811    | 19,916,760    | 5,165,766    | 22,371,614    | 51,782,951    |               |
| Unrealized Gain/(Loss)   |          |        |       |          | 4,870        | (252,835)     | (29,766)     | (12,890)      | (290,621)     |               |
| Market Value             |          |        |       |          | \$ 4,333,681 | \$ 19,663,925 | \$ 5,136,000 | \$ 22,358,724 | \$ 51,492,330 | \$ 51,492,330 |
| Percentage of Portfolio  |          |        |       |          | 8.34         | 38.5%         | 10.0%        | 43.2%         |               |               |
| Investment Policy Limits |          |        |       |          | 20.0%        | 60.0%         | 40.0%        | 60.0%         |               |               |

## Vallecitos Board Declares Drought Over

On February 15, 2017, the Vallecitos Water District’s Board of Directors voted to rescind the voluntary drought restrictions under its “Level 1 – Drought Watch.” Vallecitos customers may irrigate any day of the week with no limit on the number of watering days, and may irrigate their landscapes for as many minutes as needed. However, the Board continued to express their desire to sustain water conservation as a permanent way of life. Vallecitos’ ordinance permanently prohibits the following wasteful practices:

- A customer shall not allow water to leave the customer’s property by drainage onto adjacent properties or public or private roadways or streets or gutters due to excessive irrigation and/or uncorrected leaks.
- The application of potable water to outdoor landscaping during and after 48 hours of a measurable rain event.
- Washing any paved area (sidewalks, driveways, parking areas, tennis courts, etc.) is only allowed to alleviate immediate safety or sanitation hazards. To relieve hazards, only a power washer or a hose with a shutoff nozzle may be used.
- Most irrigation must occur before 10:00 a.m. or after 6:00 p.m.
- A customer shall not use non-recirculating ornamental or cascading fountains.
- Vehicle washing shall only be done in a commercial car wash or by using a hose with an automatic shutoff nozzle or hand-held container.
- A customer shall not continuously fill swimming pools and spas that are draining due to uncorrected leaks.
- Customers shall repair or stop all water leaks upon discovery or within 48 hours of notification by Vallecitos Water District.
- The use of potable water for irrigation of ornamental turf within the public street rights of ways, including adjacent landscape strips.
- Restaurants and other food establishments shall only serve and refill water upon request
- Guests in hotels, motels, and other commercial lodging establishments shall be provided the option of not laundering towels and linens daily.

Vallecitos’ resolution was approved in response to the San Diego County Water Authority’s action on January 26, 2017, declaring the drought over in San Diego County.

For more detailed information on the permanent prohibitions, go to [www.vwd.org/drought](http://www.vwd.org/drought).

*Frank Gehrke, Chief of the California Cooperative Snow Surveys for the Department of Water Resources, addresses the media in February 2017. Snow survey in the Sierra Nevada was measured at 130% of normal.*



The Vallecitos Water District's newsletter has a new look. We've replaced "Splash!" with a new name: "Between the Pipes." Our new name more accurately reflects the work that we do to provide water, wastewater and recycled water services.

## Rate study underway

Living in a semi-arid desert, much of our water comes by way of the Bay Delta in Northern California and the Colorado River through two of the most complex delivery systems in the world. Recently, Vallecitos began receiving a new drought-resilient, local water supply from the desalination plant in Carlsbad. Although these sources have done much to improve our quality of life, transporting water from these origins does come at a premium price.

Regardless of the source, it costs money to treat the water, test the quality, keep it safe, store it for later use, and pump it through miles of canals, tunnels, or pipelines. Our region's water supplies have become increasingly more expensive for three main reasons:

- **The increasing cost of new water supplies.**
- **Rate increases by the Metropolitan Water District of Southern California, our region's largest water supplier.**
- **Construction, financing and debt costs for major local and regional water projects that enhance water supply reliability for our area.**

Rate increases will soon be necessary to cover these escalating costs so we can continue to do what we do best...providing safe, reliable and sustainable water and wastewater services to our customers. In the coming months, Vallecitos' Board will consider rate increases. Even with the upcoming proposed rate increases, it's important to remember that:

- Vallecitos is a public agency and does not operate for profit, therefore we can only charge the actual cost for any services we provide.
- As 100% of our water is imported, when our wholesalers raise the water rates, this can significantly affect our customers' water bills.
- Vallecitos' rates and charges are structured to reduce rate volatility that results from fluctuations in sales
- Vallecitos works very hard to keep rates as low as possible. As an example, 96 percent of what our average customer pays for water is what we pay our wholesaler for the same water.
- Vallecitos still has some of the lowest water rates in San Diego County.

# Glenn Pruim appointed as Vallecitos' new General Manager

The Vallecitos Water District is pleased to announce that after a nationwide search with over 50 applicants, the Board of Directors appointed Glenn Pruim as its new General Manager. Mr. Pruim replaced Dennis O. Lamb, who retired last June.

Glenn Pruim received both his Bachelors and Masters of Civil Engineering from the University of Illinois. A registered engineer in Civil and Mechanical Engineering, Glenn Pruim has an extensive background in public works, engineering, and water and wastewater operations. During his ten years at the City of Carlsbad, he served as City Engineer, Public Works Director and General Manager/ Utilities Director of the City's subsidiary, Carlsbad Municipal Water District.

Further, he functioned as lead negotiator with Poseidon Resources and the San Diego County Water Authority for the Carlsbad Desalination Project. More recently, Mr. Pruim

worked for the City of Encinitas and San Dieguito Water District as Public Works Director/General Manager, where he concurrently held titles of: City Engineer, Public Works Director, San Dieguito Water District General Manager, Encinitas Sanitary District General Manager and Cardiff Sanitation District General Manager.

We are excited to have Glenn join us," said Vallecitos Board President, Craig Elitharp. "After a nationwide search we selected the ideal candidate: a General Manager with skills in drinking water, desalinated water, recycled water and wastewater collection — and also one who knows and understands California's water woes as well as the local North County community."

"I'm very excited to join Vallecitos as the General Manager. In my previous positions with Carlsbad and Encinitas, I have worked side by side with Vallecitos on water and wastewater issues and have always been impressed by their leadership and professionalism. I've also been a Vallecitos customer for the past 14 years and have received excellent service."

Glenn Pruim and his wife Jeanne live in San Marcos. They are parents to five sons. Mr. Pruim started his new duties in November of 2016.





201 Vallecitos de Oro  
 San Marcos, CA 92069  
 (760) 744-0460  
[www.vwd.org](http://www.vwd.org)

**Board of Directors**

Division 1: Betty Evans  
 Division 2: Jim Hernandez  
 Division 3: Craig Elitharp  
 Division 4: Mike Sannella  
 Division 5: Hal Martin

**Management Staff**

Glenn Pruiem, General Manager  
 Tom Scaglione, Assistant General Manager  
 Rhondi Emmanuel, Administrative Services Manager  
 John Fusco, Finance Manager  
 Ed Pedrazzi, Operations and Maintenance Manager  
 James Gumpel, District Engineer



*Between the Pipes is a publication of information and interest to Vallecitos water and sewer customers. If you receive water or sewer services from another district, please disregard any information that does not apply to you.*

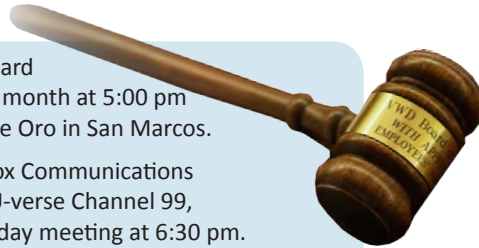
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ECRWSS

The public is welcome to attend the Vallecitos Board Meetings the first and third Wednesday of each month at 5:00 pm in the Administration building—201 Vallecitos de Oro in San Marcos.

Meetings are also aired on San Marcos TV on Cox Communications Channel 19, Time Warner Channel 24 or AT&T U-verse Channel 99, which air on the Monday following the Wednesday meeting at 6:30 pm. Visit [www.san-marcos.net/smtv](http://www.san-marcos.net/smtv) for programming schedule.



“Like us” on Facebook or follow us on Twitter @vallecitoswater

## Craig Elitharp named 2017 Board President



At a regular meeting held on December 7, 2016, the Vallecitos Board voted to move forward with their annual reorganization. Craig Elitharp was elected unanimously to serve as president and Jim Hernandez to serve as vice president for 2017.

Vice President Jim Hernandez, Division 2 representative, was elected to the Board in 2010. Jim is an architect and small business owner and has lived in San Marcos for more than 40 years.

Elitharp and Hernandez are joined by three Directors who were all recently re-elected to the Vallecitos Board: Directors Betty Evans, Division 1; Mike Sannella, Division 4; and Hal Martin, Division 5.

President Craig Elitharp, Division 3 representative, was first elected to the District's Board of Directors in 2014. He retired from the Rancho California Water District in June 2014 with more than 24 years of experience managing water and wastewater operations.

The Board meets regularly the first and third Wednesday of each month at 5:00 p.m. in Vallecitos' Administration Building, located at 201 Vallecitos de Oro, in San Marcos. The meetings are open to the public.

**DATE: MARCH 15, 2017**  
**TO: BOARD OF DIRECTORS**  
**SUBJECT: PUMP ZONE CHARGES**

**BACKGROUND:**

At its January 18, 2017 meeting, the Vallecitos Water District Board considered an item to change the pump zone charges. These surcharges are intended to recover the cost of electricity used to pump water to higher pressure zones in the District's service area. The fundamental policy governing this issue is that those properties benefitting from the pumping operations should pay for the cost of power to pump to these higher elevations.

At the meeting, the Board was presented with a revised pump zone surcharge schedule that was developed by looking at the electricity costs incurred in each pump zone as well as the amount of water which was pumped to the higher elevations in those zones. The calculations resulted in a table of surcharges per unit of water pumped in each zone. The table also included the current pump zone surcharges per zone and presented the difference in the existing and proposed surcharges. In each zone, the proposed surcharge was higher than the existing surcharge. The Board was also presented an option to phase in the surcharge increases. The phasing included implementing two-thirds of the increase effective immediately and the other one-third on July 1, 2017. A copy of the January 18 staff report is included as Attachment 1.

At that meeting, the Board elected to increase the surcharges per the recommended chart in one step, with no phasing. The Board also directed staff to delay any increases until the affected pump zone customers had a chance to review the proposed increase and provide feedback. Staff was directed to provide a letter to each pump zone customer to inform them of the proposed increase and to provide at least 45 days for the customers to provide feedback prior to the surcharges becoming effective.

Letters to the customers were mailed on February 28, 2017. Subsequent to delivery of the letters, pump zone customers have provided feedback in a number of ways, including telephone calls to the District's Customer Service number, District staff, Board members and City Council members, as well as letters and social media posts. As of March 8, 2017, the Customer Service department has received approximately 20 calls regarding this issue. The primary concerns raised by the customers relate to the amount of the increase, the short notice provided and the lack of any phasing in the establishment of new surcharges. The majority of complaints were generated in the Coronado Hills pump zone, which would have seen the largest charge increase.

**DISCUSSION:**

The purpose of this item is to provide the Board and the public an opportunity to discuss pump zone surcharges before implementation. In a complex water distribution system, with large volumes of water being pumped to a variety of customers in numerous pump zones, there is not one specific way to calculate and allocate the surcharges. Fundamentally, however, the basic premise applies that customers who receive a benefit not received by other customers should pay for that benefit.

Given the interconnected nature of the District's water storage and distribution system, and the various water supply sources and delivery systems, it can be argued that not all pump zone operations solely benefit those customers in the designated pump zones.

At the meeting on March 15, 2017, staff will present the Board with several different options regarding how these pump zone surcharges should be allocated. The options may include allocating costs based on:

- The actual electricity costs, number of customers and water delivered within a specific pump zone
- All customers in the pump zones sharing in the pumping costs based on a combination of how much water is pumped to each zone and how high the zone is (weighted lift-volume approach)
- All customers in the pump zones equally sharing the pumping costs based solely on how much water is pumped to that zone
- All customers in the District sharing in the costs associated with pumping water to higher elevations
- Customers in non-pump zones (lower elevations) sharing in the pumping costs in a manner relative to the benefits they could receive from having water stored at higher elevations

In addition to providing staff direction on the preferred alternative for allocating the pumping costs, staff is seeking direction on the timing/phasing of the implementation of revised pumping cost recovery.

**RECOMMENDATIONS:**

Staff is seeking direction on the Board's preferred methodology of pump charge allocation as well as direction as to when the surcharges should become effective and whether there should be a phased implementation for the revised surcharges.



