

**DESERT WATER AGENCY**  
**MAY 17, 2016**



**BOARD OF DIRECTORS**  
**REGULAR MEETING AGENDA**

**REGULAR MEETING 8:00 A.M. OPERATIONS CENTER - 1200 SOUTH GENE AUTRY TRAIL – PALM SPRINGS – CALIFORNIA**

*About Desert Water Agency:*

Desert Water Agency operates independently of any other local government. Its autonomous elected board members are directly accountable to the people they serve. The Agency is one of the desert's two State Water Contractors and provides water and resource management, including recycling, for a 325-square-mile area of Western Riverside County, encompassing parts of Cathedral City, Desert Hot Springs, outlying Riverside County and Palm Springs.

- 1. PLEDGE OF ALLEGIANCE**
- 2. APPROVAL OF MINUTES –** A. April 19, 2016 CIOFFI  
B. May 6, 2016 (Special) CIOFFI
- 3. GENERAL MANAGER'S REPORT** KRAUSE
- 4. COMMITTEE REPORTS –** A. Executive – May 12, 2016 CIOFFI
- 5. PUBLIC INPUT:**  
Members of the public may comment on any item not listed on the agenda, but within the jurisdiction of the Agency. In addition, members of the public may speak on any item listed on the agenda as that item comes up for consideration. Speakers are requested to keep their comments to no more than three (3) minutes. As provided in the Brown Act, the Board is prohibited from acting on items not listed on the agenda.
- 6. SECRETARY-TREASURER'S REPORT - APRIL 2016** BLOOMER
- 7. ITEMS FOR ACTION**
  - A. Water Use Violation - Civil Penalty Hearings (s) KRAUSE
  - B. Request Award of Contract – Zone 1240 Booster JOHNSON
  - C. 2016/2017 Groundwater Replenishment Assessments KRAUSE
  - D. Request Adoption of Resolution No. 1130 Extending Services Priority Policy RIDDELL
  - E. Local Agency Formation Commission Election KRAUSE
- 8. PUBLIC INFORMATION** METZGER
  - A. Media Information
  - B. PI Activities
- 9. ITEMS FOR DISCUSSION**
  - A. State Water Project Contractors Authority & State Water Contractors Meetings – April, 2016 RIDDELL
  - B. April Water Production Comparison KRAUSE
  - C. Conservation Program Update (PowerPoint presentation) METZGER
  - D. Directors Report on ACWA Conference DIRECTORS
- 10. DIRECTORS COMMENTS AND REQUESTS**
- 11. CLOSED SESSION**
  - A. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION  
Pursuant to Government Code Section 54956.9 (d) (1)  
Name of Case: Agua Caliente Band of Cahuilla Indians vs. Coachella Valley Water District, et al
  - B. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION  
Pursuant to Government Code Section 54956.9 (d) (1)  
Name of Case: Agua Caliente Band of Cahuilla Indians vs. County of Riverside, et al
  - C. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION  
Pursuant to Government Code Section 54956.9 (d) (1)  
Name of Case: Desert Water Agency vs. U.S. Department of Interior

D. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

Pursuant to Government Code Section 54956.9 (d) (1)

Name of Case: Mission Springs Water District vs. Desert Water Agency

E. CONFERENCE WITH REAL PROPERTY NEGOTIATORS

Pursuant to Government Code Section 54956.8

Property: 1.17 acre lot North of the Northeast corner of Sunrise Way and Mesquite Avenue,

APN No. 502-560-038

Agency Negotiators: Mark S. Krause, General Manager and Steve L. Johnson, Asst. General Manager

Negotiating Parties: Chris Thomsen, New Mesquite HOA

Under Negotiation: Price and terms of possible acquisition

12. RECONVENE INTO OPEN SESSION – REPORT FROM CLOSED SESSION

13. ADJOURN

Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities, as required by Section 202 of the Americans with Disabilities Act of 1990. Any person with a disability who requires a modification or accommodation in order to participate in a meeting is asked to contact Desert Water Agency's Executive Secretary, at (760) 323-4971, at least 48 working hours prior to the meeting to enable the Agency to make reasonable arrangements. Copies of records provided to Board members which relate to any agenda item to be discussed in open session may be obtained from the Agency at the address indicated on the agenda.

**MINUTES  
OF THE REGULAR MEETING  
OF THE  
DESERT WATER AGENCY  
BOARD OF DIRECTORS**

**April 19, 2016**

DWA Board:	James Cioffi, President )	<b>Attendance</b>
	Joseph K. Stuart, Vice President )	
	Kristin Bloomer, Secretary-Treasurer )	
	Patricia G. Oygar, Director )	
	Craig A. Ewing, Director )	
DWA Staff:	Mark S. Krause, General Manager )	
	Steve Johnson, Asst. General Manager )	
	Martin S. Krieger, Finance Director )	
	Sylvia Baca, Asst. Secretary of the Board )	
	Ashley Metzger, Outreach/Conserv. Manager )	
	Irene Gaudinez, Human Resources Manager )	
Consultant:	Michael T. Riddell, Best Best & Krieger )	
	David F. Scriven, Krieger & Stewart )	
Public:	Sy Dreher, Seven Lakes HOA )	

17453. President Cioffi opened the meeting at 8:00 a.m. and asked everyone to join Director Oygar in the Pledge of Allegiance. **Pledge of Allegiance**

17454. President Cioffi called for approval of the April 5, 2016 Regular Board meeting minutes. **Approval of 04/05/16 Regular Board Mtg. Minutes**

Vice President Stuart moved for approval. After a second by Director Oygar, the minutes were approved as written.

17455. President Cioffi called upon General Manager Krause to provide an update on Agency operations. **General Manager's Report**

Mr. Krause stated on April 1 staff responded to a damaged fire service vault at 68929 Perez Rd. The vault is located next to a driveway. The business owner does not know what or how it happened. Staff notified the Cathedral City Police department and filed an incident report. Repairs have been made. **Damaged Service Vault – 68929 Perez Rd.**

Mr. Krause stated on April 7, stand-by responded to a hit fire hydrant on Avenida Caballeros, south of Tahquitz Canyon Way. Staff was informed by Palm Springs Police that this was caused by a drunk driver. The gasket and bolts were replaced and the hydrant was placed back in service.

**General Manager's Report**  
(Cont.)

Hit Fire Hydrant –  
Avenida Caballeros

Continuing his report, Mr. Krause noted on April 8 staff responded to a hit one inch backflow at 68352 Perez Rd. Authorization was given for staff to make the necessary repairs and the backflow is back in service. A police report was made and the water loss was metered.

Hit Backflow – Perez Rd.

On April 10, stand-by responded to a hit 4-inch air-vac on Highway 111, on the Snow Creek line. Staff shut the air-vac valve off; there was no water loss. The air-vac was repaired and is back in service. A police report was made.

Hit Air-Vac/Hwy 111  
Snow Creek

Continuing with his report, Mr. Krause inquired about reporting on the Legislative Adhoc Committee.

Legislative Adhoc  
Committee

Mr. Riddell stated the Brown Act does not require minutes from Committee meetings, whether Standing or Adhoc. He suggested it be left to the Board for their preference.

Director Ewing, Legislative Committee Chair stated the Committee held a conference call with Bob Reeb, Legislative Lobbyist for an update on the Agency's legislative positions. He noted that ACWA has pulled back from their position on a proposed amendment to Article X of the California Constitution.

Mr. Krause noted several meetings and activities he participated in during the past several weeks.

General Manager's  
Meetings & Activities

Mr. Krause announced that due to the majority of the Board and staff attending ACWA's Spring conference, the May 3 Board meeting will be cancelled.

May 3 Board Meeting  
Cancelled

Mr. Krause reminded everyone of the Special Board meeting to be held on June 28 at 8:00 a.m. to adopt the 2016/2017 Budget.

June 28 Special Board  
Meeting (Budget)

Concluding his report, Mr. Krause noted follow up items from the last Board meeting; 1) SB350 (Cal-ISO) was introduced by Senator De Leon, and 2) The fire hydrant in the 700 block of Tahquitz Canyon is back in service.

Follow Up Items – 1)  
SB350  
2) Tahquitz Fire  
Hydrant

17456. President Cioffi noted the minutes for the April 8, 2016 Conservation & Public Affairs Committee were provided in the Board's packet.

**Committee Reports**  
Conservation & Public  
Affairs 04/08/16

President Cioffi noted the minutes for the April 12, 2016 Executive Committee were provided in the Board's packet.

**Committee Reports:**  
(Cont.)  
Executive 04/12/16

17457. President Cioffi opened the meeting for public input.

**Public Input**

There being no one from the public wishing to address the Board, President Cioffi closed the public comment period.

17458. President Cioffi called upon Secretary-Treasurer Bloomer to provide an overview of financial activities for the month of March 2016.

**Secretary-Treasurer's  
Report – March 2016**

Secretary-Treasurer Bloomer reported that the Operating Fund received \$1,537,176 in Water Sales Revenue and \$86,040 in Reclamation Sales Revenue. \$2,041,487 was paid out in Accounts Payable. Year-to-date Water Sales are 12% over budget, Year-to-date Total Revenues are 11% over budget, and Year-to-date Total Expenses are 6% under budget. There were 22,241 active services as of March 31, 2016 compared to 22,184 as of February 29, 2016.

Operating Fund

Reporting on the General Fund, Secretary-Treasurer Bloomer stated \$41,812 was received in Property Tax Revenue. \$21,574 was received in Miscellaneous receipts from MWD for the Multi-Year Water Pool purchase reimbursement. \$1,055,708 was paid out in State Water Project charges.

General Fund

Regarding the Wastewater Fund, \$5,007 was received in Sewer Contract payments. There are a total of 75 contracts with 36 delinquent (35%). \$72,644 was paid out in Accounts Payable.

Wastewater Fund

17459. President Cioffi called upon General Manager Krause to present the civil penalty hearing for water use violations.

**Item for Action:**  
Water Use Violations –  
Civil Penalty Hearing

Mr. Krause noted there have been more than 164 violations issued and have received two hearing requests for today's meeting. He stated the first appellant is Seven Lakes Homeowners Association. He presented information on the appellant and noted the violations: 1) Irrigating between the restricted hours of 7:00 a.m. and 7:00 p.m., and 2) Runoff from irrigation onto hardscape. The fine is \$100 and the reason for appeal is the landscaper was testing the irrigation system.

Sy Dreher, representing Seven Lakes Homeowners Association, stated their irrigation technician was testing the system at the time of the violation. He stated that they have made extensive conservation efforts on the property.

Sy Dreher – Seven  
Lakes HOA

Director Ewing noted his concern with water runoff.

Responding to Vice President Stuart, Mr. Dreher stated irrigation is set according to the mandatory dates/times.

**Action Item:**  
(Cont.)  
Civil Penalty Hearings  
Seven Lakes HOA

President Cioffi made a motion to uphold the appeal and deny the penalty. After a second by Vice President Stuart, the motion passed unanimously.

Uphold Appeal/Deny  
Penalty

Mr. Krause presented information on appellant, Julie Hewett. He noted the violations: 1) Irrigation observed on a restricted day between the hours of 7:00 a.m. and 7:00 p.m., and 2) Runoff from irrigation onto hardscape. The fine amount is \$100 and the reason for appeal is landscaper was working on irrigation timer.

Julie Hewett

Ms. Hewett stated that her landscaper was testing the system due to a previous high bill.

Director Ewing expressed concern with the runoff issue.

Responding to Vice President Stuart, Ms. Hewett stated irrigation is set according to prescribed time/day and property does not have a smart controller.

President Cioffi made a motion to uphold the appeal and deny the penalty. After a second by Director Oygar, the motion passed unanimously.

Uphold Appeal/Deny  
Penalty

President Cioffi requested the appellant contact the Agency for information on the smart controller program.

17460. President Cioffi called upon General Manager Krause to discuss the 2016/2017 Groundwater Replenishment Assessments Draft Engineer's reports.

**Items for Discussion:**  
2016/2017  
Groundwater  
Replenishment  
Assessments – Draft  
Engineer's Reports

Mr. Krause introduced David Scriven, representing Krieger & Stewart, who has prepared the report. He noted the report is being presented today for discussion purposes. A final report will be presented at a public meeting on May 17, and a determination made that funds should be raised by a replenishment assessment for Board acceptance. A public hearing will be held on June 7.

Mr. Krause stated the proposed replenishment assessment rate for 2016/2017 for Whitewater, Mission Creek and Garnet Hill Subbasins is \$102 per acre-foot. The proposed rate would remain the same as 2015/2016 to allow time to comply with Proposition 218 requirements before the rate is increased. Rate increases will be considered in the upcoming Proposition 218 process scheduled for later this year. A rate increase, if approved, will not take effect until July 1, 2017.

Mr. Krause explained due to recent dramatic increases in imported water charges, that replenishment costs have risen dramatically. Delta related charges have more than doubled from less than \$100,000,000 per year in 2015 to more than \$200,000,000 projected for 2016. Conservation has reduced replenishing assessment revenue by approximately 20% or \$700,000. He noted that Agency reserves have been used to pay for these assessments.

Continuing his report, Mr. Krause said the 5-year rate increase by the Board in 2010 did not anticipate the current Delta charge increases or the current level of increased water conservation. Starting in 2017, the replenishment assessment should be gradually increased over a short number of years so it will ultimately cover each year's charges for imported water with no further shortfall accrual. He then discussed the changes from 2010 to 2016 for the estimated water production and assessments.

17461. President Cioffi asked Outreach and Conservation Manager Metzger to report on the Upcoming Outreach and Events.

**Upcoming Outreach  
and Events**

Mrs. Metzger referred to the list provided with the Board packet. She indicated there are 22 registrants for the May 13 facilities tour.

17462. President Cioffi asked General Manager Krause to report on the March Water Use Reduction Figures.

March Water Use  
Reduction Figures

Mr. Krause reported that the Agency and its customers achieved a 15 percent reduction during March 2016 compared to March 2013.

17463. Director Ewing noted his attendance at the National Water Resources Association Federal Water Issues conference held in Washington D.C. He indicated he and Secretary-Treasurer Bloomer met with staff from Senator Feinstein and Congressman Ruiz's office.

Directors Report on  
NWRA Conference  
Director Ewing  
Secretary-Treasurer  
Bloomer

Secretary-Treasurer Bloomer noted discussions on EPA issues.

17464. Regarding water use violations observed by DWA staff, Vice President Stuart recommended that staff continue to cite locations. During the penalty hearings, the Board can decide whether irrigation testing occurred and will make a determination.

**Directors  
Comments/Requests**  
 Water Use Violations

President Cioffi announced he received a letter from ACWA/JPIA commending DWA on its loss history rate.

ACWA/JPIA

17465. At 9:59 a.m., President Cioffi convened into Closed Session for the purpose of Conference with Legal Counsel, (A) Existing Litigation, pursuant to Government Code Section 54956.9 (d) (1), Agua Caliente Band of Cahuilla Indians vs. Coachella Valley Water District, et al; (B) Existing Litigation, pursuant to Government Code Section 54956.9 (d) (1), ACBCI vs. County of Riverside, et al; (C) Existing Litigation, pursuant to Government Code Section 54956.9 (d) (1), Desert Water Agency vs. U.S. Department of Interior; (D) Existing Litigation, pursuant to Government Code Section 54956.9 (d) (1), Mission Springs Water District vs. Desert Water Agency; and (E) Real Property Negotiators, pursuant to Government Code Section 54956.8, Property-APN 502-560-038, Agency Negotiators: Mark S. Krause, General Manager and Steve L. Johnson, Assistant General Manager, Negotiating Parties: Chris Thomsen, New Mesquite HOA, Under Negotiation: Price and terms of possible acquisition.

**Closed Session:**

- A. Existing Litigation – ACBCI vs. CVWD, et al
- B. Existing Litigation – ACBCI vs. Riverside County
- C. Existing Litigation – DWA vs. U.S. Dept. of Interior
- D. Existing Litigation – MSWD vs. DWA
- E. Real Property Negotiators

17466. At 11:12 a.m., President Cioffi reconvened the meeting into open session and announced there was no reportable action.