# Attachment 1

**DATE: JANUARY 18, 2017**  
**TO: BOARD OF DIRECTORS**  
**SUBJECT: PROPOSED PUMP ZONE CHARGES FOR CALENDAR YEAR 2017**

**BACKGROUND:**

The District established ten pump zones, servicing approximately 2,867 customers, to recover the cost of electricity related to pumping water to higher elevation customers. Only customers directly benefiting from the additional cost of pumping are charged the actual power cost for water delivered.

Pump zone charges were last adjusted on July 1, 2015 (Current pump zone charges and expenses are listed on Table 1). Traditionally, adjustments to the pump zone charges occur every July.

**DISCUSSION:**

Pump zone charges are determined by tracking the actual SDG&E power costs to provide the service to the respective pump zone. Over the past several years, the pump zone charges have not kept pace with the escalating cost of electricity required to pump water to the higher elevations, resulting in a deficit of approximately \$319,000 as of November 30, 2016. The deficit is growing by about \$20,000 per month.

Graph 1 shows the historical revenues (green bar) compared to the cost of electricity (purple bar) as well as the overall surplus/deficit (red line).

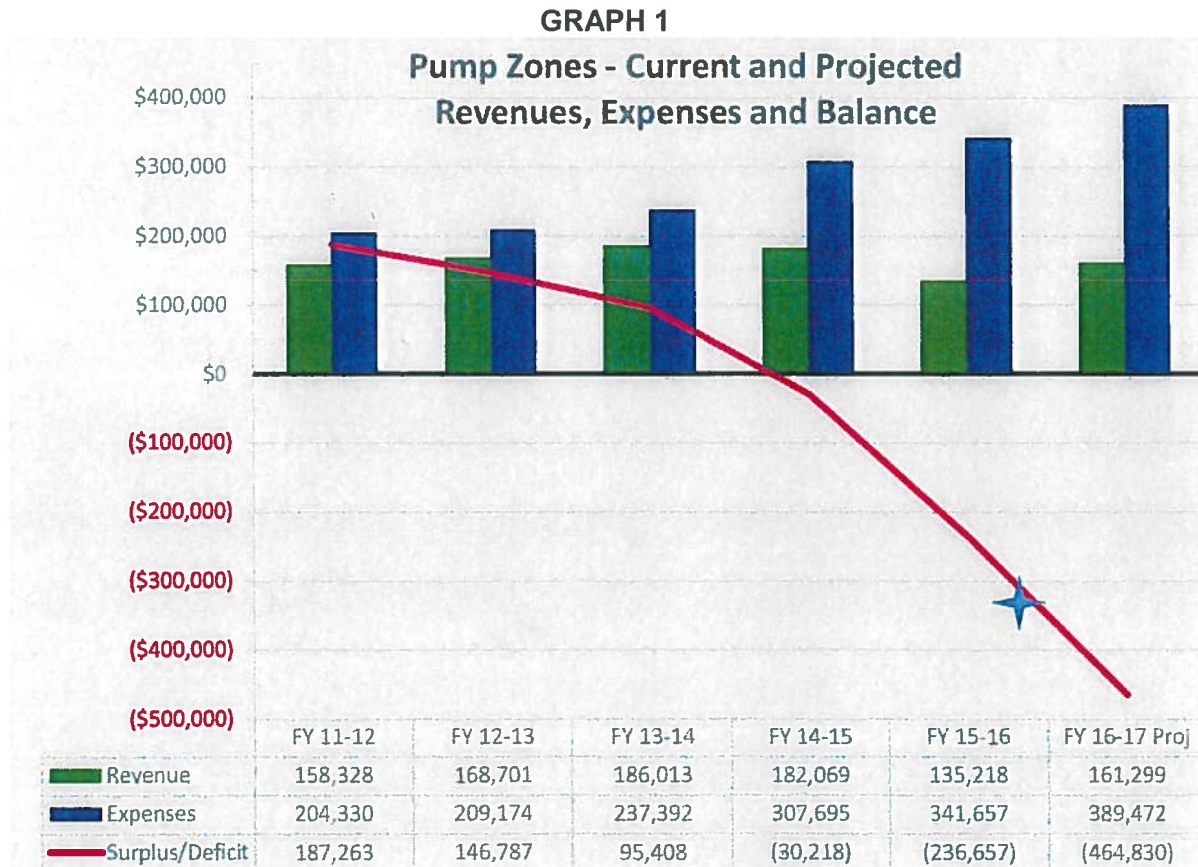


Table 1 displays the existing customer charge per unit of pumped water as well as the SDG&E calculated expense per zone. In all ten of the pump zones, the current charge passed on to the

customer is below the cost of providing the service. Customers in these zones have been subsidized by customers outside of the pump zones. (HGL = Hydraulic Grade Line)

**TABLE 1**

| # of Meters | PUMP ZONE                       | Existing Charge | SDG&E Calculated Expense | Per Unit Shortage |
|-------------|---------------------------------|-----------------|--------------------------|-------------------|
| 127         | 1 - North Twin Oaks - 1,330 HGL | \$0.50          | \$0.94                   | <b>\$0.44</b>     |
| 58          | 2 - Deer Springs - 1,235 HGL    | 0.20            | 0.47                     | <b>0.27</b>       |
| 25          | 3 - Coggan - 1,608 HGL          | 0.15            | 0.92                     | <b>0.77</b>       |
| 159         | 4 - Coronado Hills - 1,530 HGL  | 0.06            | 1.24                     | <b>1.18</b>       |
| 12          | 5 - Wulff - 1,588 HGL           | 0.58            | 1.02                     | <b>0.44</b>       |
| 710         | 6 - Palos Vista - 1,500 HGL     | 0.25            | 0.42                     | <b>0.17</b>       |
| 869         | 7 - School House - 1,115 HGL    | 0.01            | 0.12                     | <b>0.11</b>       |
| 797         | 8 - Double Peak - 1,530 HGL     | 0.18            | 0.24                     | <b>0.06</b>       |
| 125         | 9 - MeadowMark - 815 HGL        | 0.15            | 0.38                     | <b>0.23</b>       |
| 0           | 10 - High Point - 1,608 HGL     | 0.42            | 0.45                     | <b>0.03</b>       |

Currently the average customer in a pump zone (defined as a 5/8" meter using 12 units of water/month) has a combined water/sewer bill of approximately \$116.50/month. Passing through the entire SDG&E expense (Table 1) effective January 1, 2017 would increase the average customer's bill by approximately \$2.40/month.

An alternative to full cost recovery would be to only pass through 2/3 of the difference between the actual SDG&E power cost and the existing pump zone charges effective January 1, 2017 as shown in Table 2. The adjustment for the remaining 1/3 difference would be effective July 1, 2017. This alternative would increase the deficit by about \$11,000 per month for an overall projected deficit of \$414,000 at fiscal year-end.

**TABLE 2**

| # of Meters | PUMP ZONE                       | Current         | Alternative 2               |                             |
|-------------|---------------------------------|-----------------|-----------------------------|-----------------------------|
|             |                                 | Existing Charge | Per Unit Charge Jan 1, 2017 | Per Unit Charge Jul 1, 2017 |
| 127         | 1 - North Twin Oaks - 1,330 HGL | \$0.50          | <b>\$0.79</b>               | <b>\$0.94</b>               |
| 58          | 2 - Deer Springs - 1,235 HGL    | 0.20            | <b>0.38</b>                 | <b>0.47</b>                 |
| 25          | 3 - Coggan - 1,608 HGL          | 0.15            | <b>0.66</b>                 | <b>0.92</b>                 |
| 159         | 4 - Coronado Hills - 1,530 HGL  | 0.06            | <b>0.84</b>                 | <b>1.24</b>                 |
| 12          | 5 - Wulff - 1,549 HGL           | 0.58            | <b>0.87</b>                 | <b>1.02</b>                 |
| 710         | 6 - Palos Vista - 1,500 HGL     | 0.25            | <b>0.36</b>                 | <b>0.42</b>                 |
| 869         | 7 - San Elijo - 1,115 HGL       | 0.01            | <b>0.08</b>                 | <b>0.12</b>                 |
| 797         | 8 - Double Peaks - 1,530 HGL    | 0.18            | <b>0.22</b>                 | <b>0.24</b>                 |
| 125         | 9 - Meadowmark - 815 HGL        | 0.15            | <b>0.30</b>                 | <b>0.38</b>                 |
| 0           | 10 - High Point - 1,608 HGL     | 0.42            | <b>0.44</b>                 | <b>0.45</b>                 |

Future year pass through adjustments will be effective annually on July 1<sup>st</sup> based on the previous year's actual average energy cost of pumping water to each of the individual pump zones.

**FISCAL IMPACT:**

The adopted budget for fiscal year 2016/17 included \$300,000 in pumping charge revenue.

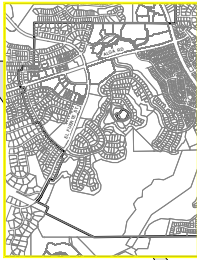
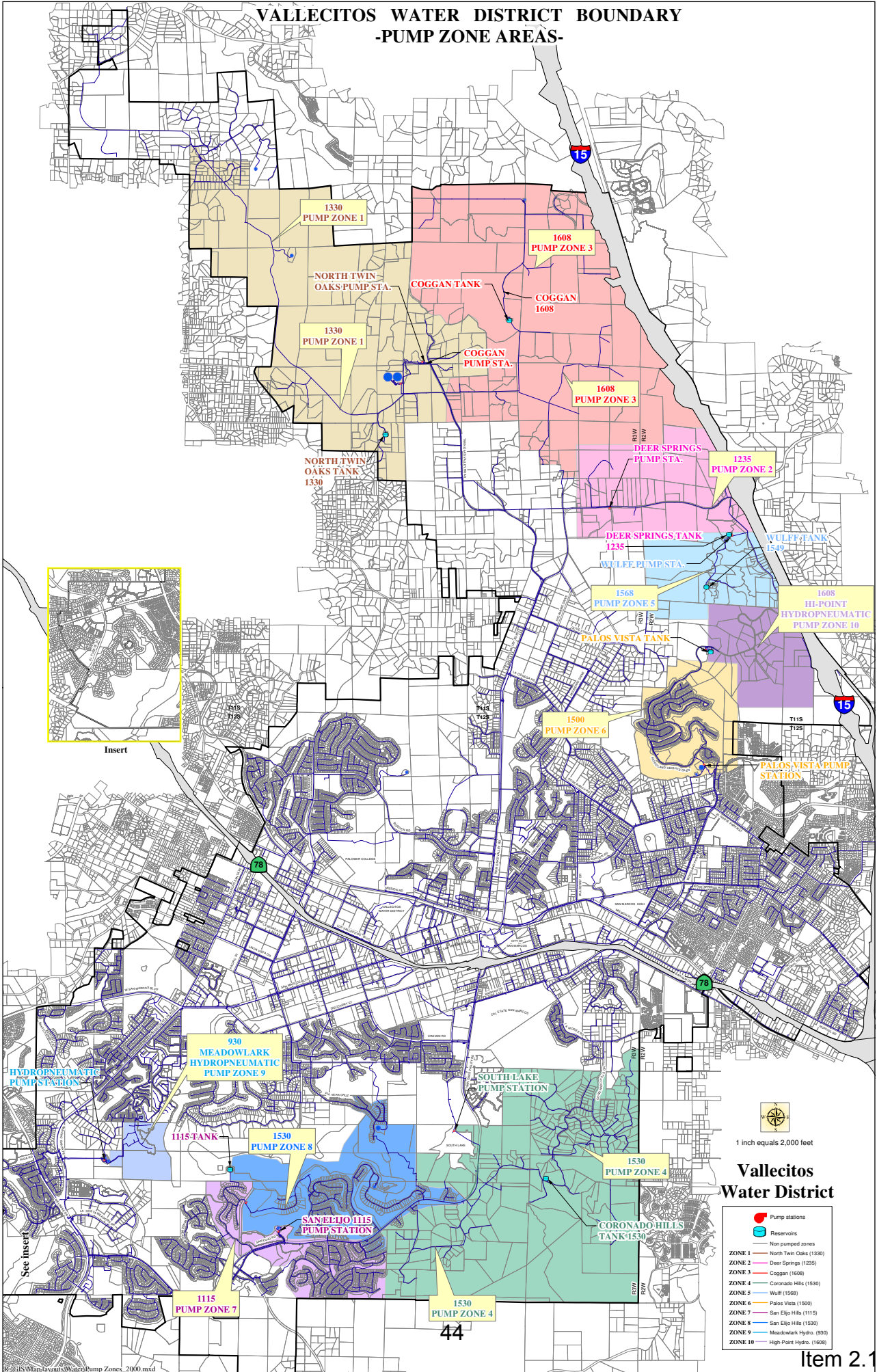
Adopting the pass through charges as shown in Table 1 (effective January 1, 2017 for bills mailed out after February 1, 2017) would recover pumping charges of approximately \$237,000, which is \$63,000 less than budgeted

Adopting the pass through charges as shown in Table 2 (effective January 1, 2017 for bills mailed out after February 1, 2017) would recover pumping charges of approximately \$211,000 which is \$89,000 less than budgeted.

**RECOMMENDATION:**

Staff recommends adoption of either Alternative 1 (Table 1) or Alternative 2 (Table 2) to be effective January 1, 2017 for bills mailed after February 1, 2017 and authorize staff to adjust pumping charges annually on July 1<sup>st</sup> to allow for full cost recovery.

# VALLECITOS WATER DISTRICT BOUNDARY -PUMP ZONE AREAS-



Insert

1 inch equals 2,000 feet

## Vallecitos Water District

- Pump stations
- Reservoirs
- Non pumped zones
- ZONE 1** — North Twin Oaks (1330)
- ZONE 2** — Deer Springs (1235)
- ZONE 3** — Coggan (1608)
- ZONE 4** — Coronado Hills (1530)
- ZONE 5** — Wulf (1568)
- ZONE 6** — Palos Vista (1500)
- ZONE 7** — San Eljo Hills (1115)
- ZONE 8** — San Eljo Hills (1530)
- ZONE 9** — Meadowlark Hydro (930)
- ZONE 10** — High Point Hydro (1608)

**DATE: MARCH 15, 2017**  
**TO: BOARD OF DIRECTORS**  
**SUBJECT: CHANGE ORDER REQUEST FOR MEADOWLARK WATER RECLAMATION FACILITY (MRF) TERTIARY MEDIA FILTER REPLACEMENT**

**BACKGROUND:**

MRF has six (6) concrete tertiary filters that process secondary wastewater effluent into recycled water. The media in the basins was installed in 2005 during a plant upgrade. The current media profile is being replaced with finer media to assist in removing smaller particles from the secondary wastewater effluent thereby improving turbidity and the quality of the recycled water. The new media will also reduce chemical use and increase efficiency of the filters.

**DISCUSSION:**

During removal of the existing media in the first three (3) tertiary filters, the epoxy coating of the concrete walls showed significant signs of failure. Failure of the concrete coating system is below the elevation of the media and therefore was not detected until the media was removed. If left unaddressed, failure of the coating system can cause structural degradation of the concrete over time.

The existing coating system is a high solids epoxy paint and was installed per the original specifications to protect the concrete filters from the secondary wastewater effluent. Modifications to the original design added a chlorine injector system upstream of the tertiary filters. This system adds chlorine to the effluent, necessary to reduce algal and bacteria growth in the filters, which can “foul” or clog the filters. The design modifications at that time did not upgrade the coating to a more robust, chlorine resistant system.

District Ordinance 146 Section 4.1.1 requires Board approval for change orders exceeding 10% of the Contract Value. However, staff requested the contractor begin repairs to the coating system under a contract change order for the following reasons:

- Prevents significant additional cost to repair the coating system later. Any recoating in the filters would require removal and replacement of media.
- To prevent construction delay costs.
- To reduce delays to the construction schedule which is affecting MRF returning to full operational capacity. Full operational capacity is necessary to meet contractual obligations, especially for the upcoming Spring and Summer months when recycled water demands increase.

**FISCAL IMPACT:**

The total cost and budget summary are as follows:

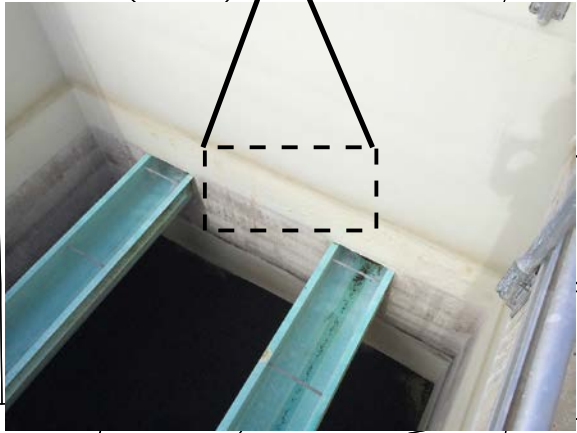
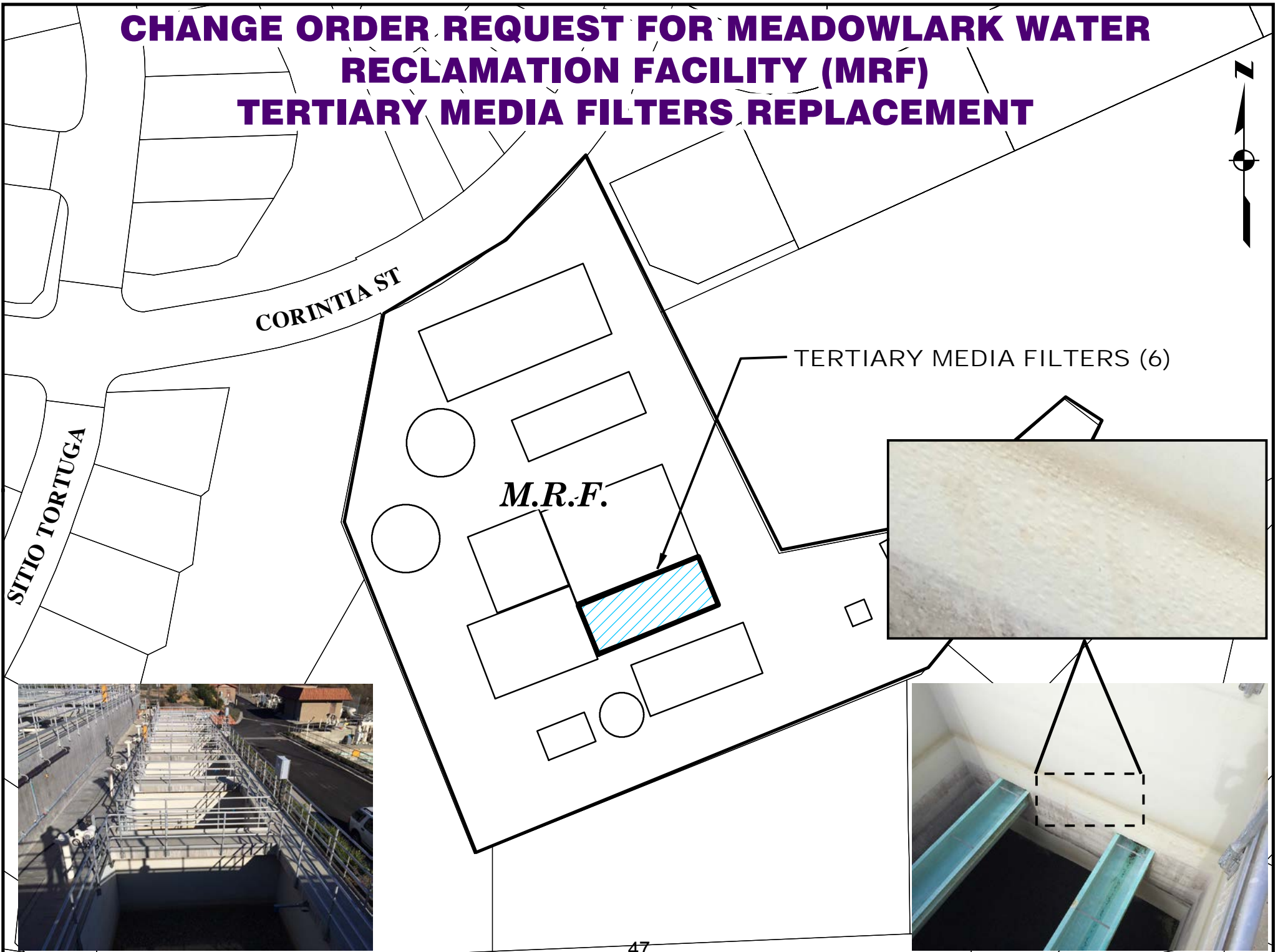
|                                |                  |
|--------------------------------|------------------|
| Budget                         | \$ 545,000       |
| Construction                   | \$ 250,753       |
| 10% Contingencies (estimate)   | \$ 25,075        |
| Specialty Services             | \$ 25,460        |
| Design                         | \$ 36,177        |
| Staff                          | \$ 35,570        |
| Overhead                       | <u>\$ 63,910</u> |
| Total at time of Project Award | \$ 436,945       |
| Change Order 1                 | \$ 153,803       |
| Current Total                  | \$ 590,748       |
| Budget Overage                 | (\$ 45,748)      |

A budget adjustment is not requested at this time and will be evaluated after the project is complete. If a budget adjustment is necessary, additional funds will be paid for out of the sewer replacement reserves.

**RECOMMENDATION:**

Approve construction change order to Carbon Activated Corporation in the amount of \$153,803 for the MRF Tertiary Media Filter Replacement, subject to provisions of the contract.

# CHANGE ORDER REQUEST FOR MEADOWLARK WATER RECLAMATION FACILITY (MRF) TERTIARY MEDIA FILTERS REPLACEMENT



# CHANGE ORDER REQUEST FOR MEADOWLARK WATER RECLAMATION FACILITY (MRF) TERTIARY MEDIA FILTERS REPLACEMENT





**DATE: MARCH 15, 2017**  
**TO: BOARD OF DIRECTORS**  
**SUBJECT: 2017 COST OF SERVICE AND RATE STRUCTURE STUDY REVIEW AND UPDATE**

**BACKGROUND:**

At the February 15, 2017 Board meeting, staff presented the development of the 2017 Cost of Service and Rate Structure Study. Consensus was provided by the Board to proceed with a water rate structure tiered by customer classes according to meter size. The Board also provided consensus to base the highest of the three tiers on average maximum use, leaving some committed desalinated water purchases in Tier 3 and moving some from Tier 3 to Tier 2.

**DISCUSSION:**

Staff has completed a spreadsheet documenting methodologies, processes and calculations for the study. All pages from the spreadsheet are attached and will be presented. This spreadsheet will be the basis for the Rate Model and final report.

**FISCAL IMPACT:**

None.

**RECOMMENDATION:**

This item is for discussion only.