**Reconvene – No Reportable Action**

17467. In the absence of any further business, President Cioffi adjourned the meeting at 11:13 a.m.

**Adjournment**


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James Cioffi, President

ATTEST:

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Kristin Bloomer, Secretary-Treasurer



**MINUTES  
OF THE SPECIAL MEETING  
OF THE  
DESERT WATER AGENCY  
BOARD OF DIRECTORS**

**May 6, 2016**

DWA Board:	James Cioffi, President )	<b>Attendance</b>
	Kristin Bloomer, Secretary-Treasurer )	
	Craig A. Ewing, Director )	
Absent:	Joseph K. Stuart, Vice President )	
	Patricia G. Oygur, Director )	
DWA Staff:	Mark S. Krause, General Manager )	
	Steve Johnson, Asst. General Manager )	
	Martin S. Krieger, Finance Director )	
	Sylvia Baca, Asst. Secretary of the Board )	

17468. President Cioffi opened the meeting at 9:00 a.m. and asked everyone to join him in the Pledge of Allegiance. **Pledge of Allegiance**

17469. President Cioffi opened the meeting for public input.

**Public Input**

There being no one from the public wishing to address the Board, President Cioffi closed the public comment period.

17470. At 9:01 a.m., President Cioffi convened into Closed Session for the purpose of Conference with Legal Counsel, (A) Real Property Negotiators, pursuant to Government Code Section 54956.8, Property-APN 502-560-038, Agency Negotiators: Mark S. Krause, General Manager and Steve L. Johnson, Assistant General Manager, Negotiating Parties: Chris Thomsen, New Mesquite HOA, Under Negotiation: Price and terms of possible acquisition. **Closed Session:**  
A. Real Property  
Negotiators

17471. At 9:29 a.m., President Cioffi reconvened the meeting into open session and announced there was no reportable action. **Reconvene – No Reportable Action**

17472. In the absence of any further business, President Cioffi Adjournment  
adjourned the meeting at 9:30 a.m.

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James Cioffi, President

ATTEST:

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Kristin Bloomer, Secretary-Treasurer

## GENERAL MANAGER'S REPORT MAY 17, 2016

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On April 24 at approximately 12:05 p.m., stand by responded to a hit backflow at 1702 Wack Wack Plaza. Authorization was given to make the necessary repairs from the HOA president. The water loss was metered. A police report was not made; the HOA president knows the person that caused the damage and is working it out with him.



## General Manager's Meetings and Activities

### Meetings:

4/20-4/21/16 State Water Contractor's Meetings in Sacramento  
4/21/16 State and Federal Contractor's Water Authority Meeting in Sacramento  
5/2-5/5/16 ACWA Conference in Monterey  
5/11/16 San Geronio Pass Sub-Basin SGMA Planning Meeting  
5/12/16 Executive Committee Meeting  
5/17/16 Quarterly GM Meeting  
(DWA, CVWD, MSWD/2004 Settlement Agreement)

### Activities:

E-Billing  
Outreach Talking Points  
Water Rate Forum  
Draft GSA MOU for Indio Sub-basin (funding provisions)  
USGS cooperative agreement  
IRWMP Round 3 Invoices  
IRWMP Turf Buy Back In Kind Contributions by Customer  
SWP Delta Charges  
SWP 60% Allocation  
ACWA Conference Energy and Groundwater Committee  
State Drinking Water Program Fees  
Extension of State Emergency Drought Restrictions and Comments Letters  
ACBCI Public Records Request  
Agency Site Maintenance  
Agency Vehicle Maintenance  
SWRCB Well Site Geo Tracker  
Well 6 and Well 32 Water Quality Remediation issues  
Whitewater Ranch Water Service Agreement  
Rate Study  
Replenishment Assessment Charge  
Snow Creek Hydro SCE contract extension  
Whitewater Hydro SCE contract extension  
SWP/DWA tax rates  
ACBCI PRA Whitewater Mutual Water Company  
State and Federal Contractors Water Authority and Delta Specific Project Committee  
Property Acquisition - New Mesquite HOA  
MSWD Lawsuit  
MSWD Basin Boundary Modification – Garnet Hill Sub-Area  
Yuba Water Order  
Snow Creek Security

**Reminder:** Agency offices will be closed on Monday, May 30 in observance of Memorial Day.



**Reminder:**

There will be a Special Board meeting on **June 28** (FY 2016/2017 Budgets)



# Minutes Executive Committee Meeting May 12, 2016

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**Directors Present:** Jim Cioffi, Joe Stuart  
**Staff Present:** Mark Krause, Martin Krieger, Steve Johnson

## 1. Discussion Items

### A. Review Agenda for May 17, 2016 Regular Board Meeting

The proposed agenda for the May 17, 2016 regular board meeting was reviewed.

### B. LAFCO Election

The ballot for the election has been received. There was discussion on the ballot instructions, number and identity of the nominees.

### C. Drinking Water Program fees

SB 83 (2015) required that the State Board generate sufficient revenue to pay for the level of expenditures authorized in the Budget Act. ACWA is working with the State Board to attempt to develop a fare ratepayer model. The new model introduced by the State Board favors very small systems, giving them more Division of Drinking Water (DDW) time and a reduction in fees currently paid. Conversely, Agencies like DWA could see their charges double without a corresponding increase in service. The current proposal was released for a 45-day comment period ending Monday June 13, 2016. DWA intends to submit a comment letter urging the DDW to retain a fee-for-service model.

### D. Conservation Update

On May 5, 2016, the State Board staff released a statewide conservation proposal for public comment that would amend the February 2nd emergency water conservation regulations due to the improved water supply conditions around the state. Significant proposed changes include replacing the state developed standards with locally developed conservation standards based upon each agencies specific circumstances. The proposed regulation would require individual urban water suppliers to "self-certify" the level of available water supplies they have assuming three additional dry years and the level of conservation necessary to assure adequate supply over that time. If it can be demonstrated that the available water supply is adequate, the level of conservation necessary to assure adequate supply over that time could be set extremely low, setting a higher conservation percentage may be considered by the Agency Board. The revised regulations are set for consideration on May 18. Agency staff has prepared a comment letter on the proposal and Outreach & Conservation Manager Metzger will be going to Sacramento next Wednesday as the SWRCB votes to adopt this regulation.

Also, on May 5, 2016 Governor Brown issued an executive order to extend the emergency regulations through January 2017 and directed DWR and the SWRCB to come up with a long-term conservation framework as the next iteration of the current 20x2020. This policy will go into effect in early 2017. The executive order also made the following restricted water uses permanent: hosing off hardscape, irrigating in a way that causes runoff, using a hose to wash a car (unless using a shutoff nozzle), watering a median with potable water.

There was discussion on the proposed changes for the turf rebate program and discussion on changes in the smart irrigation controller program

E. Prop 84 R 3 Grant Funding Update

The amount invoiced to date is \$1,219,817.79; DWA has yet to receive payment. The invoices were only recently submitted to DWR by IWA. DWA is continuing to discuss with DWR the acceptance of customer expenses as match funding. If customer expenses are not accepted as match funding the Agency would be responsible to make up the difference (\$225,000).

F. Expense Reports

The April expense reports were reviewed.

**2. Other**

A. Elks Lodge

The Elks Lodge sewer connection charges were discussed; they have successfully collected the necessary funds.

B. Travel Lodge

The Travel Lodge connection charges were discussed along with their inability to obtain necessary private easements to connect.

C. Cooling Tower

The cooling tower water discharge to the public street gutter system at Desert Regional Medical Center was discussed. They are working on an alternative discharge arrangement that would not result in water discharge to the gutters.

D. Tax Revenues

Finance Director Krieger informed the Committee that the County of Riverside has provided a breakdown of DWA's tax revenue sources.

**3. Adjourn**

DESERT WATER AGENCY  
STATEMENT OF CASH RECEIPTS AND EXPENDITURES

OPERATING ACCOUNT

APRIL 2016

INVESTED  
RESERVE FUNDS  
\$12,803,813.03

BALANCE                      APRIL 1, 2016                      (\$980,121.03)

WATER SALES		\$1,573,297.85
RECLAMATION SALES		124,690.98
WASTEWATER RECEIPTS		73,473.03
POWER SALES		2,109.73
METERS, SERVICES, ETC.		227,620.00
REIMBURSEMENT – GENERAL FUND		170,304.00
REIMBURSEMENT – WASTEWATER FUND		31,333.38
ACCOUNTS RECEIVABLE – OTHER		49,366.54
CUSTOMER DEPOSITS – SURETY		4,390.00
CUSTOMER DEPOSITS – CONST.		96,384.17
LEASE REVENUE		3,368.43
INTEREST RECEIVED ON INV. FDS.		23,673.83
FRONT FOOTAGE FEES		0.00
BOND SERVICE & RESERVE FUND INT		0.00
MISCELLANEOUS		53,019.68

TOTAL RECEIPTS                      \$2,433,031.62

PAYMENTS

PAYROLL CHECKS		\$323,583.65
PAYROLL TAXES		158,008.36
ELECTRONIC TRANSFERS		153,988.40
CHECKS UNDER \$10,000.00		384,221.28
CHECKS OVER \$10,000.00 – SCH. #1		1,731,241.30
CANCELLED CHECKS AND FEES		13,615.67

TOTAL PAYMENTS                      \$2,764,658.66

NET INCOME                      (\$331,627.04)

BOND SERVICE ACCOUNT

MONTHLY WATER SALES		\$0.00
EXCESS RETURNED BY B/A		\$0.00

BOND SERVICE FUND                      \$0.00

INVESTED RESERVE FUNDS

FUNDS MATURED		\$1,852,000.00
FUNDS INVESTED – SCH. #3		997,998.83

NET TRANSFER                      \$854,001.17                      (\$854,001.17)

BALANCE      APRIL 30, 2016                      (\$457,746.90)                      \$11,949,811.86



# OPERATING ACCOUNT

## SCHEDULE #1-CHECKS OVER \$10,000

CHECK #	NAME	DESCRIPTION	AMOUNT
111308	KRIEGER & STEWART INC	ENGINEERING	\$112,190.96
111314	MILLARD PUBLISHING SERVICES	LUSH & EFFICIENT BOOKS	\$10,000.00
111322	PACIFICA CONSULTING INC	INFORMATION SYSTEMS - PROGRAMMER SUPPORT	\$11,485.00
111352	Z&L PAVING, INC	PAVING	\$26,656.27
111356	ACWA-JOINT POWERS INS AUTHORITY	WORKERS COMPENSATION PREMIUM - JANUARY - MARCH 2016	\$63,379.00
111367	ACWA-JPIA	HEALTH,DENTAL & VISION INSURANCE PREMIUMS - MAY 2016	\$150,073.40
111368	DESERT WATER AGENCY - WASTEWATER	WASTEWATER REVENUE BILLING FOR MARCH 2016	\$79,613.96
111369	DESERT WATER AGENCY - GENERAL	3RD QUARTER 2015/2016 GROUNDWATER REPLENISHMENT ASSESSMENT	\$566,185.47
111381	BEST BEST & KRIEGER LLP	LEGAL FEES	\$76,153.69
111385	CANYON SPRINGS ENTERPRISES DBA	CONTRACT PAYMENT - ZONE 1040 RESERVOIR (W/O # 05-582-R-33)	\$124,212.50
111399	DOWN TO EARTH LANDSCAPING	LANDSCAPE MAINTENANCE	\$28,713.21
111406	FIESTA FORD LINCOLN CORP	VEHICLE PURCHASES ( W/O # 15-112/113/114/115-M)	\$171,769.08
111419	J COLON COATINGS INC	CONTRACT PAYMENT - RESERVOIR MAINTENANCE	\$57,760.00
111424	KRIEGER & STEWART INC	ENGINEERING	\$60,177.88
111447	SOUTHERN CALIFORNIA EDISON CO	POWER	\$154,827.99
111452	THATCHER COMPANY OF CALIFORNIA	WATER SERVICE SUPPLIES	\$17,522.89
111492	COCO CABANA HOA	TURF BUY BACK PROGRAM	\$20,520.00

== TOTAL

\$1,731,241.30

DESERT WATER AGENCY  
OPERATING FUND - LISTING OF INVESTMENTS  
APRIL 30, 2016

PURCH DATE	NAME	DESCRIPTION	MATURITY DATE	COST	PAR VALUE	MARKET VALUE	YIELD TO MATURITY	CALLABLE STATUS
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Local Agency Investment Fund

06-30-83	State of California	LAIF	Open	\$ 8,195,111.86	\$ 8,195,111.86	\$ 8,195,111.86	0.540%	-
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Certificates of Deposit

09-28-15	Union Bank	Capital Bank CD	09-28-17	\$ 250,000.00	\$ 250,000.00	\$ 250,987.50	1.050%	Bullet
01-15-16	Union Bank	Union Bank CD	01-13-17	\$ 500,000.00	\$ 500,000.00	\$ 500,165.00	0.830%	Bullet

Total Certificates of Deposit	\$ 750,000.00	\$ 750,000.00	\$ 751,152.50
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Commercial Paper

04-30-12	Union Bank	General Electric	04-27-17	\$ 1,004,700.00	\$ 1,000,000.00	\$ 1,014,310.00	2.300%	Bullet
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Total Commerical Paper	\$ 1,004,700.00	\$ 1,000,000.00	\$ 1,014,310.00
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Government Agency

05-21-15	Union Bank	FHLMC (Callable 5-21-16)	05-21-18	\$ 500,000.00	\$ 500,000.00	\$ 500,030.00	1.200%	Qtrly
11-25-15	Union Bank	FHLMC (Callable 5-25-16)	11-25-19	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,080.00	1.500%	Qtrly
12-29-15	Union Bank	FHLB (Callable 6-29-16)	06-29-18	\$ 500,000.00	\$ 500,000.00	\$ 500,270.00	1.250%	1 Time

Total Government Agency	\$ 2,000,000.00	\$ 2,000,000.00	\$ 2,000,380.00
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Weighted Mean YTM 0.848%

TOTAL INVESTED @ 04/30/16	\$ 11,949,811.86	\$ 11,945,111.86	\$ 11,960,954.36
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BALANCE @ 06/30/15	\$ 15,055,930.48
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INCREASE (DECREASE)	(\$3,106,118.62)
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DESERT WATER AGENCY  
STATEMENT OF CASH RECEIPTS AND EXPENDITURES

GENERAL ACCOUNT

APRIL 2016

INVESTED  
RESERVE FUNDS  
\$101,037,091.90

BALANCE                      APRIL 1, 2016                      (\$1,047,866.64)

* TAXES - RIVERSIDE COUNTY	1,452,421.05
* INTEREST EARNED - INV. FUNDS	110,764.36
GROUNDWATER REPLEN. ASSESSMENT	749,950.72
REIMBURSEMENT - OPERATING FUND	0.00
REIMBURSEMENT - CVWD MGMT AGRMT	0.00
STATE WATER PROJECT REFUNDS	386,405.00
REIMB - CVWD - WHITEWATER HYDRO	0.00
POWER SALES - WHITEWATER	0.00
MISCELLANEOUS	313.96

TOTAL RECEIPTS                      \$2,699,855.09

PAYMENTS

CHECKS UNDER \$10,000.00	22,700.00
CHECKS OVER \$10,000.00 - SCH. #1	915,883.00
CANCELLED CHECKS AND FEES	1,126,190.00

TOTAL PAYMENTS                      \$2,064,773.00

NET INCOME                      \$635,082.09

INVESTED RESERVE FUNDS

FUNDS MATURED	11,286,450.00
FUNDS INVESTED – SCH. #2	10,544,343.47

NET TRANSFER                      \$742,106.53                      (\$742,106.53)

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BALANCE      APRIL 30, 2016                      \$329,321.98                      \$100,294,985.37

\* INCLUSIVE TO DATE

	TAXES	INTEREST
RECEIPTS IN FISCAL YEAR	\$14,137,412.37	\$735,788.23
RECEIPTS IN CALENDAR YEAR	\$8,264,283.75	\$279,299.72

DESERT WATER AGENCY  
GENERAL ACCOUNT

SCHEDULE #1 - CHECKS OVER \$10,000

CHECK #	NAME	DESCRIPTION	AMOUNT
8737	STATE OF CA. DEPT. OF WATER RESOURCES	STATE WATER PROJECT ENTITLEMENT - JANUARY 2016	\$24,374.00
8739	HORT TECH INC	MAINTENANCE - MISSION CREEK RECHARGE BASINS	\$39,000.00
8742	DESERT WATER AGENCY-OPERATING	P/R & EXP REIMBURSEMENT FOR MARCH 2016	\$170,304.00
8746	STATE OF CA. DEPT. OF WATER RESOURCES	STATE WATER PROJECT - APRIL 2016	\$682,205.00