## Table of Contents

- [Water Rate History](#)
- [Customer Classification Considerations](#)
- [Demand Projections](#)
- [Cost Considerations](#)
- [Supply Tranches](#)
- [Tier Development](#)
- [Revenue Requirement](#)
- [Cost Allocation](#)
- [Revenue Offsets](#)
- [Capital Replacement](#)
- [Peaking Factors](#)
- [Distribution of Revenue Requirement](#)
- [Units of Service](#)
- [Rates](#)

**Water Rate History**

**2002 Rates**

| RTS<br>for 5/8"<br>Meter | Per<br>Metered<br>Unit |
|--------------------------|------------------------|
| \$ 9.16                  | \$ 1.53                |

*San Diego County Water Authority unbundled their rate in 2013, switching from just a rate per Acre foot to fixed and variable charges. The per AF charge decreased when fixed costs were recovered separately. VWD implemented a tiered rate structure (by customer type) to mitigate any conservation incentive lost from passing through more fixed costs on the RTS and lowering the commodity charge.*

**2003 Rates**

| RTS<br>for 5/8"<br>Meter | Per Metered Unit<br><i>A Unit = 100 Cu Ft, or 748 gallons</i> |              |         |
|--------------------------|---|--------------|---------|
|                          | Tier  | Tier 2       | Tier 3  |
| \$ 11.55                 | \$ 1.41   | \$ 1.44      | \$ 1.59 |
| Residential              | 1 to 16   | 17 to 34     | 35 +    |
| Irrigation               | 1 to 174  | 175 to 769   | 770 +   |
| Commercial               | 1 to 61   | 62 to 529    | 530 +   |
| Agricultural             | 1 to 415  | 416 to 2,449 | 2,450 + |

*Starting in 2003, tier limits were established for each category of customer by analyzing average use and total use within the category. Ninety percent of average monthly use was set as the Tier 1 limit. The amount of use per customer totaled within each category that captured 90% of the use within that category was set as the Tier 2 limit.*

**2010 Commodity Rates**

|             | Tier 1    | Tier 2        | Tier 3  |
|-------------|-----------|---------------|---------|
| M&I         | \$ 2.60   | \$ 3.25       | \$ 3.90 |
| Ag          | \$ 2.60   | \$ 2.82       | \$ 3.01 |
| Multifamily | 1 - 6     | 7 - 11        | 12 +    |
| Meters      |           |               |         |
| < 1"        | 1 - 17    | 18 - 36       | 36 +    |
| 1"          | 1 - 60    | 61 - 214      | 215 +   |
| 1.5"        | 1 - 157   | 158 - 627     | 628 +   |
| 2"          | 1 - 242   | 243 - 806     | 807 +   |
| > 2"        | 1 - 1,133 | 1,134 - 3,970 | 3,971 + |

*The next significant change in commodity rates was effective in 2010. Customer classes were changed from type to meter size and tier price ranges were widened to induce conservation. The board contemplated a change to budget based rates. Tiers by meter size allowed bigger allotments for justified higher demands without having to go through complex technical billing changes figuring out a separate budget for every single parcel. Larger meters also paid higher RTS charges and paid for more capacity that they would otherwise be penalized for using had the District retained tiers by customer type. Tier breaks were calculated as before: the first at 90% of average use, the second capturing 90% of total demand. Ag's tiers accelerated less because the incentive to conserve already existed as water is a growers most significant cost. Tier premium revenue was compared to conservation costs and the cost of SDCWA water beyond MWD (cost of diversification) to ensure that tier premiums weren't inflated (overcharged).*

**2017 Commodity Rates**

|             | Tier 1  | Tier 2    | Tier 3        | Tier 4  |
|-------------|---------|-----------|---------------|---------|
| M&I         | \$ 3.08 | \$ 4.12   | \$ 5.33       | \$ 7.41 |
| Ag          | \$ 3.08 | \$ 4.12   | \$ 4.12       | \$ 4.12 |
| Multifamily | 1 - 5   | 1 - 6     | 7 - 11        | 12 +    |
| Meters      |         |           |               |         |
| < 1"        | 1 - 5   | 6 - 17    | 0 - 17        | 36 +    |
| 1"          | 1 - 5   | 6 - 60    | 61 - 214      | 215 +   |
| 1.5"        | 1 - 5   | 6 - 157   | 158 - 627     | 628 +   |
| 2"          | 1 - 5   | 6 - 242   | 243 - 806     | 807 +   |
| > 2"        | 1 - 5   | 6 - 1,133 | 1,134 - 3,970 | 3,971 + |

*The first outside cost of service study was prepared by Black & Veatch for 2013 rates. B&V affirmed the meter size methodology for tiers but used peaking factors to differentiate pricing. The study addressed a frugal use discount in place and recommended suspending the discount as it was not consistent with nexus requirement of Propositions 218 and 26 and the discount was only available to residential customers who used 5 units or less for the month. To ease the burden to low water users, the Board carved out a low tier, 1 to 5 units, for all customers, assigning only wholesales costs to that tier.*

*For multifamily, the first tier is per meter, Tiers 2 through 4 are per dwelling unit. The Ag tier was flattened to align with the industry standard.*

**Water Rate History**

*B&V was engaged again to perform a cost of service and rate study in 2016. Staff expressed concerned regarding tiers by meter size and compliance with Proposition 218. B&V's 2016 study eliminated the 5 unit carve out tier and changed customer class from meter size back to customer type, assigned 3 tiers to residential, 2 tiers to irrigation, and flat for remaining customers. The Board did not adopted the study or recommended rates, but instead passed through half of the wholesale increase which was significant due to 2016 being the first and full year of committed desal deliveries.*

*The main concern raised by the District's legal counsel regarding tiers by meter size was that two neighbors that use the same amount of water will be billed different amounts just because one has a 3/4" meter and the other a 1" meter. District staff researched and compared the District's current rate structure to a budget-based rate structure and the 2016 B&V rate structure. As shown in the table below, for customers using 60 units of water, a VWD customer with a 3/4" meter paid 42% more for water than a customer with a 1" meter. From a random sample of 10 Rancho California Water District bills, a customer using 60 units of water with a 3/4" meter pays 269% more than a customer using the same amount of water with a 1" meter. At Rancho, as with all agencies using budget-based rates, every customer will likely pay a varying amount for the same water use, because every customer has a unique water budget imposed upon them. The B&V rate structure also yielded varying cost recoveries for a single family resident with 60 units paying 61% more for the same amount of water through an irrigation meter.*

**Monthly Bill**

| Units used | VWD's 2017 Rates |        | Budget Based Rates |       | B&V 2017 Proposed Rates |        |        |        |        |
|------------|------------------|--------|--------------------|-------|-------------------------|--------|--------|--------|--------|
|            | 3/4"             | 1"     | 3/4"               | 1"    | SFR                     | Irr    | CI     | Public | Ag     |
| 34         | \$ 155           | \$ 135 | \$ 113             | \$ 36 | \$ 206                  | \$ 130 | \$ 166 | \$ 171 | \$ 163 |
| 60         | 344              | 242    | 277                | 75    | 404                     | 251    | 320    | 301    | 287    |
| 166        | 1,129            | 807    | 947                | 234   | 1,214                   | 754    | 947    | 907    | 795    |

*Water budgets imposed within a budget-based structure are justified through a complex analysis of each individual customer's needs. A meter-sized rate structure justifies need because larger meters are only provided to customers that have greater demands. A water rate structure tiered by meter size simulates the same allotments as a budget-based system without having to implement resource-draining methods, procedures, and technologies. Customers with larger meters pay higher ready-to-serve charges and paid for greater capacity in the system. Not recognizing meter sizes in a rate structure penalizes these customers for using capacity that is justified and paid for. This study analyzed the relative standard deviations of VWD use within customer classes by meter size and cusotmer classes by customer type and found that usage within meter size was more homogenous than usage with customer type classes.*

**Customer Classification Considerations**

Concerns were raised during the last rate study about tiering the rate structure by meter size because it resulted in customers paying varying amounts for the same usage because they have different meter sizes. As documents on the Rate History spreadsheet, comparisons to budget-based rate structure and structures tiered by customer type yielded greater variances from customer to customer for the same use. The analysis in the tables below compare the relative standard deviations of use by the District's customers grouped by meter size and grouped by customer type. There was less deviation when customers were grouped by meter size in both 2015 and 2016. Per AWWA's MI Manual, customer classification is "the grouping of customers into homogeneous groups or classes." The analysis below shows that grouping by meter size are more homogeneous than groupings by customer type. The analysis used average use rather than peaking because since the District is a water imported, the largest cost by far is supply, and supply now varies in cost. Peaking, or maximum monthly demands, were not analyzed since peaking makes up only 12% of recoverable costs, while supply was 78% according to the last cost of service study. Also, a meter-sized rate structure justifies need because larger meters are only provided to customers that have greater demands. A water rate structure tiered by meter size simulates the same allotments as a budget-based system without having to implement resource-draining methods, procedures, and technologies. Customers with larger meters pay higher ready-to-serve charges and paid for greater capacity in the system. Not recognizing meter sizes in a rate structure penalizes these customers for using capacity that is justified and paid for.

| Meter size | CY 2016  |           |                    |          |
|------------|----------|-----------|--------------------|----------|
|            | # meters | Avg Use   | Standard Deviation |          |
|            |          | per Month | Absolute           | Relative |
| < 1"       | 19,239   | 12        | 11                 | 96%      |
| 1"         | 1,021    | 40        | 66                 | 164%     |
| 1.5"       | 689      | 101       | 152                | 151%     |
| 2"         | 505      | 188       | 236                | 126%     |
| > 2"       | 101      | 511       | 754                | 148%     |

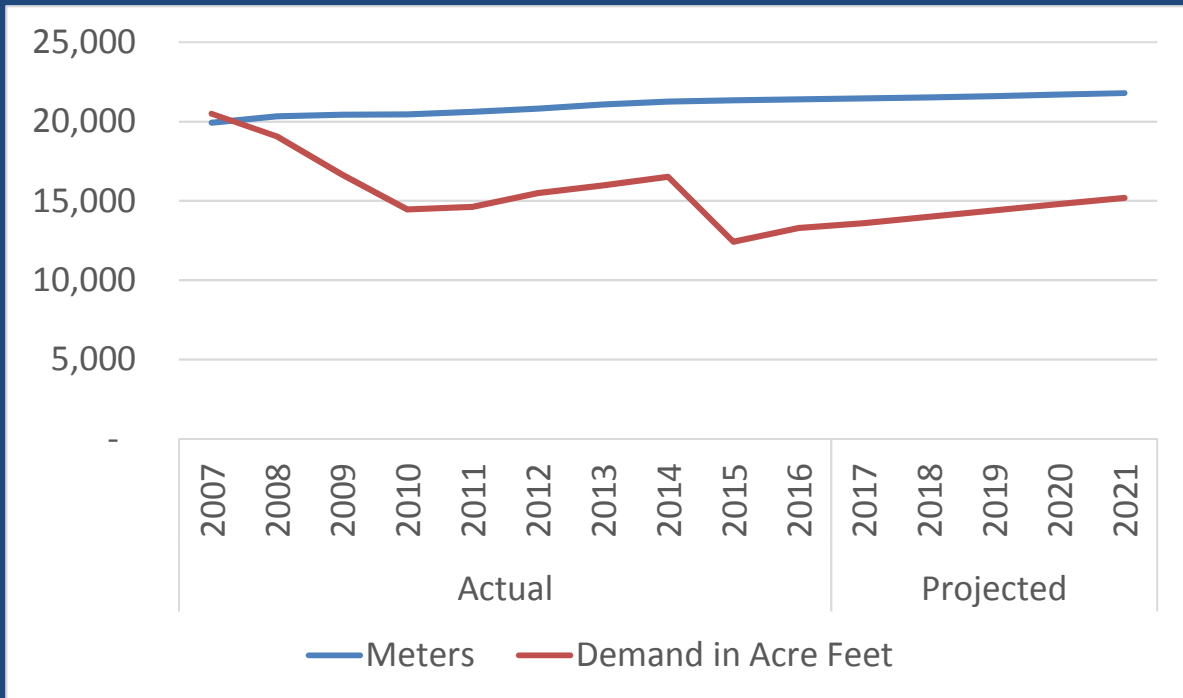
| Customer Type    | CY 2016  |           |                    |          |
|------------------|----------|-----------|--------------------|----------|
|                  | # meters | Avg Use   | Standard Deviation |          |
|                  |          | per Month | Absolute           | Relative |
| Residential - SF | 19,036   | 12        | 11                 | 96%      |
| Residential - MF | 512      | 142       | 282                | 198%     |
| Irrigation       | 826      | 106       | 175                | 165%     |
| Agriculture      | 115      | 280       | 450                | 160%     |
| Comm/Ind         | 939      | 49        | 106                | 216%     |
| Other            | 91       | 126       | 317                | 252%     |

| Meter size | CY 2015  |           |                    |          |
|------------|----------|-----------|--------------------|----------|
|            | # meters | Avg Use   | Standard Deviation |          |
|            |          | per Month | Absolute           | Relative |
| < 1"       | 19,206   | 11        | 11                 | 93%      |
| 1"         | 1,016    | 37        | 55                 | 147%     |
| 1.5"       | 682      | 94        | 150                | 160%     |
| 2"         | 500      | 170       | 217                | 127%     |
| > 2"       | 95       | 476       | 682                | 143%     |

| Customer Type    | CY 2015  |           |                    |          |
|------------------|----------|-----------|--------------------|----------|
|                  | # meters | Avg Use   | Standard Deviation |          |
|                  |          | per Month | Absolute           | Relative |
| Residential - SF | 18,997   | 11.47     | 13                 | 116%     |
| Residential - MF | 506      | 140.48    | 280                | 199%     |
| Irrigation       | 818      | 84.51     | 132                | 156%     |
| Agriculture      | 117      | 282.19    | 484                | 171%     |
| Comm/Ind         | 942      | 47.55     | 97                 | 205%     |
| Other            | 89       | 123.79    | 321                | 259%     |

**Demand Projections**

|   | Meters | Demand in Acre Feet |        |              |        | Increase    |   |            |  |
|---|--------|---------------------|--------|--------------|--------|-------------|---|------------|--|
|   |        | M&I                 | AG     | Construction | Total  | # of Meters | Meter%  | M&I Demand |  |
| 2007                                      | 19,929 | 17,595              | 2,438  | 465          | 20,499 |             |   |            |  |
| 2008                                      | 20,332 | 17,121              | 1,685  | 252          | 19,058 | 403         | 2.0%  | -2.7%      |  |
| A 2009                                    | 20,445 | 14,985              | 1,607  | 62           | 16,655 | 113         | 0.6%  | -12.5%     |  |
| c 2010                                    | 20,459 | 13,250              | 1,176  | 41           | 14,466 | 14          | 0.1%  | -11.6%     |  |
| t 2011                                    | 20,622 | 13,532              | 1,062  | 40           | 14,634 | 163         | 0.8%  | 2.1%       |  |
| u 2012                                    | 20,828 | 14,109              | 1,342  | 38           | 15,489 | 206         | 1.0%  | 4.3%       |  |
| a 2013                                    | 21,080 | 14,399              | 1,535  | 50           | 15,984 | 252         | 1.2%  | 2.1%       |  |
| l 2014                                    | 21,273 | 14,994              | 1,455  | 74           | 16,522 | 193         | 0.9%  | 4.1%       |  |
| 2015                                      | 21,340 | 11,398              | 991    | 37           | 12,426 | 67          | 0.3%  | -24.0%     |  |
| 2016                                      | 21,397 | 12,236              | 909    | 145          | 13,290 | 57          | 0.3%  | 7.4%       |  |
| P<br>r<br>o<br>j<br>e<br>c<br>t<br>e<br>d | 2017   | 21,460              | 12,600 | 900          | 100    | 13,600      | <i>assumptions: 3% increase in M&amp;I - 0.3% growth, 2.7% behavior;<br/>1% decline in Ag; 30% decrease in construction water</i> |            |  |
|   | 2018   | 21,530              | 13,000 | 900          | 100    | 14,000      | <i>assumptions: 3% increase in M&amp;I - 0.3% growth, 2.7% behavior;<br/>Ag and construction flat</i>                             |            |  |
|   | 2019   | 21,610              | 13,400 | 900          | 100    | 14,400      | <i>assumptions: 3% increase in M&amp;I - 0.3% growth, 2.7% behavior;<br/>Ag and construction flat</i>                             |            |  |
|   | 2020   | 21,700              | 13,800 | 900          | 100    | 14,800      | <i>assumptions: 3% increase in M&amp;I - 0.3% growth, 2.7% behavior;<br/>Ag and construction flat</i>                             |            |  |
|   | 2021   | 21,800              | 14,200 | 900          | 100    | 15,200      | <i>assumptions: 3% increase in M&amp;I - 0.3% growth, 2.7% behavior;<br/>Ag and construction flat</i>                             |            |  |



**Cost Considerations**

The District reviewed the allocation of all costs to be recovered through water charges (RTS and commodity) in the 2016 B&V COSS in order to plan and set the focus for this Study. Supply is the biggest cost, making up 78% of all recoverable cost according to B&V's study. Supply also now has three distinct sources and a different price associated with each source.

|                   | Costs in Millions |             |
|-------------------|-------------------|-------------|
| Supply            | \$ 19.5           | 78%         |
| O&M - base        | 1.4               | 6%          |
| O&M - peaking     | 1.6               | 6%          |
| Conservation      | 0.6               | 2%          |
| Capital - base    | 0.6               | 2%          |
| Capital - peaking | 1.4               | 6%          |
|                   | <u>\$ 25.1</u>    | <u>100%</u> |

Prior Cost of Service Studies have focused on peaking to distinguish tier breaks and cost differential between tiers. Since costs allocated to peaking last study made up only 12% of recoverable costs, and supply, with a varying cost, made up 78%, the focus of this Study, for establishes tiers and differentiating price at each tier, will be supply cost.

**Supply Tranches**

**Tranche 1**

With supply cost as the focus of the study, supply sources are designated into tranches for pricing and analysis. The first tranche is made up of raw water purchased from the San Diego County Water Authority (CWA) and treated and delivered by Olivenhain Municipal Water District pursuant to a treatment agreement (OMWD). OMWD charges 80% of the current CWA treatment charge, making Tranche 1 the lowest cost water. The District attempts to base-load OMWD water and maximize deliveries making Tranche 1 a natural first tier of use.

**Tranche 3**

Tranche 3 is made up of water delivered pursuant to a purchase commitment agreement with CWA for desalinated water produced at the Carlsbad Desalination Plant. The take-or-pay contract is for 3,500 of the 48,000 acre feet of CWA's take-or-pay agreement with Poseidon Resources Ltd. The District pays full recovery for the commitment amount, and shares in favorable variable-cost-recovery pricing for the District's prorate share of amounts delivered in excess of the 48KAF take-or-pay amount. Annual deliveries are estimated at 87% of the plant's capacity, or 56KAF. Therefore, the District's share of the excess water is estimated at 583AF  $[3,500 \div 48,000 \times (56,000 - 48,000)]$ . Full recovery for the first 3,500AF is almost twice the cost of imported water from CWA, but it provides the District with a drought-proof water supply, not subject to cutbacks from CWA or the Metropolitan Water District. If District water use remained low, and reliability and supply source diversification were not an issue, the District would not have sought this higher cost water, supporting the cost of desal water being assigned to the highest usage.

**Tranche 2**

The projected demand remaining after allocating OMWD to Tranche 1 and desal to Tranche 3, makes up Tranche 2 water from CWA.

|                  | <u>Projected 2018 Cost</u> |               | <u>Projected</u> | <u>Extended</u>     |
|------------------|----------------------------|---------------|------------------|---------------------|
|                  | <u>per Unit</u>            | <u>per AF</u> | <u>AF Demand</u> | <u>Cost</u>         |
| <b>Tranche 3</b> |                            |               |                  |                     |
| Desal            | \$ 5.51                    | \$ 2,401      | 3,854            | \$ 9,252,005        |
| <b>Tranche 2</b> |                            |               |                  |                     |
| SDCWA            | 3.13                       | 1,362         | 6,306            | 8,590,589           |
| <b>Tranche 1</b> |                            |               |                  |                     |
| Treated by OMWD  | 2.96                       | 1,291         | 3,840            | 4,958,892           |
| <b>TOTAL</b>     |                            |               | <b>14,000</b>    | <b>\$22,801,486</b> |

*Price per Acre Foot (AF) includes unbilled water*

After distributing the above tranches to tiers by customer class in the following section, Tier Development, the resulting Tier 2 threshold was very low. An alternative tier structure was accepted by the Board, with Tier 1 capturing Tranche 1 supply, and Tier 2 set to the average maximum use per customer class. Desal water was spread among Tiers 2 and 3 resulting in the following revised tranches.



**Supply Tranches**

|                   | 2018 Cost      |        | Projected<br>AF Demand | Extended<br>Cost    |
|-------------------|----------------|--------|------------------------|---------------------|
|                   | per Unit       | per AF |                        |                     |
| <b>Tranche 3</b>  |                |        |                        |                     |
| Desal - excess    | \$ 1.79        | \$ 779 | 550                    | \$ 428,505          |
| Desal - committed | 6.13           | 2,671  | 1,494                  | 3,989,803           |
| Desal             | <b>\$ 4.96</b> | 2,162  | 2,044                  | 4,418,308           |
| <b>Tranche 2</b>  |                |        |                        |                     |
| Desal - committed | 6.13           | 2,671  | 1,810                  | 4,833,697           |
| SDCWA             | 3.13           | 1,362  | 6,306                  | 8,590,589           |
| SDCWA & Desal     | <b>\$ 3.80</b> | 1,654  | 8,116                  | 13,424,286          |
| <b>Tranche 1</b>  |                |        |                        |                     |
| Treated by OMWD   | <b>\$ 2.96</b> | 1,291  | 3,840                  | 4,958,892           |
| <b>TOTAL</b>      |                |        | <b>14,000</b>          | <b>\$22,801,486</b> |

Price per Acre Foot (AF) includes unbilled water

**Tranche Costing**

| <u>Tranche 1</u>                    | 2018 Projected per AF Charge |          |                 |
|-------------------------------------|------------------------------|----------|-----------------|
|                                     | SDCWA                        | Discount | OMWD            |
| Supply                              | \$ 833                       |          | \$ 833          |
| Transportation                      | 118                          |          | 118             |
| Treatment                           | 335                          | \$ (67)  | 268             |
|                                     | <u>\$ 1,286</u>              |          | <u>\$ 1,219</u> |
| Projected Acre Feet of Production   |                              |          | 4,068           |
| Total Cost of Tranche 1             |                              |          | \$4,958,892     |
| Projected Acre Feet of Demand       |                              |          |                 |
| Production                          |                              | 4,068    |                 |
| Unbilled Water at 5.6%              |                              | (228)    | 3,840           |
| Supply Cost per Acre Foot Delivered |                              |          | <u>\$ 1,291</u> |

| <u>Tranche 2</u>   | Demand       | Unbilled   | Projected<br>Production | Projected<br>2018 Cost/AF | Extended<br>Cost |
|--------------------|--------------|------------|-------------------------|---------------------------|------------------|
|                    | In AF        | Water      |                         |                           |                  |
| SDCWA Demand       | 6,306        | 374        | 6,680                   | \$ 1,286                  | \$ 8,590,480     |
| Desal Demand       | 1,810        | 107        | 1,917                   | 2,521                     | 4,832,757        |
| Total              | <u>8,116</u> | <u>481</u> | <u>8,597</u>            |                           | \$13,423,237     |
| Demand             |              |            |                         | ÷                         | 8,116            |
| Cost per Acre Foot |              |            |                         |                           | <u>\$ 1,654</u>  |

| <u>Tranche 3</u>   | Demand       | Unbilled   | Projected<br>Production | Projected<br>2018 Cost/AF | Extended<br>Cost |
|--------------------|--------------|------------|-------------------------|---------------------------|------------------|
|                    | In AF        | Water      |                         |                           |                  |
| Desal Committed    | 1,494        | 89         | 1,583                   | \$ 2,521                  | \$ 3,990,743     |
| Desal Excess       | 550          | 33         | 583                     | 735                       | 428,505          |
| Total              | <u>2,044</u> | <u>122</u> | <u>2,166</u>            |                           | \$ 4,419,248     |
| Demand             |              |            |                         | ÷                         | 2,044            |
| Cost per Acre Foot |              |            |                         |                           | <u>\$ 2,162</u>  |

**Tier Development**

In order to distribute supply within each tranche to tiers for each customer class, billing data from 2013 through 2016 was analyzed to find average minimum use, average use, and average maximum use within each customer class. The minimums, averages, and maximums were then entered into a Consumptive Use model containing every invoice billed in 2016 and adjusted to achieve demands similar to demands projected for 2018. The amounts captured within each tier are noted below. The objective is to determine what tier limit will capture the amount of supply within each tranche.

| Meter size   | 2013 through 2016 (averages in units, use captured in acre feet) |              |             |              |                 |               |
|--------------|--|--------------|-------------|--------------|-----------------|---------------|
|              | Average Min Use  | Use Captured | Average Use | Use Captured | Average Max Use | Use Captured  |
| < 1"         | 6  | 2,922        | 13          | 4,989        | 21              | 5,953         |
| 1"           | 16   | 346          | 45          | 688          | 78              | 854           |
| 1.5"         | 43   | 575          | 117         | 1,047        | 196             | 1,271         |
| 2"           | 85   | 829          | 201         | 1,527        | 335             | 1,939         |
| > 2"         | 430  | 539          | 778         | 829          | 1,190           | 1,041         |
| <b>TOTAL</b> |  | <b>5,211</b> |             | <b>9,080</b> |                 | <b>11,058</b> |

*Multi-Family is currently Included in the above meter sizes*

Since average minimum use captured an amount closest to the Tranche 1 supply of 3,840AF, iterations of potential Tier 1 limits starting with minimum use amounts were entered in the Consumptive Use Model, until the Tranche 1 supply amount was captured. The same procedure was performed with average use numbers to capture Tranche 2 supply with the results presented in the Table below.

| Meter size   | Tier 1 |              | Tier 2 |              | Tier 3       |
|--------------|--------|--------------|--------|--------------|--------------|
|              | Limit  | Use in AF    | Limit  | Use in AF    | Use in AF    |
| < 1"         | 4      | 2,023        | 14     | 3,147        | 1,506        |
| 1"           | 12     | 271          | 45     | 416          | 368          |
| 1.5"         | 32     | 457          | 118    | 592          | 511          |
| 2"           | 64     | 667          | 202    | 862          | 903          |
| > 2"         | 324    | 422          | 768    | 389          | 467          |
| AG           |        | -            |        | 900          | -            |
| Construction |        | -            |        | -            | 100          |
| <b>TOTAL</b> |        | <b>3,840</b> |        | <b>6,306</b> | <b>3,855</b> |

*Multi-Family is currently Included in the above meter sizes*

When these tranches were spread across customer usage to tiers, the result was a very low threshold for the expensive Tranche 3 water. To consider an alternative approach, average maximum use was entered into the Consumptive Use Model to establish the Tier 2 limit resulting in 1,800 of acre feet of desal supply shifting from Tranche 3 to Tranche 2. The resulting revised tiers and tranches are shown in the tables below.