\*\* TOTAL

\$915,883.00

**DESERT WATER AGENCY**  
**GENERAL FUND - LISTING OF INVESTMENTS**  
**APRIL 30, 2016**

PURCHASE DATE	NAME	DESCRIPTION	MATURITY DATE	COST	PAR VALUE	MARKET VALUE	YIELD TO MATURITY	CALLABLE STATUS
<b>Local Agency Investment Fund</b>								
06-30-83	State of California	LAIF	Open	\$ 37,825,263.70	\$ 37,825,263.70	\$ 37,825,263.70	0.540%	-
<b>Certificates of Deposit</b>								
01-25-13	Union Bank	General Electric Capital Bank CD	01-25-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,910.00	1.100%	Bullet
12-04-14	Ladenburg Thalmann	AEX Centurion Bank CD	12-05-16	\$ 245,000.00	\$ 245,000.00	\$ 245,807.76	1.050%	Bullet
09-28-15	Union Bank	Capital Bank CD	09-28-17	\$ 250,000.00	\$ 250,000.00	\$ 250,987.50	1.050%	Bullet
10-07-15	Ladenburg Thalmann	Goldman Sachs CD	04-07-18	\$ 245,000.00	\$ 245,000.00	\$ 247,070.00	1.350%	Bullet
10-29-15	Ladenburg Thalmann	Ally Bank CD	10-30-17	\$ 245,000.00	\$ 245,000.00	\$ 246,213.24	1.150%	Bullet
11-04-15	Ladenburg Thalmann	Capital One NA CD	11-06-17	\$ 245,000.00	\$ 245,000.00	\$ 246,038.80	1.100%	Bullet
11-04-15	Ladenburg Thalmann	Discover CD	11-06-17	\$ 245,000.00	\$ 245,000.00	\$ 246,221.08	1.150%	Bullet
01-15-16	Union Bank	Union Bank CD	01-13-17	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,330.00	0.830%	Bullet
Total Certificates of Deposit				\$ 3,475,000.00	\$ 3,475,000.00	\$ 3,483,578.38		
<b>Commercial Paper</b>								
05-09-11	Stifel (D.A.D)	General Electric	05-09-16	\$ 1,000,900.00	\$ 1,000,000.00	\$ 1,000,350.00	2.950%	Bullet
06-07-11	Union Bank	UB Bank Note	06-06-16	\$ 2,000,000.00	\$ 2,000,000.00	\$ 2,004,000.00	3.000%	Bullet
10-18-11	Union Bank	General Electric	05-09-16	\$ 999,810.00	\$ 1,000,000.00	\$ 1,000,350.00	2.950%	Bullet
12-16-13	Stifel	General Electric	05-15-18	\$ 587,600.00	\$ 500,000.00	\$ 544,340.00	6.300%	Bullet
04-27-15	Ladenburg Thalmann	Apple Inc.	05-03-18	\$ 997,920.00	\$ 1,000,000.00	\$ 1,000,124.00	1.000%	Bullet
02-01-16	Union Bank	US Bank Note (Callable 12-29-17)	01-29-18	\$ 1,000,950.00	\$ 1,000,000.00	\$ 1,005,390.00	1.450%	1 Time
Total Commercial Paper				\$ 6,587,180.00	\$ 6,500,000.00	\$ 6,554,554.00		
<b>Government Agency</b>								
09-19-12	Stifel (D.A.D)	FNMA	09-19-17	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,001,860.00	0.950%	1 Time
10-03-12	Stifel (D.A.D)	FNMA	10-03-16	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,320.00	0.650%	1 Time
10-10-12	Ladenburg Thalmann	FFCB (Callable Continuous)	10-10-17	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,010.00	0.900%	Continuous
10-11-12	Stifel (D.A.D)	FFCB (Callable Continuous)	07-11-17	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,000.00	0.820%	Continuous
10-17-12	Ladenburg Thalmann	FHLB (Callable 7-17-16)	04-17-17	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,010.00	0.800%	Qtrly
12-05-12	Ladenburg Thalmann	FFCB (Callable Continuous)	06-05-17	\$ 999,250.00	\$ 1,000,000.00	\$ 1,000,040.00	0.770%	Continuous
12-20-12	Ladenburg Thalmann	FFCB (Callable Continuous)	03-20-17	\$ 998,700.00	\$ 1,000,000.00	\$ 1,000,000.00	0.670%	Continuous
12-28-12	Stifel (D.A.D)	FHLB (Callable Continuous)	12-28-17	\$ 1,000,000.00	\$ 1,000,000.00	\$ 998,150.00	0.840%	Continuous
02-05-13	Ladenburg Thalmann	FHLB (Callable Continuous)	02-05-18	\$ 666,666.67	\$ 666,666.67	\$ 666,693.32	1.000%	Continuous
02-14-13	Stifel (D.A.D)	FHLMC (Callable 5-14-16)	02-14-18	\$ 999,750.00	\$ 1,000,000.00	\$ 1,000,300.00	1.000%	Qtrly
02-28-13	Ladenburg Thalmann	FNMA (Callable 5-28-16)	02-28-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,110.00	1.150%	Qtrly
03-12-13	Stifel (D.A.D)	FFCB (Callable Continuous)	03-12-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 999,030.00	1.030%	Continuous
03-27-13	Stifel (D.A.D)	FHLB (Callable 6-27-16)	03-27-18	\$ 749,625.00	\$ 750,000.00	\$ 750,105.00	1.130%	Qtrly
03-27-13	Ladenburg Thalmann	FNMA (Callable 6-27-16)	03-27-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 998,010.00	1.050%	Qtrly
05-07-13	Ladenburg Thalmann	FFCB (Callable Continuous)	11-07-16	\$ 999,850.00	\$ 1,000,000.00	\$ 999,530.00	0.540%	Continuous
06-13-13	Ladenburg Thalmann	FHLB (Callable 6-13-16)	06-13-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,220.00	1.100%	Qtrly
07-29-14	Stifel (D.A.D)	FNMA (Callable 7-29-16)	10-29-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,003,000.00	1.500%	1 Time
09-29-14	Union Bank	FHLMC	09-29-16	\$ 1,500,000.00	\$ 1,500,000.00	\$ 1,500,900.00	0.650%	1 Time
05-14-15	Stifel	FHLMC (Callable 5-14-16)	02-14-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 999,130.00	1.050%	Qtrly

DESERT WATER AGENCY  
GENERAL FUND - LISTING OF INVESTMENTS  
APRIL 30, 2016

PURCHASE DATE	NAME	DESCRIPTION	MATURITY DATE	COST	PAR VALUE	MARKET VALUE	YIELD TO MATURITY	CALLABLE STATUS
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Government Agency

06-23-15	Ladenburg Thalmann	FHLMC	06-23-17	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,002,340.00	0.900%	1 Time
06-30-15	Stifel	FHLB (Callable 6-24-16)	12-24-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,770.00	1.400%	1 Time
09-30-15	Union Bank	FFCB (Callable Continuous)	09-30-19	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,020.00	1.530%	Continuous
10-02-15	Stifel	FHLB (Callable 10-2-17)	10-02-19	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,004,610.00	1.450%	Continuous
10-29-15	Stifel	FHLB (Callable 7-29-16)	10-29-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,010.00	1.120%	Qtrly
11-23-15	Ladenburg Thalmann	FHLMC (Callable 5-23-16)	05-23-18	\$ 996,000.00	\$ 1,000,000.00	\$ 999,825.00	1.000%	Qtrly
11-23-15	Ladenburg Thalmann	FHLMC (Callable 5-23-16)	02-23-18	\$ 999,500.00	\$ 1,000,000.00	\$ 1,000,328.00	1.000%	Qtrly
11-24-15	Ladenburg Thalmann	FHLMC (Callable 5-24-16)	05-24-19	\$ 998,900.00	\$ 1,000,000.00	\$ 999,475.00	1.350%	Qtrly
11-25-15	Union Bank	FHLMC (Callable 5-25-16)	11-25-19	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,080.00	1.500%	Qtrly
11-25-15	Stifel	FNMA (Callable 11-25-16)	11-25-19	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,001,640.00	1.500%	Qtrly
11-30-15	Stifel	FHLMC (Callable 5-23-16)	11-23-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,150.00	1.200%	Qtrly
12-28-15	Ladenburg Thalmann	FHLB (Callable 6-28-16)	09-28-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,700.00	1.350%	Qtrly
12-28-15	Stifel	FHLB (Callable 6-28-16)	12-28-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,990.00	1.450%	Qtrly
12-29-15	Union Bank	FHLB (Callable 6-29-16)	06-29-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,540.00	1.250%	1 Time
12-30-15	Ladenburg Thalmann	FHLMC STEP (Callable 6-30-16)	12-30-19	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,737.00	1.000%	Qtrly
01-27-16	Stifel	FHLB (Callable 7-27-16)	07-27-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,001,000.00	1.300%	1 Time
01-29-16	Ladenburg Thalmann	FHLB (Callable 7-29-16)	07-29-19	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,500.00	1.650%	Qtrly
01-29-16	Ladenburg Thalmann	FHLB (Callable 7-29-16)	04-29-20	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,710.00	1.750%	Qtrly
02-26-16	Ladenburg Thalmann	FHLMC (Callable 5-26-16)	02-26-20	\$ 1,000,000.00	\$ 1,000,000.00	\$ 999,957.00	1.625%	Qtrly
02-26-16	Ladenburg Thalmann	FNMA (Callable 8-26-16)	02-26-19	\$ 1,000,000.00	\$ 1,000,000.00	\$ 999,150.00	1.250%	Qtrly
02-26-16	Ladenburg Thalmann	FNMA STEP (Callable 8-26-16)	02-26-19	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,350.00	1.000%	Qtrly
02-26-16	Stifel	FNMA STEP (Callable 8-26-16)	02-26-19	\$ 1,500,000.00	\$ 1,500,000.00	\$ 1,499,940.00	0.600%	1 Time
03-09-16	Ladenburg Thalmann	FFCB (Callable 6-9-16)	09-09-19	\$ 1,000,000.00	\$ 1,000,000.00	\$ 997,630.00	1.390%	Continuous
03-16-16	Union Bank	FHLMC (Callable 6-16-16)	03-16-18	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,060.00	1.125%	Qtrly
03-23-16	Ladenburg Thalmann	FNMA (Callable 9-23-16)	03-23-20	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,340.00	1.500%	Qtrly
03-29-16	Ladenburg Thalmann	FHLMC (Callable 6-29-16)	03-29-19	\$ 999,800.00	\$ 1,000,000.00	\$ 1,000,638.00	1.400%	Qtrly
03-30-16	Ladenburg Thalmann	FHLB (Callable 6-30-16)	09-30-20	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,360.00	1.750%	Qtrly
03-30-16	Stifel	FNMA STEP (Callable 9-30-16)	03-30-21	\$ 1,000,000.00	\$ 1,000,000.00	\$ 999,490.00	1.350%	Qtrly
03-30-16	Stifel	FHLMC STEP (Callable 9-30-16)	03-30-21	\$ 1,000,000.00	\$ 1,000,000.00	\$ 997,310.00	1.250%	Qtrly
04-14-16	Ladenburg Thalmann	FHLMC STEP (Callable 10-14-16)	04-14-21	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,000,899.00	1.500%	Qtrly
04-26-16	Ladenburg Thalmann	FHLB (Callable 7-26-16)	10-26-20	\$ 999,500.00	\$ 1,000,000.00	\$ 995,970.00	1.550%	Continuous
04-28-16	Union Bank	FHLMC (Callable 10-28-16)	01-28-20	\$ 1,000,000.00	\$ 1,000,000.00	\$ 999,470.00	1.400%	Qtrly
04-28-16	Ladenburg Thalmann	FHLMC (Callable 10-28-16)	01-28-21	\$ 1,000,000.00	\$ 1,000,000.00	\$ 998,218.00	1.700%	Qtrly

Total Government Agency \$ 52,407,541.67 \$ 52,416,666.67 \$ 52,421,625.32

Weighted Mean YTM 1.029%

TOTAL INVESTED @ 04/30/16 \$ 100,294,985.37 \$ 100,216,930.37 \$ 100,285,021.40

BALANCE @ 06/30/15 \$ 100,021,864.49

\$ 273,120.88

DESERT WATER AGENCY  
STATEMENT OF CASH RECEIPTS AND EXPENDITURES

WASTEWATER ACCOUNT

APRIL 2016

INVESTED  
RESERVE FUNDS  
\$1,044,901.12

BALANCE	APRIL 1, 2016	(\$36,862.61)	
ACCOUNTS RECEIVABLE - OTHER		\$0.00	
CUSTOMER DEPOSITS - CONSTRUCTION		0.00	
INTEREST EARNED - INVESTED FUNDS		456.02	
WASTEWATER REVENUE		79,613.96	
SEWER CAPACITY CHARGES		51,911.95	
MISCELLANEOUS		<u>0.00</u>	
TOTAL RECEIPTS		\$131,981.93	
PAYMENTS			
CHECKS UNDER \$10,000.00		\$7,951.65	
CHECKS OVER \$10,000.00 - SCH. #1		104,035.46	
CANCELLED CHECKS AND FEES		<u>0.00</u>	
TOTAL PAYMENTS		<u>\$111,987.11</u>	
NET INCOME		\$19,994.82	
INVESTED RESERVE FUNDS			
FUNDS MATURED		\$37,000.00	
FUNDS INVESTED - SCH. #2		<u>36,129.89</u>	
NET TRANSFER			\$870.11 (\$870.11)
BALANCE	APRIL 30, 2016	(\$15,997.68)	\$1,044,031.01

DESERT WATER AGENCY  
WASTEWATER ACCOUNT  
SCHEDULE #1-CHECKS OVER \$10,000

CHECK #	NAME	DESCRIPTION	AMOUNT
2431	DESERT WATER AGENCY - OPERATING	OPERATING FUND REIMBURSEMENT FOR LIFT STATION CHOPPER ( W/O # 15-001-M)	\$12,751.17
2434	DESERT WATER AGENCY - OPERATING	OPERATING FUND REIMBURSEMENT FOR MARCH 2016	\$31,333.38
2435	COACHELLA VALLEY WATER DISTRICT	WASTEWATER REVENUE BILLING FOR MARCH 2016	\$47,868.33
2436	COACHELLA VALLEY WATER DISTRICT	SEWER CAPACITY CHARGES (CONTRACT PAYMENTS)	\$12,082.58
*** TOTAL			\$104,035.46



DESERT WATER AGENCY  
WASTEWATER FUND - LISTING OF INVESTMENTS  
APRIL 30, 2016

PURCH DATE	NAME	DESCRIPTION	MATURITY DATE	COST	PAR VALUE	MARKET VALUE	YIELD TO MATURITY
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Local Agency Invstment Fund
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06-30-83	State of California	LAIF	Open	\$ 1,044,031.04	\$ 1,044,031.04	\$ 1,044,031.04	0.540%
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TOTAL INVESTED @ 04/30/16	\$ 1,044,031.04	\$ 1,044,031.04	\$ 1,044,031.04
BALANCE @ 06/30/15	\$ 862,257.70		
INCREASE OR (DECREASE)	\$ 181,773.34		