**Tier Development**

| Meter size   | Tier 1 |              | Tier 2 |              | Tier 3       |
|--------------|--------|--------------|--------|--------------|--------------|
|              | Limit  | Use in AF    | Limit  | Use in AF    | Use in AF    |
| < 1"         | 4      | 2,023        | 21     | 3,930        | 723          |
| 1"           | 12     | 271          | 78     | 582          | 201          |
| 1.5"         | 32     | 457          | 196    | 814          | 289          |
| 2"           | 64     | 667          | 335    | 1,272        | 493          |
| > 2"         | 324    | 422          | 1,190  | 618          | 238          |
| AG           |        | -            |        | 900          | -            |
| Construction |        | -            |        | -            | 100          |
| <b>TOTAL</b> |        | <b>3,840</b> |        | <b>8,116</b> | <b>2,044</b> |

Multi-Family is currently Included in the above meter sizes

|                   | 2018 Cost      |        | Projected AF Demand | Extended Cost       |
|-------------------|----------------|--------|---------------------|---------------------|
|                   | per Unit       | per AF |                     |                     |
| <b>Tranche 3</b>  |                |        |                     |                     |
| Desal - excess    | \$ 1.79        | \$ 779 | 550                 | \$ 428,505          |
| Desal - committed | 6.13           | 2,671  | 1,494               | 3,989,803           |
| Desal             | <b>\$ 4.96</b> | 2,162  | 2,044               | 4,418,308           |
| <b>Tranche 2</b>  |                |        |                     |                     |
| Desal - committed | 6.13           | 2,671  | 1,810               | 4,833,697           |
| SDCWA             | 3.13           | 1,362  | 6,306               | 8,590,589           |
| SDCWA & Desal     | <b>\$ 3.80</b> | 1,654  | 8,116               | 13,424,286          |
| <b>Tranche 1</b>  |                |        |                     |                     |
| Treated by OMWD   | <b>\$ 2.96</b> | 1,291  | 3,840               | 4,958,892           |
| <b>TOTAL</b>      |                |        | <b>14,000</b>       | <b>\$22,801,486</b> |

Price per Acre Foot (AF) includes unbilled water

The District's Board considered the two tier structures resulting from analyses in this Study, compared to current tier breaks for meters less than 1" and consented to continue the Study with the Tier 2 limit set at maximum average use and desal spread between Tranches 2 and 3.

| 3/4" Meter | Current    |            | All Desal in Tier 3 |                | Desal Tier 2 & 3 Split |                |
|------------|------------|------------|---------------------|----------------|------------------------|----------------|
|            | Tier Limit | Total Rate | Tier Limit          | Wholesale Cost | Tier Limit             | Wholesale Cost |
| Tier 1     | 5          | \$ 3.08    | 4                   | \$ 2.96        | 4                      | \$ 2.96        |
| Tier 2     | 17         | 4.12       | 14                  | 3.13           | 21                     | 3.80           |
| Tier 3     | 36         | 5.33       |                     | 5.51           |                        | 4.96           |
| Tier 4     |            | 7.41       |                     |                |                        |                |

### **Revenue Requirement**

The total amount of costs necessary to be recovered from user charges is known as the revenue requirement. This includes the cost of water, operating costs, administrative costs, capital replacement, and targeted adjustments to reserve levels. The revenue requirement is determined from the budget and projections for years subsequent to the budget. The final Cost of Service and Rate Structure Study Report and the Rate Model will include the revenue requirement by fiscal years and calendar years. The ready-to-serve charge is effective for each fiscal year while commodity charges become effective for each calendar year. This file which documents the process includes only the budgeted fiscal year for illustrative purposes. The revenue requirement is detailed in the Cost Allocation Section as "Total Costs to Recover."

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| Cost Allocation  |                     |                    |                     |                  |                    |                     |                    |                  |
|--|---------------------|--------------------|---------------------|------------------|--------------------|---------------------|--------------------|------------------|
|  | Projected           |                    | Ready-to-Serve      |                  | Commodity          |                     |                    | Fire             |
|  | 2018                | Offset             | Meters              | Bill             | Tier1              | Tier2               | Tier3              | Protection       |
| <b>Water Costs</b>   |                     |                    |                     |                  |                    |                     |                    |                  |
| Projected AF demand  | 14,000              |                    |                     |                  | 3,840              | 8,116               | 2,044              |                  |
| Projected AF production  | 14,831              |                    |                     |                  |                    |                     |                    |                  |
| OMWD   | 4,068               |                    |                     |                  | 4,068              |                     |                    |                  |
| SDCWA  | 6,680               |                    |                     |                  |                    | 6,680               |                    |                  |
| Desal - committed  | 3,500               |                    |                     |                  |                    | 1,917               | 1,583              |                  |
| Desal - excess   | 583                 |                    |                     |                  |                    |                     | 583                |                  |
| <b>Cost per AF</b>   |                     |                    |                     |                  | \$ 1,219           | \$ 1,286            | \$ 2,521           |                  |
|  |                     |                    |                     |                  |                    | \$ 2,521            | \$ 735             |                  |
| <b>Water purchases</b>   |                     |                    |                     |                  | \$4,958,892        | \$ 8,590,480        | \$3,990,743        |                  |
|  |                     |                    |                     |                  |                    | \$ 4,832,757        | \$ 428,505         |                  |
| <b>Water cost</b>  | \$29,810,891        | \$ -               | \$ 7,009,514        | \$ -             | \$4,958,892        | \$13,423,237        | \$4,419,248        | \$ -             |
| <b>Operating Expenses</b>  |                     |                    |                     |                  |                    |                     |                    |                  |
| Pumping  | 566,000             | 350,000            | -                   | -                | 29,630             | 137,505             | 38,065             | 10,800           |
| Water Quality  | 173,000             | -                  | -                   | -                | 42,575             | 98,333              | 32,092             | -                |
| Water Treatment  | 394,000             | -                  | -                   | -                | 225,446            | 132,010             | 36,544             | -                |
| Tanks & Reservoirs   | 358,000             | -                  | -                   | -                | 49,110             | 227,901             | 63,089             | 17,900           |
| Transmission & Dist.   | 1,470,000           | -                  | -                   | -                | 127,779            | 592,675             | 676,046            | 73,500           |
| Services   | 198,000             | -                  | 198,000             | -                | -                  | -                   | -                  | -                |
| Meters   | 678,000             | 161,000            | 327,160             | 189,840          | -                  | -                   | -                  | -                |
| Backflow Prevention  | 76,000              | 76,000             | -                   | -                | -                  | -                   | -                  | -                |
| Customer Accounts  | 740,000             | 233,000            | -                   | 507,000          | -                  | -                   | -                  | -                |
| Equipment & Vehicles   | 317,000             | -                  | 253,599             | -                | 17,391             | 36,037              | 9,973              | -                |
| Building & Grounds   | 324,000             | -                  | 259,200             | -                | 17,775             | 36,832              | 10,193             | -                |
| Engineering  | 1,611,000           | 31,000             | 1,264,000           | -                | 86,679             | 179,614             | 49,707             | -                |
| Safety & Reg. Affairs  | 280,000             | -                  | 224,000             | -                | 15,361             | 31,830              | 8,809              | -                |
| Information Technology   | 976,000             | -                  | 780,800             | -                | 53,543             | 110,952             | 30,705             | -                |
| G&A - Conservation   | 594,000             | -                  | -                   | -                | -                  | -                   | 594,000            | -                |
| General&Admin - Other  | 2,405,000           | 96,000             | 1,847,200           | -                | 126,672            | 262,487             | 72,641             | -                |
| Capital Replacement  | 2,265,700           | 1,553,000          | 285,541             | -                | 65,595             | 304,346             | 28,609             | 28,609           |
| Reserve Target Adjustmnt   | -                   | -                  | -                   | -                | -                  | -                   | -                  | -                |
| <b>Total Costs to Recover</b>  | <b>\$43,236,591</b> | <b>\$2,500,000</b> | <b>\$12,449,014</b> | <b>\$696,840</b> | <b>\$5,816,448</b> | <b>\$15,573,759</b> | <b>\$6,069,721</b> | <b>\$130,809</b> |
| <i>For allocation Equip&amp;vehicles through G&amp;A less conservation</i> |                     |                    | <i>18.370%</i>      | <i>15.78%</i>    | <i>12.23%</i>      | <i>33.81%</i>       | <i>19.81%</i>      |                  |

**Revenue Offsets**

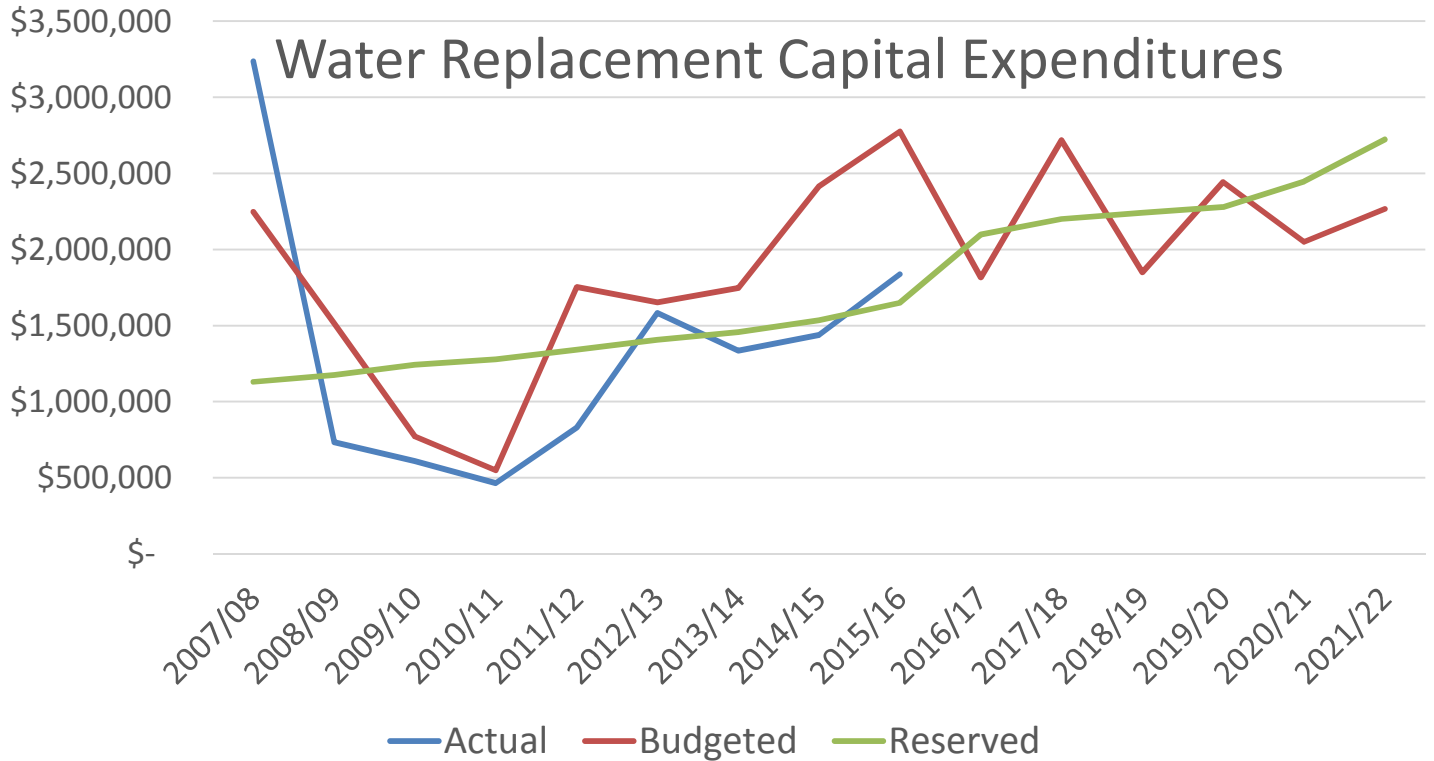
The District collects revenues and surcharges not directly related to resources required to provide service and water. These revenues are noted in the columns below and deducted from the Revenue Requirement in the Cost Allocation spreadsheet.