DESERT WATER AGENCY - OPERATING FUND  
COMPARATIVE EARNINGS STATEMENT

MONTH 15-16 APRIL	-----THIS MONTH-----			-----FISCAL YEAR TO DATE-----			/---VARIANCE---/	
	THIS YEAR	BUDGET	LAST YEAR	THIS YEAR	LAST YEAR	BUDGET	YTD	PCT
OPERATING REVENUES								
WATER SALES	1,685,559.90	1,452,350.00	17,792,923.42	20,811,207.57	15,867,450.00	1,925,473.42	12	
RECLAMATION SALES	124,690.98	85,225.00	1,127,397.55	1,144,003.74	1,120,225.00	7,172.55	1	
POWER SALES	2,109.73	2,500.00	8,213.64	23,760.69	25,000.00	16,786.36	67	
OTHER OPER REVENUE	186,297.73	101,750.00	1,207,494.21	1,149,448.47	1,017,500.00	189,994.21	19	
TOTAL OPER REVENUES	1,998,658.34	1,651,825.00	20,136,028.82	23,128,420.47	18,030,175.00	2,105,853.82	12	
OPERATING EXPENSES								
SOURCE OF SUPPLY EXP	23,058.78	19,500.00	2,279,884.69	2,700,239.36	2,840,000.00	560,115.31	20	
PUMPING EXPENSE	136,940.22	232,225.00	2,417,500.20	2,808,109.00	2,479,650.00	62,149.80	3	
REGULATORY WATER TREAT	40,696.32	43,225.00	402,410.85	412,986.88	432,250.00	29,839.15	7	
TRANS & DIST EXPENSE	277,425.83	271,966.00	2,542,514.34	1,982,443.20	2,719,668.00	177,153.66	7	
CUSTOMER ACT EXPENSE	78,083.36	71,825.00	749,540.64	758,500.81	705,050.00	44,490.64	6	
ADMIN & GEN EXPENSE	697,953.40	863,000.00	7,660,224.57	6,728,871.35	7,533,400.00	526,824.57	4	
REGULATORY EXPENSE	4,745.48	17,525.00	103,164.30	176,731.37	175,250.00	72,085.70	41	
SNOW CREEK HYDRO EXP	1,919.57	3,350.00	31,507.16	30,394.41	33,500.00	1,992.84	6	
RECLAMATION PLNT EXP	86,067.09	72,709.00	730,545.90	581,910.05	727,082.00	3,463.90	0	
SUB-TOTAL	1,346,890.05	1,595,325.00	16,917,292.65	16,180,186.43	17,445,850.00	528,557.35	3	
OTHER OPER EXPENSES								
DEPRECIATION	456,165.16	473,000.00	4,535,158.11	4,480,509.28	4,730,000.00	194,841.89	4	
SERVICES RENDERED	10,511.68	11,500.00	163,354.37	124,423.61	115,000.00	48,354.37	42	
DIR & INDIR CST FOR WD	160,537.59	71,900.00	1,702,532.74	1,564,105.01	719,000.00	983,532.74	137	
TOTAL OPER EXPENSES	1,653,029.30	2,007,925.00	19,913,272.39	19,221,014.31	21,571,850.00	1,658,577.61	3	
NET INCOME FROM OPERATIONS	345,629.04	356,100.00	222,756.43	3,907,406.16	3,541,675.00	3,764,431.43	106	
NON-OPERATING INCOME (NET)								
RENTS	3,368.43	3,350.00	65,351.33	63,324.70	65,300.00	51.33	0	
INTEREST REVENUES	8,071.33	7,125.00	76,941.45	69,089.60	71,250.00	5,691.45	8	
OTHER REVENUES	120.00	.00	132,737.52	98,983.83	13,500.00	119,237.52	883	
GAINS ON RETIREMENT	2,308.06	.00	2,308.06	1,137.48	900.00	1,408.06	156	
DISCOUNTS	10.06	300.00	394.30	3,271.09	3,000.00	2,605.70	87	
PR. YEAR EXPENSES	.00	.00	522.10	33,469.52	.00	522.10	0	
LOSS ON RETIREMENTS	7,351.38	1,375.00	55,212.73	52,546.40	13,750.00	41,462.73	302	
TOTAL NON-OPER INCOME	6,526.50	9,400.00	223,042.03	214,849.82	140,200.00	82,842.03	59	
TOTAL NET INCOME	352,155.54	346,700.00	445,798.46	4,122,255.98	3,401,475.00	3,847,273.46	113	

**STAFF REPORT  
TO  
DESERT WATER AGENCY  
BOARD OF DIRECTORS**

**MAY 17, 2016**

**RE: WATER USE VIOLATION – CIVIL PENALTY HEARINGS**

Starting after the March 1st board meeting, staff began issuing water use violations under the new ordinance; more than 195 violations have been issued. Recipients of the violations have 7 days to request a hearing in writing. Staff has received two such requests for a hearing on the violations since the last hearing on April 19. Both violations have hearings scheduled for today's board meeting.

The following is a summary of the procedure for the hearings.

Staff has provided the Board with the correspondence for each of the violations including photographic evidence. Photographs will also be projected during the hearing to provide the board and customer a common point of reference for discussion.

Staff will introduce each violation with a summary of the event. After the introduction the customer will be invited by the Board to speak concerning the violation. If the recipient of the violation is not present or does not wish to speak, staff will read the violation summary and submit the written petition into the record for board action.

Each petition will be discussed and voted on separately.

As a point of reference, Staff has notified Agency customers concerning water conservation regulations in several different ways:

Recent Notifications

1. Published the ordinance in The Public Record
2. Published the ordinance in the Agency Website
3. Social media outlets
4. KMIR, KESQ, KPCC, the Joey English Show
5. Desert Sun Valley Voice
6. Palm Desert Patch
7. Email to Palm Springs and Cathedral City Chambers
8. Emails to HOA in our contact list
9. Emails to high volume users

### Comprehensive Notifications – Since June 2015

1. Direct mail to all customers
2. Bill Inserts
3. Bill on envelope messaging
4. Billboards
5. Online advertising (KESQ)
6. Television advertising (Time Warner)
7. Social media
8. Several public presentations on TV
9. Print and radio Interviews
10. DWA and CVWD websites

**1. Roger Bergensen, 1193 Cassia Trail**

- a. On Wednesday, April 27, at 4:08 p.m. a Desert Water Agency representative observed water use violations at said address and reported them.
  - i. Irrigating between the restricted hours of 7 a.m. and 7 p.m.
  - ii. Runoff from irrigation onto hardscape occurred.
- b. Fine amount \$50
  - i. Single-family home
  - ii. First violation
- c. Reason for petition
  - i. Timer malfunctioning and wind

James Cioffi, President  
Joseph K. Stuart, Vice President  
Kristin Bloomer, Secretary-Treasurer  
Patricia G. Oygar, Director  
Craig A. Ewing, Director



Mark S. Krause, General Manager-Chief Engineer  
Best, Best & Krieger, General Counsel  
Krieger & Stewart, Consulting Engineers

Linda & Roger Bergersen  
1193 Cassia Trl  
Palm Springs, CA 92262

April 28, 2016

**RE: FINE ON [REDACTED]; 1193 Cassia Trl**

Dear Valued Customer:

Due to a water use violation observed and documented by a Desert Water Agency representative on Wednesday, April 27, 2016 at 4:08 pm, you are being served with a complaint to impose a civil (monetary) penalty.

You have 7 days to request, in writing, a hearing on this violation. If you do request a hearing, you will need to come to the Agency and present information that refutes the alleged violation. If you do not request a hearing within 7 days of this complaint, the civil penalty of \$50.00 will be added onto your water bill.

You were cited for:

- ***Outdoor residential irrigation shall be restricted to Mondays, Wednesdays and Fridays, before 7:00 a.m. and after 7:00 p.m.***
- ***Runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures is prohibited.***

This is a violation of Desert Water Agency's Ordinance No. 65. For a first violation within any 12-month period, the civil penalty shall be \$100 for a multi-family residential, commercial or institutional establishment or \$50 for a single-family residential customer.

For a second violation within any 12-month period, the civil penalty shall be \$200 for a multi-family residential, commercial or institutional establishment or \$100 for a single-family residential customer.

For a third and each subsequent violation within any 12-month period, the civil penalty shall be \$500 for a multi-family residential, commercial or institutional establishment or \$250 for a single-family residential customer.

Failure to pay the civil penalty on your water bill may result in termination of water service. In addition, the Agency staff shall be authorized to discontinue water service for any violation of the Ordinance.



If you have any additional questions, please contact us.

Thank you,

Ashley Metzger  
Outreach & Conservation Manager  
Desert Water Agency  
*On behalf of General Manager Mark Krause*

## Ashley Metzger

---

**From:** roger bergersen <bergie6@yahoo.com>  
**Sent:** Friday, May 06, 2016 4:30 PM  
**To:** Ashley Metzger  
**Subject:** Request hearing / [REDACTED]; 1193 Cassia Trail

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Ashley,

Per our conversation today May, 6 I am requesting a hearing regarding this complaint. Unfortunately we were out of town from May 2 thru May 5 and did not address our mail until today. Our timer was set for 7:00 PM but for some reason it engaged at 4:00 PM. We noticed this on April 30. We address the problem ourselves by vacuuming the inside of the lower box as well as the dial. We turned the dial back and forth and worked the settings for different times to see if that made a difference. For whatever reason the timer seems to be working fine now. I have also at your suggestion applied for a smart controller through Vicki Petek. You mentioned May 17 at 8:00 AM for the hearing. Could you please confirm that date. Thank you for your input.

Sincerely,  
Roger Bergersen  
760 699 8765









## **2. Brant Griffin, 695 S Vista**

- a. On Monday, April 4, at 4:15 p.m. a Desert Water Agency representative observed water use violations at said address and reported them.
  - i. Irrigation was observed during restricted outdoor watering hours of 7 a.m. and 7 p.m.
  - ii. Runoff from irrigation onto hardscape occurred.
- b. Fine amount \$50
  - i. Residential
  - ii. First violation
- c. Reason for petition
  - i. No reason given



James Cioffi, President  
Joseph K. Stuart, Vice President  
Kristin Bloomer, Secretary-Treasurer  
Patricia G. Oygar, Director  
Craig A. Ewing, Director



Mark S. Krause, General Manager-Chief Engineer  
Best, Best & Krieger, General Counsel  
Krieger & Stewart, Consulting Engineers

Brant Griffin  
North Pier  
3415 S Sepulveda 11th Floor  
Los Angeles, CA 90034

April 4, 2016

**RE: FINE ON ACCOUNT# [REDACTED] 695 S Vista Oro**

Dear Valued Customer:

Due to a water use violation observed and documented by a Desert Water Agency representative on Monday, April 4, 2016 at 4:15 pm, you are being served with a complaint to impose a civil (monetary) penalty.

You have 7 days to request, in writing, a hearing on this violation. If you do request a hearing, you will need to come to the Agency and present information that refutes the alleged violation. If you do not request a hearing within 7 days of this complaint, the civil penalty of \$50.00 will be added onto your water bill.

You were cited for:

- ***Outdoor residential irrigation shall be restricted to Mondays, Wednesdays and Fridays, before 7:00 a.m. and after 7:00 p.m.***
- ***Runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures is prohibited.***

This is a violation of Desert Water Agency's Ordinance No. 65. For a first violation within any 12-month period, the civil penalty shall be \$100 for a multi-family residential, commercial or institutional establishment or \$50 for a single-family residential customer.

For a second violation within any 12-month period, the civil penalty shall be \$200 for a multi-family residential, commercial or institutional establishment or \$100 for a single-family residential customer.

For a third and each subsequent violation within any 12-month period, the civil penalty shall be \$500 for a multi-family residential, commercial or institutional establishment or \$250 for a single-family residential customer.

Failure to pay the civil penalty on your water bill may result in termination of water service. In addition, the Agency staff shall be authorized to discontinue water service for any violation of the Ordinance.



If you have any additional questions, please contact us.

Thank you,

Ashley Metzger  
Outreach & Conservation Manager  
Desert Water Agency  
*On behalf of General Manager Mark Krause*

April 12, 2016



**DESERT WATER AGENCY**

Attn: Director of Hearing Administration  
1200 South Gene Autry Trail,  
Palm Springs, CA 92264  
Fax: (760) 325-6505

**Re: Brant Griffin**  
**Account:** [REDACTED]  
**695 S Vista Oro**  
**Palm Springs, CA 92264**

Dear Desert Water Agency,

I am requesting a hearing due to a water use violation observed and documented by one of your representatives last April 4, 2016.

Sincerely yours,

  
Brant J. Griffin



695













**STAFF REPORT  
TO  
DESERT WATER AGENCY  
BOARD OF DIRECTORS**

**MAY 17, 2016**

**RE: RECOMMEND CONTRACT AWARD FOR CONSTRUCTING  
ZONE 1240 BOOSTER PLANT (DESERT PALISADE TRACT)**

On May 10, 2016, the Agency received five (5) bids for subject work. The bid amounts and the Engineer's estimate are as follows:

CONTRACTOR	BID AMOUNT
Cora Constructors	\$741,000
Borden Excavating, Inc	\$775,775
Canyon Springs Enterprises	\$787,230
Pacific Hydrotech Corporation	\$804,200
RC Foster Corporation	\$995,600
Engineer's Estimate	\$800,000
Revised Engineer's Estimate	\$1,130,000

Cora Constructors submitted the lowest responsive bid for the project, approximately 4.7% lower than the second low bid from Borden Excavating, Inc. Cora Constructors is considered a capable contractor with a current Class A contractor's license No.766304.

The 2015/2016 Capital Improvement Budget includes Work Order 15-150-B for the installation of said booster plant. The current budget for the work order is \$950,000 to include engineering, construction, inspection, and overhead costs. To date, \$71,230 has been spent on engineering design.

The current budget amount of \$950,000 was based on the original Engineer's construction cost estimate of \$800,000. The estimate was evaluated by Krieger and Stewart at \$1,130,000. The increase was based on recent costs that Krieger and Stewart experienced on booster projects for other water agencies. Staff anticipated having to augment the existing budget; however, the bid submitted by Cora Constructors does not require a budget augmentation.

Staff recommends awarding the Contract for subject work to Cora Constructors in the amount of \$741,000. Based on the bidding documents, the project is scheduled to begin in June 2016 with completion by January 2017.

**STAFF REPORT  
TO  
DESERT WATER AGENCY  
BOARD OF DIRECTORS**

**MAY 17, 2016**

**RE: PUBLIC MEETING ON GROUNDWATER REPLENISHMENT**

- (1) 2016/2017 MISSION CREEK GROUNDWATER  
REPLENISHMENT ASSESSMENT**
- (2) 2016/2017 WHITEWATER GROUNDWATER  
REPLENISHMENT ASSESSMENT**
- (3) 2016/2017 GARNET HILL GROUNDWATER  
REPLENISHMENT ASSESSMENT**

At its April 19, 2016 meeting, the Board discussed the draft Engineer's Report on Groundwater Replenishment Assessments for the Mission Creek, Whitewater and Garnet Hill Sub-basins. Today's meeting is intended to allow interested parties to come to the Board and provide their comments on the proposed assessments contained in the final Engineer's Reports. As indicated in the draft and final Replenishment Reports, the proposed Mission Creek Groundwater Replenishment Assessment will be set at \$102 per acre-foot. The proposed Whitewater Groundwater Replenishment Assessment will also be set at \$102 per acre-foot. The proposed Garnet Hill Groundwater Assessment will also be set at \$102 per acre-foot. These assessment amounts are the same as the current 2015/2016 assessments.

Staff requests a determination be made that funds should be raised by a replenishment assessment, and the Board set the time and place for public hearing on the matter for June 7, 2016, to consider resolutions of findings of fact and levying replenishment assessments for the fiscal year 2016/2017.

**NOTICE OF PUBLIC HEARING  
ON  
PROPOSED REPLENISHMENT ASSESSMENT  
FOR THE  
MISSION CREEK SUBBASIN  
  
DESERT WATER AGENCY**

NOTICE is hereby given that the Board of Directors of the Desert Water Agency will hold a public meeting on May 17, 2016 and has called for a public hearing on June 7, 2016 at 8:00 AM in the Board Room at the Agency's Operations Center, 1200 Gene Autry Trail South, Palm Springs, California.

The purpose of the public hearing is to consider a proposed water replenishment assessment to be levied by the Desert Water Agency upon all water production, except as hereinafter provided, within the following described Area of Benefit:

That portion of the Mission Creek Subbasin of the Upper Coachella Valley Groundwater Basin lying within the boundaries of the Desert Water Agency.

The proposed replenishment assessment will apply to both groundwater extractions and surface water diversions within or affecting the Area of Benefit. Minimal pumpers producing less than 10 AF/Yr, and diverters of stream flow that do not diminish said flow in excess of 10 AF/Yr, will be exempt from the replenishment assessment. Production of water pursuant to any right to divert surface flow, which has been determined in a statutory adjudication proceeding, specifically, the Whitewater River Adjudication, will also be exempt from assessment.

The purpose of the proposed assessment is to provide funds for fiscal year 2016/2017 to replenish groundwater supplies within the Area of Benefit. The Consulting Engineer of the Desert Water Agency has concluded that such groundwater supplies are in a condition of overdraft, and that the Agency should continue to request its maximum Table A water allocation of State Water Project water (and to exchange it for Colorado River water pursuant to an exchange agreement with the Metropolitan Water District of Southern California) for replenishment purposes.

The Consulting Engineer specifically recommends that the Agency request its maximum annual Table A allocation for 2016 and 2017 of 55,750 AF/Yr, and that the proposed 2016/2017 replenishment assessment rate for the Mission Creek Subbasin remain at \$102.00/AF in accordance with the rates adopted by Desert Water Agency during the Proposition 218 hearing held October 19, 2010. The 2016/2017 replenishment assessment is expected to raise approximately \$888,420 within the Mission Creek Subbasin Area of Benefit. The replenishment assessment will be collected from all non-exempt groundwater producers on a quarterly basis.

A copy of the engineering report prepared by the Agency's Consulting Engineer, entitled "Engineer's Report on Ground Water Replenishment and Assessment Program for the Whitewater River, Mission Creek, and Garnet Hill Subbasins, Desert Water Agency, 2016/2017", is available for inspection at the office of the Desert Water Agency, 1200 Gene Autry Trail South, Palm Springs, California.