| EXPENSES            | Amount        |                  | Other          |                   |                 |                  |                 | Property Tax       | Investment Earnings | Total              |
|---------------------|---------------|------------------|----------------|-------------------|-----------------|------------------|-----------------|--------------------|---------------------|--------------------|
|                     | Before Offset | Pumping Charges  | Interest       | Late/Lock Charges | Backflow Fees   | Engineering Fees | Misc            |                    |                     |                    |
| Pumping             | \$ 566,000    | \$350,000        | \$ -           | \$ -              | \$ -            | \$ -             | \$ -            | \$ -               | \$ -                | \$ 350,000         |
| Meters              | 678,000       | -                | -              | 155,000           | 6,000           | -                | -               | -                  | -                   | 161,000            |
| Backflow Prevention | 76,000        | -                | -              | -                 | 76,000          | -                | -               | -                  | -                   | 76,000             |
| Customer Accounts   | 740,000       | -                | -              | 233,000           | -               | -                | -               | -                  | -                   | 233,000            |
| Engineering         | 1,611,000     | -                | -              | -                 | -               | 31,000           | -               | -                  | -                   | 31,000             |
| General & Admin.    | 2,999,000     | -                | 5,000          | -                 | -               | -                | 91,000          | -                  | -                   | 96,000             |
| Capital Replacement | 2,265,700     | -                | -              | -                 | -               | -                | -               | 1,302,000          | 251,000             | 1,553,000          |
|                     |               | <u>\$350,000</u> | <u>\$5,000</u> | <u>\$388,000</u>  | <u>\$82,000</u> | <u>\$31,000</u>  | <u>\$91,000</u> | <u>\$1,302,000</u> | <u>\$251,000</u>    | <u>\$2,500,000</u> |

*The amounts in Meters allocated to Late/Lock Charges above and to billing on the Cost Allocation spreadsheet are based on time analysis within the meter department.*

### Capital Replacement

Budgeted capital replacement is volatile. Including each budget year in each rate setting year would cause the revenue requirement to fluctuate from year to year. The five years within the capital spending plan are averaged for recovery in each rate setting year.



#### Water Replacement Capital Expenditures

| Five Year Budgeted Average |             |              |              | ←----- \$ 2,265,700 -----→ |              |              |             |             |
|----------------------------|-------------|--------------|--------------|----------------------------|--------------|--------------|-------------|-------------|
|                            | 2014/15     | 2015/16      | 2016/17      | 2017/18                    | 2018/19      | 2019/20      | 2020/21     | 2021/22     |
| Actual                     | \$1,437,419 | \$ 1,836,866 |              |                            |              |              |             |             |
| Budgeted                   | \$2,415,100 | \$ 2,775,180 | \$ 1,815,800 | \$ 2,718,600               | \$ 1,851,000 | \$ 2,443,200 | \$2,050,000 | \$2,265,700 |
| Reserved                   | \$1,534,757 | \$ 1,650,526 | \$ 2,098,729 | \$ 2,201,845               | \$ 2,241,890 | \$ 2,279,220 | \$2,446,874 | \$2,723,619 |

The nature of replacements fluctuates from year to year. To smooth these fluctuations, each year's capital replacement is allocated to tiers based on book value of the components of the water system, and their nexus to peak demands. System costs associated with fire protection are allocated 5% based on the 5% requirement for system capacity.

| Plant Assets                | Total                | Meters              | Commodity           |                     |                     | Fire               |
|-----------------------------|----------------------|---------------------|---------------------|---------------------|---------------------|--------------------|
|                             |                      |                     | Tier1               | Tier2               | Tier3               | Protection         |
| Pumping                     | \$ 7,364,983         | \$ -                | \$ 1,010,329        | \$ 4,688,511        | \$ 1,297,894        | \$ 368,249         |
| Water Treatment             | 95,357               | -                   | 13,769              | 63,899              | 17,689              | -                  |
| Tanks & Reservoirs          | 54,313,776           | -                   | 7,450,764           | 34,575,878          | 9,571,445           | 2,715,689          |
| Transmission & Distribution | 50,658,198           | -                   | 4,403,464           | 20,424,372          | 23,297,452          | 2,532,910          |
| Services                    | 13,438,304           | 13,438,304          | -                   | -                   | -                   | -                  |
| Meters                      | 5,067,418            | 5,067,418           | -                   | -                   | -                   | -                  |
| General Plant               | 8,987,362            | 8,987,362           | -                   | -                   | -                   | -                  |
|                             | <u>\$139,925,398</u> | <u>\$27,493,084</u> | <u>\$12,878,326</u> | <u>\$59,752,660</u> | <u>\$34,184,480</u> | <u>\$5,616,848</u> |
| Allocation Percent          | 100.00%              | 19.65%              | 9.20%               | 42.70%              | 24.43%              | 4.01%              |

**Peaking Factors**

| Master Plan          | Factor |
|----------------------|--------|
| Average Daily Demand | 1.0    |
| Maximum Day Demand   | 1.9    |
| Maximum Hour Demand  | 3.0    |

Certain water system facilities are designed to meet maximum daily flows and some designed to meet maximum hourly flows. District peaking factors determined for the District's Master Plan are used to formulate allocation percentages along with demand per tier.

|   | Allocation |               |               |               |
|---|------------|---------------|---------------|---------------|
|   | Total      | Tier1         | Tier2         | Tier3         |
| Water Demand in Acre Feet   | 14,000     | 3,840         | 7,958         | 2,202         |
| Water Demand Percent  | 100.00%    | 27.43%        | 56.84%        | 15.73%        |
| Facilities designed to meet max day demands<br><i>E.g., Storage, treatment, pumping</i>   |            |               |               |               |
| Base = $(1.0/1.9) \times 100 =$   | 52.63%     | 14.44%        | 29.91%        | 8.28%         |
| Max Day = $(1.9 - 1.0)/1.9 \times 100 =$  | 47.37%     | -             | 37.10%        | 10.27%        |
|   |            | <u>14.44%</u> | <u>67.01%</u> | <u>18.55%</u> |
| Facilities designed to meet max day demands<br><i>E.g., Transmission and distribution</i> |            |               |               |               |
| Base = $(1.0/3.0) \times 100 =$   | 33.33%     | 9.15%         | 18.94%        | 5.24%         |
| Max Day = $(1.9 - 1.0)/3.0 \times 100 =$  | 30.00%     | -             | 23.50%        | 6.50%         |
| Max Hour = $(3.0 - 1.9)/3.0 \times 100 =$   | 36.67%     | -             | -             | 36.67%        |
|   |            | <u>9.15%</u>  | <u>42.44%</u> | <u>48.41%</u> |

*Per VWD Master Plan: Maximum Day Demand Factor is 1.9 times Average Daily Demand  
Maximum Hourly Demand is 3 times Average Daily Demand*



**Distribution of Revenue Requirement**

The first row of costs are referenced from the Cost Allocation spreadsheet and divided by billing units to establish rates.

| <i>Projected</i>         | Ready-to-Serve          |                   | Commodity     |               |               | Fire              |
|--------------------------|-------------------------|-------------------|---------------|---------------|---------------|-------------------|
|                          | Meters                  | Bill              | Tier1         | Tier2         | Tier3         | Protection        |
| 2018 Costs to Recover    | \$12,449,014            | \$ 696,840        | \$ 5,816,448  | \$15,573,759  | \$ 6,069,721  | \$ 130,809        |
| <i>Billing Unit (BU)</i> | <i>Meter equiv (ME)</i> | <i># of bills</i> | <i>100 cf</i> | <i>100 cf</i> | <i>100 cf</i> | <i>Diameter "</i> |
| Projected 2018 BUs       | 391,267                 | 258,396           | 1,672,704     | 3,535,330     | 890,366       | 38,148            |
| Unit Cost                | \$ 31.82                | \$ 2.70           | \$ 3.48       | \$ 4.41       | \$ 6.82       | \$ 3.43           |
| Wholesale passthrough    | 17.91                   | -                 | 2.96          | 3.80          | 4.96          | -                 |
| VWD portion amount       | \$ 13.91                | \$ 2.70           | \$ 0.52       | \$ 0.61       | \$ 1.86       | \$ 3.43           |
| VWD portion percent      | 43.7%                   | 100.0%            | 14.8%         | 13.9%         | 27.2%         | 100.0%            |

Multiples are used to calculate meter equivalents - the base 3/4" meter being 1 meter equivalent with larger meters having more than 1 equivalent. An analysis of meter costs, and repair and maintenance costs was performed in order to determine the equivalent amounts. E.g., it takes 10 times more resources to replace, service, and maintain a 3" meter than it does for a 3/4" meter. For costs associated with billing, the effort is the same regardless of the meter size so only one unit of cost is applied to each account.

| <u>Ready-to-Serve Charge Calculation</u> |                  | Meter                | <u>Projected 2018 Ready-to-Serve</u> |                |          |
|--|------------------|----------------------|--------------------------------------|----------------|----------|
| Meter size                               | Meter Equivalent | Equivalent Unit Cost | Meter Cost                           | Bill Unit Cost | Total    |
| 5/8"                                     | 1.0              | \$ 31.82             | \$ 31.82                             | \$ 2.70        | \$ 34.52 |
| 3/4"                                     | 1.0              | 31.82                | 31.82                                | 2.70           | 34.52    |
| 1"                                       | 1.5              | 31.82                | 47.73                                | 2.70           | 50.43    |
| 1.5"                                     | 4.0              | 31.82                | 127.28                               | 2.70           | 129.98   |
| 2"                                       | 6.5              | 31.82                | 206.83                               | 2.70           | 209.53   |
| 3"                                       | 10.0             | 31.82                | 318.20                               | 2.70           | 320.90   |
| 4"                                       | 15.0             | 31.82                | 477.30                               | 2.70           | 480.00   |
| 6"                                       | 30.0             | 31.82                | 954.60                               | 2.70           | 957.30   |
| 10"                                      | 70.0             | 31.82                | 2,227.40                             | 2.70           | 2,230.10 |
| multi                                    | 0.3              | 31.82                | 9.55                                 |                | 9.55     |

"Multi" refers to costs associated with higher than average flows for meters serving multiple dwelling units, and is assessed on each additional dwelling unit.

**Units of Service**

| Meter Size   | Active Meters | FY 2018              | Meter Equivalent |               | Annual         |
|--------------|---------------|----------------------|------------------|---------------|----------------|
|              | December 2016 | Projected Avg Meters | Per              | Total         | (X 12)         |
| < 1"         | 19,149        | 19,162               | 1.0              | 19,162        | 229,944        |
| 1"           | 1,024         | 1,054                | 1.5              | 1,581         | 18,972         |
| 1.5"         | 689           | 699                  | 4.0              | 2,796         | 33,552         |
| 2"           | 511           | 521                  | 6.5              | 3,387         | 40,638         |
| 3"           | 63            | 64                   | 10.0             | 640           | 7,680          |
| 4"           | 17            | 17                   | 15.0             | 255           | 3,060          |
| 6"           | 15            | 15                   | 30.0             | 450           | 5,400          |
| 10"          | 1             | 1                    | 70.0             | 70            | 840            |
| <b>Total</b> | <b>21,469</b> | <b>21,533</b>        |                  | <b>28,341</b> | <b>340,086</b> |
| addl unit    | 14,174        | 14,217               | 0.3              | 4,265         | 51,181         |
|              |               |                      |                  | <b>32,606</b> | <b>391,267</b> |
| Fire lines   | 486           |                      |                  |               |                |
| inches       | 3,169         | 3,179                |                  |               |                |

*Projection is based on historical trends and the assumed 0.3% annual growth.*

*Units of service for commodity within tiers are determined in acre feet in the Cost Allocation spreadsheet and converted to units (HCFs) in the Distribution spreadsheet.*