**NOTICE OF PUBLIC HEARING  
ON  
PROPOSED REPLENISHMENT ASSESSMENT  
FOR THE  
GARNET HILL SUBBASIN  
  
DESERT WATER AGENCY**

NOTICE is hereby given that the Board of Directors of the Desert Water Agency will hold a public meeting on May 17, 2016 and has called for a public hearing on June 7, 2016 at 8:00 AM in the Board Room at the Agency's Operations Center, 1200 Gene Autry Trail South, Palm Springs, California.

The purpose of the public hearing is to consider a proposed water replenishment assessment to be levied by the Desert Water Agency upon all water production, except as hereinafter provided, within the following described Area of Benefit:

That portion of the Garnet Hill Subbasin of the Upper Coachella Valley Groundwater Basin lying within the boundaries of the Desert Water Agency.

The proposed replenishment assessment will apply to both groundwater extractions and surface water diversions within or affecting the Area of Benefit. Minimal pumpers producing less than 10 AF/Yr, and diverters of stream flow that do not diminish said flow in excess of 10 AF/Yr, will be exempt from the replenishment assessment. Production of water pursuant to any right to divert surface flow, which has been determined in a statutory adjudication proceeding, specifically, the Whitewater River Adjudication, will also be exempt from assessment.

The purpose of the proposed assessment is to provide funds for fiscal year 2016/2017 to replenish groundwater supplies within the Area of Benefit. The Consulting Engineer of the Desert Water Agency has concluded that such groundwater supplies are in a condition of overdraft, and that the Agency should continue to request its maximum Table A water allocation of State Water Project water (and to exchange it for Colorado River water pursuant to an exchange agreement with the Metropolitan Water District of Southern California) for replenishment purposes.

The Consulting Engineer specifically recommends that the Agency request its maximum annual Table A allocation for 2016 and 2017 of 55,750 AF/Yr, and that the proposed 2016/2017 replenishment assessment rate for the Garnet Hill Subbasin remain at \$102.00/AF in accordance with the rates adopted by Desert Water Agency during the Proposition 218 hearing held October 19, 2010. The 2016/2017 replenishment assessment is expected to raise approximately \$34,680 within the Garnet Hill Subbasin Area of Benefit. The replenishment assessment will be collected from all non-exempt groundwater producers on a quarterly basis.

A copy of the engineering report prepared by the Agency's Consulting Engineer, entitled "Engineer's Report on Ground Water Replenishment and Assessment Program for the Whitewater River, Mission Creek, and Garnet Hill Subbasins, Desert Water Agency, 2016/2017", is available for inspection at the office of the Desert Water Agency, 1200 Gene Autry Trail South, Palm Springs, California.

**NOTICE OF PUBLIC HEARING  
ON  
PROPOSED REPLENISHMENT ASSESSMENT  
FOR THE  
WHITEWATER RIVER SUBBASIN  
  
DESERT WATER AGENCY**

NOTICE is hereby given that the Board of Directors of the Desert Water Agency will hold a public meeting on May 17, 2016 and has called for a public hearing on June 7, 2016 at 8:00 AM in the Board Room at the Agency's Operations Center, 1200 Gene Autry Trail South, Palm Springs, California.

The purpose of the public hearing is to consider a proposed water replenishment assessment to be levied by the Desert Water Agency upon all water production, except as hereinafter provided, within the following described Area of Benefit:

That portion of the Whitewater River Subbasin of the Upper Coachella Valley Groundwater Basin lying within the boundaries of the Desert Water Agency.

The proposed replenishment assessment will apply to both groundwater extractions and surface water diversions within or affecting the Area of Benefit. Minimal pumpers producing less than 10 AF/Yr, and diverters of stream flow that do not diminish said flow in excess of 10 AF/Yr, will be exempt from the replenishment assessment. Production of water pursuant to any right to divert surface flow, which has been determined in a statutory adjudication proceeding, specifically, the Whitewater River Adjudication, will also be exempt from assessment.

The purpose of the proposed assessment is to provide funds for fiscal year 2016/2017 to replenish groundwater supplies within the Area of Benefit. The Consulting Engineer of the Desert Water Agency has concluded that such groundwater supplies are in a condition of overdraft, and that the Agency should continue to request its maximum Table A water allocation of State Water Project water (and to exchange it for Colorado River water pursuant to an exchange agreement with the Metropolitan Water District of Southern California) for replenishment purposes.

The Consulting Engineer specifically recommends that the Agency request its maximum annual Table A allocation for 2016 and 2017 of 55,750 AF/Yr, and that the proposed 2016/2017 replenishment assessment rate for the Whitewater River Subbasin remain at \$102.00/AF in accordance with the rates adopted by Desert Water Agency during the Proposition 218 hearing held October 19, 2010. The 2016/2017 replenishment assessment is expected to raise approximately \$3,443,520 within the Whitewater River Subbasin Area of Benefit. The replenishment assessment will be collected from all non-exempt water producers on a quarterly basis.

A copy of the engineering report prepared by the Agency's Consulting Engineer, entitled "Engineer's Report on Ground Water Replenishment and Assessment Program for the Whitewater River, Mission Creek, and Garnet Hill Subbasins, Desert Water Agency, 2016/2017", is available for inspection at the office of the Desert Water Agency, 1200 Gene Autry Trail South, Palm Springs, California.

All interested parties are invited to attend the public hearing, and be heard in support of or in opposition to the proposed assessment. Those wishing to provide written support or opposition regarding the proposed assessment may provide same to the Agency at the following address and telephone number:

Desert Water Agency  
P.O. Box 1710  
Palm Springs, CA 92263-1710  
(760) 323-4971  
Attn: Mark S. Krause, General Manager-Chief Engineer

The law requires that the Board of Directors make specific findings upon all facts relevant and material to any replenishment assessment following the June 7, 2016 public hearing, and that action to levy any such assessment be taken before July 1st of this year.

Dated: May 10, 2016

A handwritten signature in cursive script that reads "Mark S. Krause". The signature is written in dark ink and is positioned above a horizontal line.

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Mark S. Krause  
General Manager-Chief Engineer  
DESERT WATER AGENCY

Copies of the  
Engineer's Reports on the  
  
2016 / 2017  
Groundwater Replenishment  
Assessment Program for  
  
Mission Creek Subbasin  
Whitewater River Subbasin  
Garnet Hill Subbasin  
  
are available for review  
upon request

May 17, 2016



**STAFF REPORT  
TO  
DESERT WATER AGENCY  
BOARD OF DIRECTORS**

**MAY 17, 2016**

**RE: REQUEST ADOPTION OF RESOLUTION NO. 1130  
EXTENDING THE AGENCY'S SERVICES PRIORITY POLICY FOR  
LOWER INCOME DEVELOPMENTS IN ACCORDANCE WITH  
GOVERNMENT CODE SECTION 65589.7**

On October 7, 2005, Governor Schwarzenegger signed SB 1087 into law, which became effective on January 1, 2006. The law required that developments which include housing units for lower income households be given priority when requesting water and sewer services.

In addition to the priority service requirement, providers of water and sewer service were required to adopt written policies and procedures, no later than July 1, 2006 and at least once every five years thereafter.

On June 20, 2006, the Board adopted Resolution No. 931, approving a services priority policy for lower income developments in compliance with SB 1087. On August 2, 2011, the Board adopted Resolution No. 1048 extending that policy for another five years.

It is Staff's recommendation that the Board adopt Resolution No. 1130 extending that policy again, for another five years, as required by law.

## **RESOLUTION NO. 1130**

### **RESOLUTION OF THE BOARD OF DIRECTORS OF DESERT WATER AGENCY EXTENDING SERVICES PRIORITY POLICY FOR LOWER INCOME DEVELOPMENTS**

**WHEREAS**, Government Code Section 65589.7 requires providers of water and sewer services to grant priority for these services to “proposed developments that include housing units for lower income households;” and

**WHEREAS**, the Desert Water Agency is a water and sewer service provider subject to the requirements of Section 65589.7; and

**WHEREAS**, Section 65589.7 defines “proposed developments that include housing units for lower income households” as developments that include dwelling units to be sold or rented to lower income households, as defined in Section 50079.5 of the Health and Safety Code, at an affordable cost, as defined in Section 50052.5 of the Health and Safety Code, or an affordable rent, as defined in Section 50053 of the Health and Safety Code; and

**WHEREAS**, Section 65589.7 further requires that water and sewer providers adopt a written policy with specific objective standards for meeting the priority requirement for lower income developments no later than July 1, 2006, and at least once every five years thereafter; and

**WHEREAS**, the Board of Directors of Desert Water Agency adopted Resolution No. 931 on June 20, 2006 setting forth a written policy to ensure that developments with lower income developments would receive service priority in accordance with Section 65589.7; and

**WHEREAS**, the Board of Directors adopted Resolution No. 1048 on August 2, 2011, extending the same policy for another five years pursuant to Government Code Section 65589.7; and

**WHEREAS**, this Board now wishes to extend the same policy for another five years, again pursuant to Government Code Section 65589.7;

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Directors of Desert Water Agency as follows:

**Section 1. Policy.** In accordance with Government Code Section 65589.7, Desert Water Agency shall grant water and sewer service propriety to any “proposed developments that include housing units for lower income households.” For purposes of this policy, “proposed developments that include housing units for lower income households” shall be developments that include dwelling units to be sold or rented to lower income households, as defined in Section 50079.5 of the Health and Safety Code, at an affordable cost, as defined in Section 50052.5 of the Health and Safety Code, or an affordable rent, as defined in Section 50053 of the Health and Safety Code.

**Section 2. Repeal of Conflicting Resolutions or Policies.** All prior resolutions or policies inconsistent with this Resolution are hereby repealed but only to the extent that they conflict with this Resolution.

**Section 3. Effective Date.** This Resolution is effective upon its adoption.

**ADOPTED** this 17<sup>th</sup> day of May, 2016.

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James Cioffi, President  
Board of Directors

ATTEST:

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Kristin Bloomer, Secretary-Treasurer  
Board of Directors

**STAFF REPORT  
TO  
DESERT WATER AGENCY  
BOARD OF DIRECTORS**

**MAY 17, 2016**

**RE: LOCAL AGENCY FORMATION COMMISSION ELECTION PROCEEDINGS  
(BALLOT)**

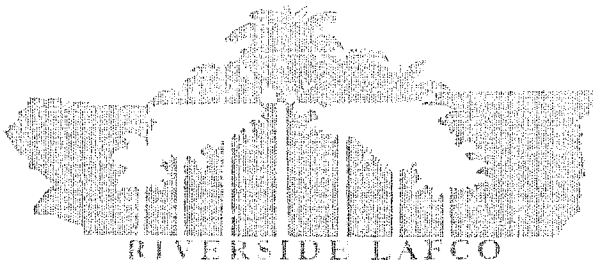
Attached for the Board's review are the ballot instructions for Special District Member of the Local Agency Formation Commission for the position of the Regular Special District Member (Eastern Riverside County) and Alternate Special District Member for LAFCO with both terms running through May 4, 2020.

A total of three nominations were received for the position of Regular Member. The nominees are: Margit Chiriaco Rusche (Chiriaco Summit Water District), Kristin Bloomer (Desert Water Agency), and Nancy Wright (Mission Springs Water District).

A total of four nominations were received for the position of Alternate Member. The nominees are: Gail Paparian (Banning Library District), Heather Garcia (Chiriaco Summit Water District), Dan Hughes (Beaumont-Cherry Valley Recreation & Park District), and Robert Stockton (Western Municipal Water District).

It is requested that the Board provide direction on the selection for the position of: 1) Regular Special District Member (Eastern Riverside County, and 2) Alternate Special District Member.

As presiding officer, President Cioffi is authorized to cast a ballot. Ballots must be received by LAFCO by 5:00 p.m., Friday, June 10, 2016.



Sent Via Certified Mail ☐  
Sent Via Email ☒

**BALLOT INSTRUCTIONS FOR SPECIAL DISTRICT MEMBER AND  
ALTERNATE SPECIAL DISTRICT MEMBER OF THE LOCAL AGENCY  
FORMATION COMMISSION**

To Special District Selection Committee Members:

As previously announced, a physical meeting of the Special District Selection Committee (SDSC) is not feasible at this time and the selection proceedings are being conducted by mail/email. A nomination period was opened March 29, 2016 and closed April 29, 2016. Specifically, the two positions are Regular Special District Member and Alternate Special District Member.

A total of three nominations were received for the position of Regular Member - Eastern Area. Although nominees must have come from the eastern area of the County, all members of the SDSC may cast ballots for this position regardless of geography. Additionally, all SDSC members may vote for the Alternate Special District Member. Enclosed you will find your ballot. Please make no more than one selection for each position. Only the presiding officer or another board member authorized by your board of directors to vote may cast the ballot. Board members designated by their district board to vote in place of the presiding officer must provide that authorization (in the form of a resolution or minute order) to LAFCO no later than the time the ballot is cast. District managers or other staff members may not vote.

This ballot also includes a question regarding how future elections will be conducted. Traditionally, the manner by which the SDSC elections were conducted required the winning candidate to receive a majority of votes cast. If no candidate received a majority of votes cast on the first ballot, a second ballot runoff election was required. Until recently, the statute had been silent on this issue.

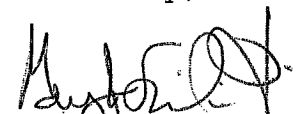
Effective January 1, 2015, Gov. Code Sec. 56332 (f) was amended to state that the candidate receiving the most votes will be elected, unless another procedure has been adopted by the selection committee. The selection committee is being asked to decide whether future elections will be decided by a plurality or majority of votes cast. If a majority vote is selected an automatic runoff procedure will be utilized.

On each segment of the ballot, the presiding officer or designated voting member must print his or her name on the ballot as well as sign and date the certification indicating he or she is authorized to vote for the district. A quorum, consisting of ballots from a majority of the SDSC members, is required to conduct a valid election. For this election, the candidate receiving the highest number of votes cast for each position will be elected.

Once you have completed your ballot, you must deliver it to the LAFCO office at 3850 Vine St., Suite 240, Riverside, CA 92507 prior to 5:00 p.m. Friday, June 10, 2016. It is very important that all voting members transmit their completed ballot to LAFCO by the date specified in order to achieve a quorum. We suggest that ballots be returned by certified mail. We must receive a ballot with an original signature. Photocopies and faxes will not be accepted. However, if you have previously authorized us to deliver your ballot materials via email, you may return a scanned copy of the signed ballot by email to [evaldez@lafco.org](mailto:evaldez@lafco.org).

If you have any questions, please contact our office.

Sincerely,



George J. Spiliotis  
Executive Officer  
May 10, 2016

**BALLOT**

Regular Special District Member of the Local Agency Formation Commission – Eastern Riverside County  
(Term running through May 4, 2020)

Name of District:

Please vote for one: ☐ Margit Chiriaco Rusche (Chiriaco Summit Water District)  
☐ Kristin Bloomer (Desert Water Agency)  
☐ Nancy Wright (Mission Springs Water District)

Certification of voting member:

I, \_\_\_\_\_ hereby certify that I am (check one):  
 Print Name Here

- ☐ the presiding officer of the above named district.
- ☐ a member of the board of the above named district authorized by the board to vote in place of the presiding officer. [Authorization ☐ previously transmitted ☐ attached]

\_\_\_\_\_  
 Signature

\_\_\_\_\_  
 Date

Ballot must be received by LAFCO by 5:00 p.m. Friday, June 10, 2016 at 3850 Vine Street, Suite 240, Riverside, CA 92507.

**BALLOT**

Alternate Special District Member of the Local Agency Formation Commission  
(Term running through May 4, 2020)

Name of District:

Please vote for one: ☐ Gail Paparian (Banning Library District)  
☐ Heather Garcia (Chiriaco Summit Water District)  
☐ Dan Hughes (Beaumont-Cherry Valley Recreation & Park District)  
☐ Robert Stockton (Western Municipal Water District)

Certification of voting member:

I, \_\_\_\_\_ hereby certify that I am (check one):  
 Print Name Here

- ☐ the presiding officer of the above named district.
- ☐ a member of the board of the above named district authorized by the board to vote in place of the presiding officer. [Authorization ☐ previously transmitted ☐ attached]

\_\_\_\_\_  
 Signature

\_\_\_\_\_  
 Date

Ballot must be received by LAFCO by 5:00 p.m. Friday, June 10, 2016 at 3850 Vine Street, Suite 240, Riverside, CA 92507.

## **BALLOT**

### **Conduct of Future Special District Selection Committee Elections**

Future elections conducted by the Executive Officer of the Riverside Local Agency Formation Commission or designee on behalf of the Special District Selection Committee shall be decided in the following manner:

- ☐ The candidate receiving the highest number of votes among nominees shall be elected. In the event of a tie, the winner shall be decided by a coin toss.
- ☐ The candidate receiving a majority of votes cast shall be elected. If more than two candidates have been nominated, the Executive Officer shall conduct the election using instant runoff voting, also known as ranked choice voting.

*Ballot must be received by LAFCO by 5:00 p.m. Friday, June 10, 2016 at 3850 Vine Street, Suite 240, Riverside, CA 92507.*



**DESERT WATER AGENCY  
MEDIA INFORMATION  
APRIL 2016**

<b>DATE</b>	<b>PACKET PAGE</b>	<b>MEDIA SOURCE</b>	<b>ARTICLE</b>
04/04/16	1-4	LA TIMES	A Delta Tunnel Project's Lofty Ambitions Have Been Scaled Back
04/05/16	5-6	THE DESERT SUN	Hazardous Metal Found In Westside Elementary Water
04/05/16	7	PRESS ENTERPRISE	Inland Water Savings Lag; Heat Is Cited
04/07/16	8	PRESS ENTERPRISE	Water District Eases Restrictions
04/08/16	9	PRESS ENTERPRISE	State Board Eases Water Use Restrictions
04/10/16	10-11	PRESS ENTERPRISE	Suppliers Pushed To Ease Water Targets
04/10/16	12-13	PRESS ENTERPRISE	Stability Of Vail Dam On Shaky Ground
04/11/16	14-15	PRESS ENTERPRISE	Suppliers Pushed To Ease Water Targets
04/14/16	16-24	THE DESERT SUN	What The Loss Of Snowpack Means For Water Supplies
04/22/16	25-27	THE DESERT SUN	Water Agencies Urge California To Relax Drought Targets
04/26/16	28-29	THE DESERT SUN	California Drought: Using Fines To Fuel Conservation
04/26/16	30-32	THE DESERT SUN	California Weighs Sharing 'Pain' Of Colorado River Cuts
04/27/16	33-34	LA TIMES	This Gated Community Insists California's Drought Is Over, Wants Green Lawns Again

## A delta tunnel project's lofty ambitions have been scaled back

Bettina Boxall, April 4, 2016

A dog trotted down the middle of a levee road as red-winged blackbirds darted in and out of the reeds. A few fishermen dangled their baited lines into the muddy brown water.

Only a close look at the Middle River revealed anything amiss in this part of the Sacramento-San Joaquin Delta. Instead of flowing north toward San Francisco Bay, as nature intended, the Middle was headed south. On the other side of Bacon Island, the Old River was doing the same thing.

The backward flow of these two obscure channels is at the core of a proposal to build California's biggest water project in decades: a \$15-billion diversion and tunnel system in the delta, the ecologically failing hub of the state's waterworks.

The long-planned project would draw directly from the Sacramento River as it enters the north delta and send water to enormous pumping plants that now pull supplies entirely from the south delta. The intensive pumping that now takes place causes the environmentally harmful reverse flows that have triggered increasingly tight limits on water deliveries to San Joaquin Valley growers and Southern California cities.

In news releases and tweets, tunnel backers have lamented the "lost" and "wasted" water from the Sacramento River that could have been pumped south during this year's winter storms if only the delta had a "modern delivery system." About 486,000 acre-feet — or enough water to serve 3.6 million people for a year — could have been captured, the project website proclaims in big, bold numbers.

But scroll down on the website, below those impressive figures, and you now find a cautionary note: "The project on average over time is not expected to provide a significant increase in water deliveries from the Delta."

The language reflects a major scaling back of the project's once lofty ambitions.

### Delta tunnels

Two 35-mile-long tunnels would divert Sacramento River water to government pumping plants at Clifton Court Forebay. The proposal would reduce direct withdrawals from the south delta that endanger native fish.

Sources: California Natural Resources Agency, Mapbox, OpenStreetMap

@latimesgraphics



The San Joaquin Valley irrigation districts and Southland water agencies that would pay for the project originally envisioned it as a grand delta fix that would push water exports back to — or even above — their peak in the early 2000s of an average 5.3 million acre-feet a year.

But as the project has gone through a protracted environmental review by skeptical federal fishery agencies, reality has set in. Instead of cranking open the pumps, the tunnels will, at best, do little more than maintain the status quo.

"This idea that it's all going to be resolved is fiction," said state Department of Water Resources Director Mark Cowin, whose agency is overseeing the proposal along with the U.S. Bureau of Reclamation.

The tunnels would lessen the damaging reverse flows. But they would not cure the delta's other ecological ailments, many of which stem from the exports and upstream diversions that have profoundly altered delta hydrology and robbed the ecosystem of about half its natural flow to the bay.

Nor would the project escape the regulations concerning endangered species and water quality that will probably grow tougher in response to the delta's cascading environmental woes.

If the tunnels are built, state modeling indicates future delta exports to the valley's thirsty fields and Southern California's faucets would average 4.9 million acre-feet a year — only a small improvement over recent averages.

Without the project, however, Cowin warns that number could fall by 1 million acre-feet — to roughly 1970s levels.

Officially named the California WaterFix, the project has become less a fix than a multibillion-dollar tourniquet.

The Old and Middle rivers are in the south end of the delta. There, the state and federal pumping plants draw water to fill the highway-size California Aqueduct and the Delta-Mendota Canal that carry supplies south.

The harder the enormous pumps work, the stronger their wrong-way pull on south delta channels and native fish. Migrating chinook salmon and steelhead wander off course into the mouths of predators or to the dead-end of the pumps.

The finger-size delta smelt — declared a threatened species by the federal government — follow the unnatural flows away from good spawning habitat, edging ever closer to extinction.

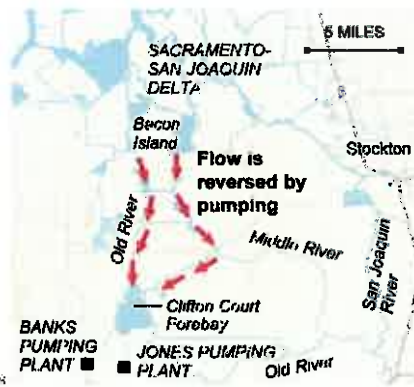
Two in three fish drawn into the south delta by the pumping perish, according to government biologists.

Under WaterFix, the new water diversion point on the Sacramento River in the north delta would feed two massive 35-mile tunnels supplying the pumps. Thus, less water would be drawn directly from the south delta, reducing the problematic reverse flows.

It is a variation of an old idea. Decades before the Endangered Species Act was enacted, when delta smelt were so plentiful they were used as bait, water managers foresaw problems with using the delta as a water pipeline for the south.

### Replumbing the delta

The proposed delta tunnels would reduce direct withdrawals from the south delta that cause water channels to flow backward toward the pumps, endangering native fish.



Sources: California Natural Resources Agency, Mapbox, OpenStreetMap  
Paul Duginski / gglatimeographics

By the 1960s, government planners were pushing plans for a peripheral canal to carry supplies from California's biggest river, the Sacramento, around the delta to existing federal pumps and the soon-to-be built State Water Project pumping plant.

Among the benefits cited in a 1966 state document: Improvements in the quality of exported water and a halt to "damage to the delta fishery."

But it was cheaper to use the delta. The canal wasn't built. The proposal resurfaced again years later, only to be killed by voters in a 1982 statewide referendum that played on California's perennial north-south water tensions.

This time, opposition is centered in the delta, where the landscape of levee-ringed farm islands and curling water channels hasn't changed much in a century.

"Save the delta. Stop the tunnels," signs are staked next to delta roads. Local growers don't want a mammoth, years-long construction project mucking up islands in the eastern delta. And most of all, they don't want the tunnels sucking up good-quality Sacramento River water before it gets to their irrigation ditches.

Environmentalists worry about salmon losses at the three big river intakes that would be built near Hood, Calif. And state assurances to the contrary, they are convinced the tunnels will inevitably be used to suck more water from the delta watershed.

The nerve center of the State Water Project and the federal Central Valley Project is housed in a nameless building in a Sacramento suburb, where managers in the Joint Operations Center monitor data around the clock and relay orders to the field offices that move water supplies around California.

Crucial to that movement are delta conditions, which are religiously measured, recorded and scrutinized.

How much water is being released from upstream reservoirs in the Sacramento and San Joaquin river watersheds? How much fresh water is flowing into the delta? How much is going out to San Francisco Bay?

What are the salinity levels? How muddy is the water? How many protected fish have been collected at the pumps? How strong are the reverse flows in the Old and Middle rivers?

The reverse flow is measured in negative numbers on either side of Bacon Island and plays such a dominant role in exports that Cowin said he can recite it any minute of the day.

It is by no means, however, the only limit on delta pumping.

In the final months of last year and the early days of January the pumps were turned down to meet water quality and other state standards. If not enough fresh water flows out of the delta to the bay, salty water can intrude, tainting delta supplies.

Then it started raining and "we were meeting the outflow, no problem," recalled state water operations chief John Leahigh. Exports bumped up, though they were still capped to protect out-migrating salmon.

By mid-January, storm runoff had driven up the turbidity levels that trigger delta smelt movement. Daily sampling surveys found some of the translucent little fish near the mouths of the Old and Middle.

See the most-read stories this hour >>>

To avoid drawing smelt to the pumps, the pumping rate limit was tightened and exports dipped. When smelt were caught at the pumps Jan. 21, the exports were further restricted, only to rise again when turbidity levels dropped during February's dry spell.

On a late February afternoon, the drone of 100,000 horsepower of pumping muscle filled the federal C.W. "Bill" Jones Pumping Plant not far from the walled subdivisions of Tracy, Calif.

Four of the plant's six pumps were discharging delta water into the head of the 117-mile-long Delta-Mendota Canal for a trip to the San Joaquin Valley.

At the nearby diversion point on the Old River, a network of screens guided fish into pipes that carried them to large collection tanks. There they were held until tank trucks transported them to the western delta for release.

As part of a routine check for protected species, a worker hoisted a cone-shaped bucket out of one of the holding tanks and emptied it into a rectangular sorting tray.

Biologist Rene Reyes dipped a net into the water, scooping up a baby catfish. Next came a couple of bluegills and six silversides. "All introduced species, very hardy," he said.

No smelt. No salmon. It was a good day for water exports.

[bettina.boxall@latimes.co](mailto:bettina.boxall@latimes.co)

## Hazardous metal found in Westside Elementary water

Kristen Hwang, The Desert Sun, April 5, 2016

Officials have detected levels of chromium-6 in the drinking water at Westside Elementary School above the level deemed safe by the California Department of Public Health.

During routine testing carried out over 2015 and part of 2016, officials found 0.013 milligrams per liter of chromium-6 in the water at Westside Elementary. In 2014 the state adopted regulations requiring public drinking water to have chromium-6 levels below 0.010 milligrams per liter. The metallic element when consumed at high levels over long periods of time has been linked to kidney and liver damage as well as cancer.

Westside Principal RoseMary Hyder said the chromium-6 found in the water did not represent an emergency and that the Riverside County Department of Environmental Health has told school officials that they may leave the drinking fountains turned on. Even so, the school is taking precautions and providing bottled water in every classroom, in the cafeteria and in the library, Hyder said.

"We were very proactive in letting our parents and our community know what was happening. I explained to parents how the state changed the regulations, and it has gone very smoothly," Hyder said.

The school sent a letter to parents last week, as well as, two automated phone calls. On Monday morning, Westside held a walk-in information session with the district's facilities director and with representatives from the county department of environmental health. Hyder said no parents came to the school with concerns Monday morning, which she credits to the information school officials sent

Westside Elementary is the only school in Coachella Valley Unified School District that uses well water. The school district has approved plans to connect the school to the Coachella Valley Water District by August 2017. Construction, which is slated to begin by June 2016, will cost between \$800,000 to \$1 million, according to district spokeswoman Francinni Zabata.

"We're providing bottled water mainly because of the construction that is going to take place. Whatever happens we're ready to go, and our students always know that they're safe at Westside," Hyder said.

Although there is no legal requirement for the school to turn off drinking fountains, the department of environmental health recommends that they do so, said Mark Abbott, land use and water supervisor with the Indio office of environmental health. Abbott added that his department approved the district's plan to provide bottled water upon request and to bring the school's water system into compliance by 2017, a timeline he called "aggressive."

But, the chromium-6 found in the water is not cause for undue alarm, Abbott said.

"We're talking parts per billion. A part per billion is pretty close to the equivalent to a drop in an Olympic-sized swimming pool," he said.

California is the only state to regulate chromium-6 specifically, allowing a maximum contaminant level of 10 ppb in drinking water. The U.S. Environmental Protection Agency doesn't regulate chromium-6 by itself, but requires that any level of chromium in drinking water fall below 100 ppb.

Chromium-6 is a naturally-occurring element in the valley groundwater. The Coachella Valley Water District plans on beginning construction for a \$250-million water treatment facilities plan this summer, said Heather Engel, CVWD director of communication and conservation in an email. Roughly one-third of CVWD's wells have chromium-6 levels above the state standard. Construction of the water treatment facilities is expected to be completed in late 2019 and CVWD is also upgrading three existing ion exchange treatment plants that are currently used to remove arsenic and chromium-6 from the water, Engel said.

The cities of Coachella and Indio are also grappling with how to comply with the state's regulations and where to find the money to build water treatment facilities.

# INLAND WATER SAVINGS LAG; HEAT IS CITED

By SUZANNE HURT

STAFF WRITER

Californians are close to meeting the governor's 25 percent water conservation mandate, yet some Inland providers fared much worse, according to figures released Monday by state officials.

Statewide cumulative savings from June through February were 23.9 percent. However, eight Inland suppliers missed savings targets by 10 to 15 percentage points.

Only one among the region's 21 largest suppliers – Lake Hemet Municipal Water District, with 37.8 percent savings – met or exceeded cumulative goals for the nine months since Gov. Jerry Brown's mandate began, the State Water Resources Control Board reported.

In monthly water usage, San Jacinto saved 25.4 percent in February compared to the same month in 2013, but the rest of the Inland providers saved 15.1 percent or far less. Some districts actually used far more water.

In a media conference call Monday, state water board Chairwoman Felicia Marcus described California water savings as a "final four performance" following nine months of extraordinary effort.

She said officials may lift statewide emergency mandates that were extended through October.

The Inland region faces more challenges due to heat, dryness and having larger landscaped lots than denser coastal areas.

A lot of the area's water suppliers didn't pass conservation ordinances until October and November, after peak heat, said Max Gomberg, a climate and conservation manager for the Water Resources Control Board.

"I think we have seen the Inland Empire struggle with it," he said. "Having a lot of suppliers miss their target – it does speak to a lack of conservation by some. But also to climate and how areas are developed."

State residents have saved nearly 1.19 million acre-feet of water from June through February, which amounts to 96 percent of the 1.24 million acrefeet goal, the water board reported.

Throughout California, February water savings were the lowest in the ninemonth period. Statewide conservation fell from 17.1 percent in January to 12 percent in February. State water officials said that's probably because that month was one of the warmest, driest Februaries of the drought.

"February 2016 was incredibly hot and dry – especially in Southern California," Gomberg said.

Officials with Yucaipa Valley Water District, which missed its cumulative target of 36 by 15 percentage points, and Eastern Municipal Water District, missing a 28 percent goal by 10 percentage points, said weather conditions in the conservation period were much different than in 2013.

Yucaipa used 11.4 percentage points more water in February and Eastern used 1.5 percentage points more.

In Eastern's service area, average daily temperatures were 14 degrees higher than 2013's and precipitation was 25 percent of 2013's totals, Eastern spokesman Kevin Pearson said.

"From what we're seeing, it's very highly weather-dependent," said Yucaipa district General Manager Joe Zoba, adding it hasn't appeared to conserve as much because the district already irrigates parks, schools and golf courses with recycled water.

Eastern board President Randy Record said its customers are cutting back to minimum use even during hot periods.

"We want to meet the goals the state board has put in place for us. But we have to be real here, too," he said.

Gomberg praised efforts by Eastern, which serves more than 550,000 customers, as an example of how suppliers implement many conservation measures yet fall short.

"Probably many of their customers were doing their part, but it didn't add up," he said.

CONTACT THE WRITER



Date: Apr 7, 2016; Section: Front Page; Page: A6

# Water district eases restrictions

EMWD's board expects a revision of state mandates on conservation.

By SUZANNE HURT

## STAFF WRITER

In what may bring relief to some Inland water users, the Eastern Municipal Water District reduced drought restrictions Wednesday.

Riverside County's largest water supplier made its move as the State Water Resources Control Board prepares to ease water-cutback goals for some suppliers.

Eastern Municipal may be among the region's first to make such changes.

The state water board is expected to issue revised conservation standards, retroactive to March 1, for qualifying suppliers today or Friday, said board spokesman George Kostyrko.