**Rates**

| Meter Size              | RTS Charge | Commodity Rates         |         |            |           |
|-------------------------|------------|-------------------------|---------|------------|-----------|
|                         |            | Tier 1                  | Tier 2  | Tier 3     |           |
| 5/8"                    | \$ 34.52   | \$ 3.48                 | 4.41    | 6.82       |           |
| 3/4"                    | 34.52      |                         |         |            |           |
| 1"                      | 50.43      |                         |         |            |           |
| 1.5"                    | 129.98     |                         |         |            |           |
| 2"                      | 209.53     |                         |         |            |           |
| 3"                      | 320.90     |                         |         |            |           |
| 4"                      | 480.00     |                         |         |            |           |
| 6"                      | 957.30     |                         |         |            |           |
| 10"                     | 2,230.10   |                         |         |            |           |
| multi                   | 9.55       |                         |         |            |           |
| Fire Line per diameter" | 3.43       |                         |         |            |           |
|                         |            | Tier Structure in Units |         |            |           |
|                         |            | Meter Size              | Tier 1  | Tier 2     | Tier 3    |
|                         |            | <1"                     | 1 - 4   | 5 - 21     | 22 & up   |
|                         |            | 1"                      | 1 - 12  | 13 - 78    | 79 & up   |
|                         |            | 1.5"                    | 1 - 32  | 33 - 196   | 197 & up  |
|                         |            | 2"                      | 1 - 64  | 65 - 335   | 336 & up  |
|                         |            | >2"                     | 1 - 324 | 325 - 1190 | 1191 & up |
|                         |            | Certified Ag            |         | 1 and up   |           |
|                         |            | Temporary Construction  |         |            | 1 and up  |

*Certified agricultural customers that participate in SDCWA's TSAWR program do not have access to diverse supplies other than MWD water. Not subjecting ag to the higher tier is consistent to SDCWA's program. Details will be addressed in the final report and Ordinance. Since OMWD supply is limited and Ag benefits by not having the higher cost desal assigned to its customer class, OMWD water is not allocated to Ag.*

**DATE: MARCH 15, 2017**  
**TO: BOARD OF DIRECTORS**  
**SUBJECT: RESOLUTION CONCURRING IN NOMINATION TO THE EXECUTIVE COMMITTEE OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES/JOINT POWERS INSURANCE AUTHORITY (ACWA/JPIA)**

**DISCUSSION:**

San Bernardino Valley Water Conservation District is requesting Vallecitos Water District concur in the nomination of Melody McDonald to the Executive Committee of the ACWA/JPIA. Mrs. McDonald currently serves on the ACWA/JPIA Executive Committee, Personnel Committee, Chairs the Liability Program Subcommittee, served on the Building & Property Ad Hoc Committee, and was past chair of the Property & Workers Compensation Program Subcommittees.

In order for a nomination to be made, a resolution in support of the nomination is required from three agencies.

**RECOMMENDATION:**

Request Board direction.



# SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT

Established 1932

1630 West Redlands Boulevard, Suite A  
Redlands, CA 92373-8032  
(909) 793-2503  
Fax: (909) 793-0188

Email: [info@sbtvcd.org](mailto:info@sbtvcd.org)  
[www.sbtvcd.org](http://www.sbtvcd.org)

January 31, 2017

Hal Martin  
Vallecitos Water District  
201 Vallecitos de Oro  
San Marcos, CA 92069-1453

Dear Hal Martin,

The Board of Directors of the San Bernardino Valley Water Conservation District has nominated its Vice-President, Melody A. McDonald, to continue in her position on the ACWA/JPIA Executive Committee. Enclosed is a certified copy of SBVWCD Resolution No. 542 nominating Mrs. McDonald for ACWA/JPIA Executive Committee.

Melody currently serves on the ACWA/JPIA Executive Committee, Personnel Committee, Chairs the Liability Program Subcommittee, served on the Building & Property Ad Hoc Committee, and was past chair of the Property & Workers Compensation Program Subcommittees. Melody has an institutional knowledge of all of JPIA's programs, their history, how coverage's evolved for the JPIA membership and has helped the organization grow to 188 Million in assets. Melody participates in training at various JPIA members facilities; she has personally visited and presented rate stabilization fund refund checks back to JPIA members totaling over 25 Million, since the inception of the fund. This year, JPIA has held nearly 400 training classes resulting in more than 7,700 employees receiving training. Melody believes the best claim is the one that never happened, and that there is a direct correlation between risk management, training, and minimizing losses. She pursues all her duties with a strong sense of commitment and dedication. Enclosed is her Statement of Qualifications.

The District respectfully requests your organization consider adopting a concurring resolution of nomination in support of Mrs. McDonald. Enclosed is a sample concurring resolution for your consideration in support of her nomination or it can be found at <http://www.acwajpia.com/ElectionNews.aspx>. Since time is of the essence, and that this will require Board action, please include this on your agenda for your next Board meeting. Please send a certified copy to:


**ACWA/JPIA**  
Attention: Sylvia Robinson  
P.O. Box 619082  
Roseville, CA 95661-9082

**and**

**San Bernardino Valley Water Conservation District**  
Attention: Athena Monge  
1630 W. Redlands Blvd. Ste "A"  
Redlands, CA 92374

**This resolution must be received by ACWA/JPIA no later than 4:30 pm Friday March 24, 2017.**

Sincerely,

  
Daniel B. Cozad  
General Manager

BOARD  
OF  
DIRECTORS

Division 1:  
Richard Corneille  
Division 2:  
David E. Raley

Division 3:  
T. Milford Harrison  
Division 4:  
John Longville

Division 5:  
Melody McDonald

GENERAL  
MANAGER

Daniel B. Cozad

**RESOLUTION NO. 542**

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT  
NOMINATING ITS ACWA/JPIA BOARD  
MEMBER TO THE EXECUTIVE COMMITTEE  
OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES  
JOINT POWERS INSURANCE AUTHORITY ("ACWA/JPIA")**

**WHEREAS**, this District is a member district of the ACWA/JPIA that participates in all four of its Programs: Liability, Property, and Workers' Compensation; and Employee Benefits; and

**WHEREAS**, the Bylaws of the ACWA/JPIA provide that in order for a nomination to be made to ACWA/JPIA's **Executive Committee**, the member district must place into nomination its member of the ACWA/JPIA Board of Directors for such open position;

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Directors of the San Bernardino Valley Water Conservation District that its member of the ACWA/JPIA Board of Directors, Melody McDonald, be nominated as a candidate for the **Executive Committee** for the election to be held on May 8, 2017.

**BE IT FURTHER RESOLVED** that the ACWA/JPIA staff is hereby requested, upon receipt of the formal concurrence of five other member districts to effect such nomination.

**BE IT FURTHER RESOLVED** that the District Secretary is hereby directed to transmit a certified copy of this resolution to the ACWA/JPIA at P.O. Box 619082, Roseville, California 95661-9082, forthwith.

**ADOPTED** this 11th day of January, 2017.

  
\_\_\_\_\_  
President, Board of Directors

ATTEST:  
  
\_\_\_\_\_  
Secretary



[Melody.sbvwd@gmail.com](mailto:Melody.sbvwd@gmail.com)

**Melody  
Henriques-McDonald**

P.O. BOX 30197  
SAN BERNARDINO, CA 92413

*(909) 793-2503 District  
(909) 499-5175 cell  
(909) 383-1122 fax*

Like @ <https://www.facebook.com/Melody4Water>

**Candidate for:**

**ACWA JPIA  
EXECUTIVE COMMITTEE  
(Incumbent)**



*Melody & Board receiving, District of Distinction Award, the highest governance and best practices accreditation possible.*

Left, Kathleen Tiegs, Special Districts Board Member & ACWA Vice-President presenting.

**ASSOCIATIONS**

Member, Board of Directors of the San Bernardino Valley Water Conservation District (Elected), Past President, & currently Vice-President, 1991 originally appointed, and first woman on the board

Member, Executive Committee ACWA/JPIA

Chair, JPIA Liability Program Committee

Director, ACWA/Joint Powers Insurance Authority

Voting Member, Association of the San Bernardino County Special Districts

*Over the 25 + Years, Experience in the Water Industry includes:*

Past Member, (CWA) California Women for Agriculture

Past Member, ACWA Water Management Committee

Past Member, ACWA State Legislative Committee

Chair & Vice-Chair, JPIA Property & Workers Compensation Programs

Member, Board of Directors ACWA, Region 9 Chair

Chair, Water Management Certification Subcommittee

Chair, California Water Quality Control Board, Santa Ana Region  
8 Years of service, Gubernatorial Appointment

**CURRENT EMPLOYMENT**

Southwest Lift & Equipment, Inc. (Heavy Duty Vehicle Lifts)  
Broker/Associate, Century 21 Lois Lauer Realty

**PROFESSIONAL ASSOCIATIONS & LICENSES**

Redlands Association of Realtors  
California Real Estate Broker's License  
Arizona Real Estate Broker's License

**ORGANIZATIONS AND SOCIETIES**

Highland Chamber of Commerce  
San Bernardino Chamber of Commerce  
Immanuel Baptist Church Highland, CA  
BSF International

**EDUCATION**

San Geronio High School, 1976  
Western Real Estate School, 1989  
Graduate, Special Districts Board Management Institute, 1997

**RESOLUTION NO.**

**RESOLUTION OF THE BOARD OF DIRECTORS  
OF THE VALLECITOS WATER DISTRICT  
CONCURRING IN NOMINATION TO THE EXECUTIVE COMMITTEE  
OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES  
JOINT POWERS INSURANCE AUTHORITY (“ACWA/JPIA”)**

WHEREAS, this District is a member District of the ACWA/JPIA; and

WHEREAS, the Bylaws of the ACWA/JPIA provide that in order for a nomination to be made to ACWA/JPIA’s Executive Committee, three member Districts must concur with the nominating District; and

WHEREAS, another ACWA/JPIA member District, the San Bernardino Valley Water Conservation District, has requested that this District concur in its nomination of its member of the ACWA/JPIA Board of Directors to the Executive Committee of the ACWA/JPIA.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Vallecitos Water District that this District concurs with the nomination of Melody McDonald of the San Bernardino Valley Water Conservation District to the Executive Committee of the ACWA/JPIA.

BE IT FURTHER RESOLVED that the District Secretary is hereby directed to transmit a certified copy of this Resolution to the ACWA/JPIA at P.O. Box 619082, Roseville, California 95661-9082.

PASSED AND ADOPTED by the Board of Directors of the Vallecitos Water District at a regular meeting held on this 15<sup>th</sup> day of March, 2017, by the following roll call vote:

AYES:  
NOES:  
ABSENT:  
ABSTAIN:

---

Craig Elitharp, President  
Board of Directors  
Vallecitos Water District

ATTEST:

---

Glenn Pruum, Secretary  
Board of Directors  
Vallecitos Water District





REGISTER NOW

### 4th Annual *North County Economic Summit*

Wednesday, April 12, 2017

7:30 am to 9:45 am

\*Networking begins at 7am

**California State University San Marcos**

University Student Union Ballroom

333 Twin Oaks Valley Road

Presented by:



Don't miss this jam-packed morning of insightful economic reports, video presentations and a panel discussion of the opportunities and challenges facing our regional business community.



#### The Big Picture

Presented by Mark Vitner, Managing Director & Senior Economist, Wells Fargo

Trends and Analysis of what is currently happening in the Nation, California & San Diego County – and what to expect.



#### 2017 North County Prospects Report

Presented by Josh Williams, President, BW Research Partnership

Overview of North County's dynamic industry clusters, it's evolving innovation economy, the connections between quality of life and the business community, and a special analysis on job quality, job volatility and the changing nature of employment.

Welcome Remarks by California State University San Marcos President Karen Haynes.

Special video presentation of "North County's World of Work" highlighting how the region's high schools are working with innovative businesses to prepare students for the jobs of tomorrow.

Launch of the recently produced **Technology Study** – a collaborative effort of San Diego Regional EDC, Innovate78 & San Diego North EDC.



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## HEADWATERS TOUR 2017 FIELD TRIP (NEW)



Restored Cookhouse Meadow in California's El Dorado National Forest

Sixty percent of California's developed water supply originates high in the Sierra Nevada mountains. Our water supply is largely dependent on the health of our Sierra forests, which are suffering from ecosystem degradation, drought, wildfires and widespread tree mortality. Join us as we head into the foothills and the mountains to examine water issues that happen upstream but have dramatic impacts downstream and throughout the state.

This 2-day, 1-night tour travels through the Sierra Nevada foothills, into the mountains and around the Lake Tahoe Basin to learn about upper watersheds and what role they play in water supply and quality. We will discuss meadow restoration, forest management and tree mortality, climate change, wildfire impacts and water quality. We will visit a meadow restoration site, Lake Tahoe, El Dorado National Forest, and the Yuba and American rivers.