State water board Chairwoman Felicia Marcus said Monday that many communities will get lowered mandates because of rainfall, or officials may lift statewide emergency mandates altogether.

On Wednesday, Eastern Municipal's board voted 4-0 to ease restrictions with the expectation its state-mandated water conservation target will be reduced from 28 percent to 20 percent, compared to 2013, said Eastern Municipal spokesman Kevin Pearson.

"Our rate payers have been really, really good at conserving water – actually for years, but specifically, the last year," Eastern Municipal board Vice President David Slawson said.

On Monday, state water officials released water conservation figures showing only one among the Inland region's 21 largest water suppliers met or exceeded goals for potable water conservation for the nine months since a state mandate began last June.

However, water officials were ecstatic after Californians came close to meeting a 25 percent statewide water conservation mandate. Water users reached 23.9 percent in statewide cumulative savings through February.

State water officials are preparing revised watersaving standards based on adjustments the board made Feb. 2 while extending the emergency regulation through October. Original conservation mandates expired in February.

Suppliers had to apply for adjustments. The board is considering suppliers' climate, urban growth and investments in creating drought-resistant water supplies since 2013 to determine whether to lower conservation targets by up to 8 percentage points.

Inland water users who depend heavily on Northern California water may benefit from rainfall and snowmelt filling reservoirs to the north if water allocations are increased to this region. Southern California water customers also benefit from diverted Colorado River water.

Eastern, whose service area has grown by nearly 27,000 people since 2013, had a nine-month savings of 18 percent, or 10 percentage points below its mandated 28 percent savings.

The district has not received official notification of a reduced target but is basing its decision on guidelines indicating Eastern will get an 8 percent reduction, Pearson added.

Eastern expanded drought-resistant water supplies through expanded ground water desalination. The district built a facility to remove iron and manganese from brackish groundwater that will now be fed into its system by two or three wells that had been closed, Pearson said.

Under relaxed restrictions taking effect immediately, customers will be able to use a little more water outside without paying as much. Users must reduce outdoor water usage by 30 percent, rather than 70 percent as had been ordered in January, or pay more for water.

"The state was in a difficult position of trying to implement a one-size-fits-all regulation, when a one-size-fits-all regulation does not work in a state as diverse geographically as California," Slawson said.

Date: Apr 8, 2016; Section: Front Page; Page: A10

# STATE BOARD EASES WATER USE RESTRICTIONS

Many Inland suppliers will get a break on conservation targets.

By **ALEJANDRA MOLINA**

**STAFF WRITER**

The State Water Resources Control Board released new water-cutback goals Thursday afternoon, easing conservation numbers for many Inland suppliers.

The announcement comes in the wake of this week's Eastern Municipal Water District vote to ease drought restrictions, which may have been among the region's first to make such changes.

Hemet's water-cutback goals were reduced from 32 percent to 14 percent.

In Riverside, the drought restrictions were reduced from 28 percent to 25 percent.

Eastern Municipal Water District's mandates were reduced from 28 percent to 20 percent.

Eastern, whose service area has grown by nearly 27,000 people since 2013, has had a nine-month savings of 18 percent, or 10 percentage points below its previous mandated 28 per cent.

Earlier this week, state water officials released water conservation figures showing only one among the Inland region's 21 largest water suppliers met or exceeded goals for portable water conservation for the nine months since the state mandate began in June.

However, water officials rejoiced after California residents came close to meeting a 25 percent statewide water conservation mandate. Water users reached 23.9 percent in statewide cumulative savings through February.

Water managers had great hopes for a prolific El Niño this year, which was expected to be one of the strongest on record. The storm system did benefit Northern California, an important region because the lakes there supply the State Water Project that brings water to the Inland region.

Staff writer Suzanne Hurt

contributed to this report.

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## **Suppliers pushed to ease water targets**

**Utilities' joint efforts helped sway recent revision of goals for conservation**

By Suzanne Hurt, April 10, 2016

Recent rains and water conservation successes get only partial credit for state water officials' announcement Thursday, April 7, lowering some water suppliers' savings targets.

Lobbying by Inland water suppliers and others around California to persuade the State Water Resources Control Board to consider climate, growth and past efforts to reduce use and expand potable water supplies also played a role.

Public utilities and water districts have been pressing the state agency to lower the 25 percent statewide conservation mandate that took effect last June during California's fourth year of severe drought, or to make individualized adjustments after suppliers were ordered to meet savings of up to 36 percent.

Savings mandates were based on what each supplier's demands were during a nine-month period in 2013, Eastern Municipal General Manager Paul Jones said.

Large Inland suppliers including Perris-based Eastern Municipal Water District, Riverside Public Utilities and Rancho California Water District, based in Temecula, gave joint testimony in October and February asking the board to revise the regulation to address climate, housing and landscape differences between coastal and Inland communities, or Northern and Southern California.

"We had many agencies throughout the state that felt that those regulations were inequitable," Jones said. "We all worked together because we had common interests and felt our efforts weren't being recognized."

Eastern Municipal and Western Municipal Water District of Riverside coordinated an effort among multiple agencies in Southern California and other parts of the state to develop recommendations for regulation adjustments to address those issues.

They submitted the proposals in joint letters before the board's reconsideration of the regulation in February, said Jones and Rancho California Water District General Manager Jeff Armstrong.

Armstrong applauded the water resources control board for heeding suppliers' concerns in February while extending the emergency conservation regulation for another nine months. The board issued revised conservation standards for some suppliers Thursday.

"I think they listened to water agencies across the state to formulate their modifications," Armstrong said.

Rancho California officials traveled to Sacramento and met with water resources control board staff and a board member in December to propose modifications that could be made in February to the emergency regulation to cover the next nine months beginning in March.

At Eastern Municipal's invitation, state water board Chairwoman Felicia Marcus and board member Steve Moore toured the facility and its expanded groundwater desalination facilities.

District officials showed off their new facility that removes iron and manganese from brackish groundwater, enabling two or three wells to be reopened. On Thursday, Eastern's water savings target was lowered from 28 to 20 percent.

Only one among the region's 21 largest suppliers was able to meet or exceed its nine-month water savings mandate, the state disclosed last Monday.

Riverside Public Utilities, which missed its 28 percent mandate by 7 percentage points, must now save 25 percent compared to 2013.

The utility, whose supply comes entirely from groundwater, has a June hearing in a pending lawsuit seeking a 4 percent savings mandate. Riverside uses no Northern California water “imported” through the state water project, said Deputy General Manager Kevin Milligan.

State officials believe Riverside’s water use or savings impact the state’s groundwater system.

An April 20 public workshop is now set. On May 18, the water control board will consider modifying the extended emergency regulation. Staff members are creating a “framework” for permanent water conservation regulations that will be unveiled May 3, board spokesman George Kostyrko said.

#### **NEW CONSERVATION GOALS**

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Here are some of the latest conservation figures released Thursday, April 7, by the State Water Resources Control Board:

<b>Banning</b> Previous32%  New28%	<b>Norco</b> Previous36%  New36%	<b>Rubidoux Comm. Services District</b> Previous28%  New20%
<b>Beaumont-Cherry Valley Water District</b> Previous36%  New32%	<b>Ontario</b> Previous24%  New20%	<b>San Bernardino, City</b> Previous28%  New25%
<b>Colton</b> Previous20%  New18%	<b>Perris</b> Previous24%  New24%	<b>San Jacinto</b> Previous32%  New30%
<b>Corona</b> Previous28%  New28%	<b>Rancho California Water District</b> Previous36%  New32%	<b>Western Municipal Water District of Riverside</b> Previous32%  New28%
<b>East Valley Water District</b> Previous28%  New22%	<b>Redlands</b> Previous36%  New33%	<b>Yucaipa Valley Water District</b> Previous36%  New34%
<b>Eastern Municipal Water District</b> Previous28%  New20%	<b>Rialto</b> Previous28%  New26%	
<b>Loma Linda</b> Previous32%  New30%	<b>City of Riverside</b> Previous28%  New25%	

## STABILITY OF VAIL DAM ON SHAKY GROUND

A state agency has flagged the dam for upgrades to guard against an earthquake, but the Rancho California Water District, which will be on the hook to pay for the work, disputes some of the state's findings.

Aaron Claverie, April 10, 2016

The Rancho California Water District is looking into the feasibility of building a new dam at Vail Lake to augment the existing structure, a 68-year-old mass of concrete that has been deemed “deficient” by a state agency.

The dam, about 10 miles east of Temecula at the northwest corner of the lake, was flagged by the state's Division of Safety of Dams in early 2013.

In the event of a large earthquake on one of the two faults in the region – a temblor of 7.4 magnitude or greater – there's a chance the dam could fail, the agency stated in its report.

District board member Danny Martin, elected in 2015, said he has been told there's no record of an earthquake of that size magnitude in the region and that the dam has overflowed only twice in its 68 years.

“It's a very remote possibility, very remote,” Martin said about the odds of the dam failing.

The district hasn't issued public notification about the state's findings because there is no imminent danger.

“There were quite a few other dams facing the same thing because a lot of the regulations have changed,” said district spokeswoman Meggan Valencia.

The dam, which stands 152 feet, was built on Temecula Creek in 1948-49 by the Vail Co. to service its ranching business.

The water district acquired the dam in 1978 from the Kaiser Corp. and Macco Realty Co. when it bought the lake to boost supply for its customers, which includes most of Temecula, a sliver of Murrieta and the unincorporated communities of the Temecula Valley Wine Country and De Luz.

In 2014, the district bought the land surrounding the lake in a bankruptcy proceeding to help preserve water quality.

There are two active fault zones of the San Andreas fault system in the region: the San Jacinto fault zone to the east of the lake and the Elsinore fault zone to the west. The Elsinore zone is closer, which means it is considered the “controlling fault” for purposes of the safety studies.

In its report, the Division of Safety of Dams said the stresses induced by strong ground shaking during an earthquake would exceed the dam's allowable strengths on the downstream (western) face of the structure.

“The extent and duration of the overstress is such that a failure of the dam could occur during a maximum credible earthquake,” the report states.

The land surrounding the lake is mostly vacant, aside from an RV resort to the south and a winery and ranches to the west.

Per the state's rules, the district sought a second opinion by an independent consultant, which confirmed the state's findings. The consultant, Orange-based URS Corp., has presented two options to retrofit the dam.

Martin said both options are expensive. Option A, which involves “lowering” the dam by carving a 170-foot wide notch in the center, could cost around \$50million. Option B, raising the dam by 6 feet and reinforcing some of the concrete, was estimated at \$38.6 million.

In late March, the district’s board of directors authorized increasing the budget for the consultant – which now stands at \$710,000 – and asked the company to determine how much it would cost to build a new dam.

The district has until Oct.1 to select a plan, according to the state agency.

Martin said he hopes the analysis includes the possibility of building a hybrid dam that uses the silt from the lake that the district intends to remove. He also wants to know precisely how dire the situation is and when the work needs to be completed.

“Do we need to do it all right now, or can we parcel it out?” he asked. “I just want to get the best job done at the cheapest price.”

**Contact the writer:** 951-368-9698 or [aclaverie@pe.com](mailto:aclaverie@pe.com)

## **VAIL DAM FACTS**

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- It was built in 1948 and 1949 by the Vail Co. to create a namesake lake for its ranching business.
- It has a crest length of 790 feet.
- It holds 42,680 acre-feet of water, enough to serve around 10,000 families a year.
- The highest arch of the dam rises 152 feet from the crest to the lowest point in the foundation.
- The Rancho California Water District bought the structure in 1978 when it acquired the lake to boost its supply of stored water.

Date: Apr 11, 2016; Section: Local Extra - Southwest; Page: B1

# Suppliers pushed to ease water targets

Utilities' joint efforts helped sway recent revision of goals for conservation.

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## STAFF WRITER

Recent rains and water conservation successes get only partial credit for state water officials' announcement

Thursday

lowering

some water suppliers'

savings targets.

Also playing a role was lobbying by Inland water suppliers and others around California to persuade the State Water Resources Control Board to take into consideration climate, growth, and past efforts to reduce use and expand potable water supplies.

Public utilities and water districts have been pressing the state agency to lower the 25 percent statewide conservation mandate that took effect in June during California's fourth year of severe drought, or to make individualized adjustments after suppliers were ordered to meet savings of up to 36 percent.

Savings mandates were based on what each supplier's demands were during a nine-month period in 2013, Eastern Municipal General Manager Paul Jones said.

Large Inland suppliers, including Perris-based Eastern Municipal Water District, Riverside Public Utilities and Rancho California Water District of Temecula, gave joint testimony in October and February asking the board to revise the regulation to address climate as well as housing and landscape differences between coastal and Inland communities, and between Northern and Southern California.

"We had many agencies throughout the state that felt that those regulations were inequitable," Jones said. "We all worked together because we had common interests and felt our efforts weren't being recognized."

Eastern Municipal and Western Municipal Water District of Riverside coordinated an effort among multiple agencies in Southern California and other parts of the state to develop recommendations for regulation adjustments to address those issues.

They submitted the proposals in joint letters before the board's reconsideration of the regulation in February, said Jones and Rancho California Water District General Manager Jeff Armstrong.

Armstrong applauded the State Water Resources Control Board for heeding suppliers' concerns in February while extending the emergency conservation regulation by nine months. The board issued revised conservation standards for some suppliers Thursday.

"I think they listened to water agencies across the state to formulate their modifications," Armstrong said.

Rancho California officials traveled to Sacramento in December and met with board staff and a board member to propose modifications that could be made in February to the emergency regulation to cover the nine months beginning in March.

At Eastern Municipal's invitation, state water board Chairwoman Felicia Marcus and board member Steve Moore toured the facility and its expanded groundwater desalination facilities.

District officials showed off their new facility that removes iron and manganese from groundwater, enabling two or three wells to be reopened. Eastern's water savings target was lowered Thursday from 28 percent to 20 percent.

Only one among the region's 21 largest suppliers was able to meet or exceed its nine-month water savings mandate, the state disclosed April 4.

Riverside Public Utilities, which missed its 28 percent mandate by 7 percentage points, must now save 25

percent.

The utility, whose supply comes entirely from groundwater, has a June hearing in a pending lawsuit seeking a 4 percent savings mandate. Riverside uses no Northern California water "imported" through the State Water Project, said Deputy General Manager Kevin Milligan.

State officials believe Riverside's water use or savings affect the state's groundwater system.

A public workshop is set for April 20. On May 18, the water control board will consider modifying the extended emergency regulation. Staff members are creating a "framework" for permanent water conservation regulations that will be unveiled May 3, board spokesman George Kostyrko said.

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## What the loss of snowpack means for water supplies

*Ian James, April 14, 2016*

Among firs and cedars high in the Sierra Nevada, scientists are using an array of instruments to monitor the health of the forest, measure the snowpack and track the water that melts and seeps into the soil.

As they collect data, they're taking snapshots of a landscape in the midst of major changes.

When Erin Stacy checked the instruments last month at one of the research stations she manages in the Sierra National Forest, her boots crunched through snow that blanketed meadows and lay in patches among the trees. But the snow was melting early near the end of a record-warm winter. And in the future, there's likely to be much less snow, if any, on the ground here.

Already, as the winters have grown warmer, the snow has been melting earlier after storms pass. It's just the beginning of a shift that is projected to dramatically shrink the snowpack in the mountains as global warming intensifies.

"We're going to get a smaller snowpack. It's going to melt out earlier and it might melt out more times during the winter, and that has some pretty big implications for people downstream – all of our water users downstream," Stacy said, standing beside a sensor that measures snow depth. "The snowpack acts as a reservoir for us, and if we don't have that reservoir, then we need to find some way to store more water or to use less water."

Across the continental United States, measurements from sensors since the 1950s show that the average snowpack has been decreasing in most areas as temperatures have risen. Precipitation that used to fall as snow is increasingly falling as rain. Snowlines in the mountains have begun creeping upward. And scientists have estimated that for each 1 degree Fahrenheit of warming in mountain regions, the snowpack could retreat upslope by a distance of roughly 300 feet in elevation.

The impacts are expected to vary by location. But across the mountains of the West, the snowpack is already melting about a week earlier on average as compared to the mid-20th century.

The decreases in snow and the earlier runoff pose especially critical challenges for western states, where many areas rely heavily on snowmelt for water supplies and where the demands of growing populations, agriculture and industries are already draining rivers and depleting aquifers.

As the planet heats up, the changing climate is projected not only to shrink the snow and melt the glaciers, but also to unleash more extreme weather ranging from floods to longer-lasting and more intense droughts. The severe drought that has ravaged California for more than four years has coincided with record heat, and it appears to offer a preview of what the hotter droughts of the future will look like.

"It's pretty dire. I think we need to start moving pretty quickly, whether that's water conservation or even just more conversations about it," said Stacy, a scientist with the Sierra Nevada Research Institute at the University of California, Merced. "We're going to have to figure out how to deal with water downstream differently."

Just how radically water supplies are altered will depend in part on whether the world takes significant steps to slow emissions of carbon dioxide and other planet-warming pollutants. But even if the world successfully limits warming to the goal of 2 degrees Celsius set last year in Paris – a target that appears increasingly difficult to achieve – snowpack-dependent regions from the Pacific Northwest to the Colorado River basin could still be hit hard.

In order to face that threat, there have been growing calls by academics, conservation advocates and policymakers to rethink how water is used and managed, and to adopt a lineup of strategies to prepare and adapt.

The list of ideas is long: capturing more stormwater during floods; using more surface water to recharge depleted aquifers; treating and reusing more wastewater; cleaning up contaminated groundwater; improving efficiency on farms and in cities; and adopting policies that encourage conservation, among other things.

No single strategy is likely to be enough on its own. Many government officials in charge of water management in places from California to Washington, D.C., have lined up behind what they've called an "all-of-the-above" approach. They say that making water systems more resilient is achievable with intelligent planning, and that steps are underway to adapt.

Questions about how global warming will affect water supplies have become an active focus of scientific research. Many scientists agree that the scale of the water challenges, especially in the West, is monumental, and that each area will need to develop its own local solutions to stretch water supplies further.

In a 2014 study, researchers at the University of Idaho examined likely shifts in the rain-snow transition zone across the western United States. They projected declines in the areas where snow falls in the wintertime of between 24 percent and 53 percent by mid-century.

The changes in the timing of runoff are projected to be drastic. And as temperatures rise, more of the snow and rain that falls will evaporate instead of running off. Scientists expect those changes to shrink the average flows of streams and rivers.

At the research site in the Sierra Nevada, located more than 6,000 feet up in the mountains northeast of Fresno, Stacy was at work along with doctoral student Melissa Thaw, who was collecting water samples from the soil beneath a large incense cedar.

Her research involves using isotope "signatures" in the water to track how it moves through the soil and where trees and shrubs are taking up water. Thaw is interested in learning more about how climate change will affect the water and the ecology of the forest, and she is focusing on the transition zone between rainfall and snow.

As the climate warms, it will push this transition zone higher into the mountains, moving the snowline upslope. Thaw said that points to a need to anticipate the effects on water supplies, while also taking steps to slow global warming.

"The mountains are the world's water towers, so when the water can be held up in the Sierra Nevada later in the year, we have a longer amount of time where we have runoff coming down into the reservoirs," she said, standing among boulders and snow-covered manzanita bushes.

"I think being aware that these water resources are changing pretty fast and that they're limited is important," she said. As for the scale of the threats posed by climate change, she said: "It's super important, and I don't think people are doing enough."

A receding layer of snow remained on the ground in early March at an elevation of about 6,000 feet in the Sierra National Forest. Scientists have documented significant declines in the average snowpack throughout much of the continental United States due to global warming.

The snow that melts in this rugged stretch of the Sierra collects in Providence Creek and flows into Big Creek, snaking down through forests of brown, dry ponderosa pines that have been killed by infestations of bark beetles during the drought. The creek eventually reaches the Kings River, which flows into Pine Flat Reservoir.

Much of the water flows through canals to the farms of the Central Valley, which produce a large share of the nation's fruits, vegetables and nuts.

During the drought, the levels of Pine Flat Reservoir have fallen far below average levels. But in times of flooding, the Kings River can also unleash huge pulses of water.

Farmer Don Cameron has been preparing for those times. He is the general manager of Terranova Ranch, and in 2010 his farm received a \$75,000 grant from the U.S. Department of Agriculture's Natural Resources Conservation Service to help pay for an experimental project that involved flooding 1,100 acres of farmland in order to replenish the aquifer.

When the floodwaters poured in during 2011, the inflows helped boost groundwater levels, which have been declining for decades in this area and across the Central Valley.

Cameron said the project worked well, and now the farm has obtained a larger \$5 million grant from the California Department of Water Resources to spread larger quantities of floodwater on its fields in the future. The farm is contributing \$2 million in matching funds for the project.

"For the long-term viability of the area, we need to do this," said Cameron, who manages more than 7,000 acres of farmland growing two dozen crops ranging from tomatoes and carrots to onions, wine grapes and kale.

The grant from the state will be used to pay for upgrades to canals, pipelines and other infrastructure. The state will also buy an easement to be able to permanently use a portion of the ranch's lands to deliver floodwaters to fields. The project will involve spreading water over 6,000 acres on Terranova Ranch and neighboring farms to replenish the aquifer. In subsequent phases, the plan calls for spreading water over a total of 16,000 acres.

Cameron sees it as an important strategy to prepare for the effects of warming. The farm, which relies on groundwater, has also converted many of its fields from flood irrigation to drip irrigation.

"When I look long-term at climate change, I look at a probably less reliable water supply as a grower," Cameron said, standing above a dry canal. "I think growers are going to be the ones that are going to see the real net effect before anyone else."

He ticked off examples of the changes that are already occurring: The seasons have begun to shift, changing the times of plantings. Last year, the pistachio crop was a disaster due to the warm winter.

"I think we're going to see growers having to adapt to change crops possibly and to be more cognizant of the water that they use. They're going to have to capture floodwater when it comes by," Cameron said. "We need to be proactive. We need to put in systems. We need to use the systems that we already have in place to be able to use this water when it is here and save it for times when we don't have it available."

The city of Fresno is taking a similar approach in trying to boost its underground water supply. When surface water from reservoirs is available, some is diverted through canals to a series of spreading ponds at a 203-acre city facility called Leaky Acres, where the water seeps down into the soil to the aquifer. The water shimmers in pools encircled by a freeway and busy avenues, attracting birds that float on the surface.

"We put the water into the ponds and let nature take its course," said Ken Heard, chief of water operations for the city's public utilities department.

Lately, about 15 million gallons a day have been flowing into the ponds. It's still not enough, though. The average groundwater levels around Fresno have fallen more than 100 feet in the last 80 years, and the levels are still declining, Heard said. As the water table continues to recede, pumping costs for the city's wells gradually increase.

With climate change, Heard said, that supply of groundwater is going to become even more precious.

"From Fresno's perspective, one of the biggest impacts of limited or no snowpack is it's going to limit our ability to offset our groundwater pumping with treated surface water," he said. Fresno recently began building a plant that will treat surface water from reservoirs to relieve pressure on the aquifer.

"Now with the prospect of prolonged or more frequent droughts, we may not be able to do that as much, which means we'll have to continue using the wells," Heard said. "And as long as we keep using the wells faster than the water is being replenished – whether artificially or naturally – that's going to be a losing battle."

He said that makes conservation all the more important. People in Fresno have reduced water use by about 25 percent in response to the state's emergency drought regulations, building on previous reductions.

"I think these levels that we're seeing that we're calling reductions are going to need to just become our normal," Heard said. "It's definitely going to take a change in thinking for pretty much the whole state."

Other water managers express confidence that the Kings River basin is relatively well prepared. Steve Haugen, the watermaster of the Kings River Water Association, said the area has already grown accustomed to highly variable natural swings in runoff. The amounts of water in the Kings River in a record wet year can be on the order of 10 times larger than a dry year, he said.

"At least in this area, most of the basin I think is well set and prepared," Haugen said. "Unless we get into these 20- or 30-year droughts, there are some challenges there, and that'll have to be responded to as we see those develop."

Across California, the state government has received reports of more than 3,000 households out of water since the summer of 2014, many of them with dry wells – and most of them in small communities around Central Valley farms that have been pumping groundwater heavily during the drought.

As for the future, Haugen said the mountains above the Kings River are so high and steep that even a rise of 1,000 feet in the snowline – which scientists say is likely with 2 degrees Celsius of warming – should have a "fairly minimal impact" on the total amount of water.

But in other areas of California, such as the watersheds that feed the Feather River and the American River, he said the same rise in snowlines would change snow to rain over large areas. And that would unleash much bigger impacts.

The snowpack in the Sierra Nevada acts as a natural reservoir that provides water for California as it melts in spring and summer. The average snowpack has been decreasing across much of the West as temperatures have risen.

Using data from snow sensors across the country, scientists have tracked significant declines in the average snowpack throughout much of the continental United States as the climate has begun to heat up.

Some stations at the highest elevations, including parts of the southern Sierra Nevada and the southern Rocky Mountains, have been the exception and have seen increases in snowfall with that initial warming. But that's because at those heights a little extra warmth can make the atmosphere more conducive to generating snow – and scientists expect that will last for only a limited time.

Once the atmosphere warms up enough, then snow is projected to decrease at those high-elevation sites, too, said Sarah Kapnick, a research physical scientist at the National Oceanic and Atmospheric Administration's Geophysical Fluid Dynamics Laboratory in Princeton, New Jersey.

The snow is melting earlier at all of the monitoring stations in the western U.S., Kapnick said, "and that's why you don't have as high of a peak within the season."

She and colleague Alex Hall of the University of California, Los Angeles, estimated in a 2012 study that across the West, snow has been melting on average one day earlier per decade since 1950 – about a week earlier than it used to melt. In Northern California and the Northern Rockies, they found the melt has moved up even more – by about two weeks over that same period.

Stream gauges have also shown earlier spring runoff from snowmelt than in the past.

Those shifts are just the beginning of the more pronounced changes that scientists expect. Kapnick has estimated in her research that if the quantity of carbon dioxide in the atmosphere is doubled from 1990 levels, the average amounts of snowfall are likely to decline by 50 percent or more in coastal regions of the lower 48 states, and by amounts ranging from 10 percent to 40 percent on inland mountains.

As the amounts of snowfall gradually decrease with warming, Kapnick said, "it takes us closer to drought conditions on an average basis."

In fact, the drought in Oregon and parts of Northern California during 2014 and 2015 had a lot to do with the very warm winter, said Philip Mote, a climate scientist at Oregon State University.

"Here we had pretty close to average precipitation in the previous winter, but only about 10 percent of average snow in much of Oregon and the northern counties of California," Mote said. "So that was an illustration of what happens if it's just a lot warmer."

Scientists concluded in one study last year that global warming has exacerbated the drought in California by drawing moisture from the soil and plants into the air.

California, Oregon and Washington rely to a large extent on spring snowmelt to sustain water supplies through the summers, and that natural reservoir is shrinking.

"So if you imagine a big reservoir like Shasta in Northern California or Lake Mead or Lake Powell, and every year we're sort of cutting another foot off the top of the dam, reducing the amount of water that we can store," Mote said. "That's sort of effectively what's happening, because as we raise the snowline, we're reducing the area over which snow can accumulate."

One team of scientists recently studied how declines in snowpack will likely affect the water supplies of different regions around the world based on the projections of climate models. And what they found was striking. Of 421 drainage basins in the Northern Hemisphere, they identified 97 regions as being "snow-sensitive" and dependent on snowmelt to help meet water demands. Those regions are home to about 2 billion people.

The scientists' results, laid out on a map, show that much of the western U.S. – from California to the Colorado River basin to the Rio Grande – is shaded in red and maroon. That indicates those regions are particularly vulnerable and face high risks of having less water available during spring and summer months due to decreases in snowpack.

"What we're really quantifying in that study is, what's the potential of the climate of tomorrow to supply the water needs of today?" said Justin Mankin, a climate scientist at Columbia University's Lamont-Doherty Earth Observatory who co-authored the study.

Declining snowpack puts water supplies at risk.

In regions that pop up as red across the western U.S., Mankin said, "according to our measure, the climate of tomorrow will not be in a position to supply the water demands of today."

Mankin, who is also affiliated with the NASA Goddard Institute for Space Studies, said the findings point to a need for a "management response." He said how policymakers should respond differs for each river basin. "But in general, what a measure like this is telling us is that our historical reliance on snow is untenable in a future climate."

The challenges for the Southwest appear especially daunting. Over the past few decades, the region has grown drier. Using climate models, scientists have projected that increasing emissions of greenhouse gases make for higher chances of a decades-long "megadrought" by the end of the century.

Even without such an extreme event, many scientific studies forecast significant declines in the flow of the Colorado River, which together with its tributaries provides water for nearly 40 million people and more than 5 million acres of farmland.

Researchers have estimated that warmer temperatures and the resulting declines in runoff could reduce the river's flow by between 5 percent and 35 percent by the middle of the century. That will add to the enormous pressures on a river that is already heavily over-allocated and rarely reaches the Sea of Cortez anymore.

Federal officials who manage dams for the U.S. Bureau of Reclamation have recently calculated that the chances of Lake Mead reaching shortage levels in 2018 have risen to 59 percent.

If a shortage is declared, that would trigger cutbacks in the amounts of water delivered to Arizona and Nevada. Those sorts of impacts could grow more severe if continued decreases in the flow of the river collide with the existing framework of water allocations, which was drawn up during wetter times over the past century. Even California, which under the law of the river would be the last in line to have its water deliveries reduced, could face growing pressures to accept cutbacks.

With warming, demands for water also will tend to increase in the Southwest as the same amount of irrigated acreage will grow thirstier, and as more water will evaporate off the landscape.

"The Colorado system is really vulnerable to climate warming," said Dan Cayan, a climate researcher with the Scripps Institution of Oceanography and the U.S. Geological Survey. He pointed to recent research indicating that for every 1 degree Celsius of warming, the Colorado River could lose somewhere between 5 percent and 10 percent of its flow.

While the pressures grow on the river's limited supply, potential remedies are constrained by the legal framework laid out under the 1922 Colorado River Compact and subsequent water agreements.

Some researchers have compared the river to a pie that's being cut up to share: The problem now, they say, is that the pie is still being divided in the same way as it has been for a long time, even though we're finding the pie is actually much smaller than we once thought it was.

"The management of the river is going to have to dramatically change," said Gary Wockner of the environmental group Save the Colorado.

"There's going to have to be more conservation. There's going to have to be more water transferred from farms to cities. And it is increasingly unlikely that there's going to be enough water," Wockner said. "So something has to change."

Aside from the scandal over lead-contaminated water in Flint, Michigan, water issues haven't come up during the U.S. presidential race. Candidates have barely discussed climate change, much less the impact of warming on water supplies.

But some people argue the United States is long overdue to move toward a comprehensive national water policy, especially with the effects of climate change looming.

"We're in a water transition from what I would say is a 20th century way of managing water to what I think will be a much more sustainable way of managing water, and it's a transition," said Peter Gleick, president of the Pacific Institute, a think tank that focuses on water issues. "Inevitably, our water system will be much more sustainable. Ultimately the question is how quickly and with how little pain we can get there."

He and others say adapting will require a host of strategies, from preparing for more severe droughts to adopting new "rule curves," or sets of guidelines for managing water levels in reservoirs, based on patterns of runoff that are shifting away from historical norms. Adapting will also require investments in infrastructure, better water data and science-based policymaking to address vulnerabilities.



While all of those steps may sound relatively simple, efforts to make the nation's water systems more sustainably face a host of barriers. Just fixing old, leaky infrastructure could save vast quantities of water, but doing that would require substantial investments by local and state governments. Budgets for new infrastructure projects are limited in many areas, and private investments in new water-saving technologies have also remained small when compared with the rapid growth in investments in renewable energy.

Many areas could recycle and reuse much more treated wastewater if there were enough investment by public agencies. Other barriers include a lack of sufficient monitoring and measurement of groundwater use; antiquated and rigid water rights systems; and in some places, pricing systems that don't go far enough in encouraging conservation. With management responsibilities fragmented among many local and state entities, some agencies appear to be taking forward-looking steps while others are constrained by bureaucratic inertia, pursuing the same old approaches even as the climate changes.

Questions about preparedness for climate change need to be answered at the local level, area by area, said Mote, the climate scientist at Oregon State.

"I think there's no better test than a drought like we've just had," Mote said. "Whatever can be done now to figure out a better way to manage that situation will probably stand us in good stead for the next time it happens."

With the snow holding less water, that seasonal water-storing capacity will need to be replaced elsewhere. But that doesn't necessarily have to involve building more dams.

"There are multiple ways to get storage," said Roger Bales, a professor and director of the Sierra Nevada Research Institute at UC Merced. "Before we ask the public to pay for an expensive dam, we'd better make sure that's the best option, that we need to exhaust local options such as groundwater storage and recharge."

Researchers have also found that investments in thinning overgrown forests could help. By removing vegetation and carrying out prescribed burns, those sorts of projects can make forests healthier and reduce the risks of wildfires, while also increasing runoff from the mountains – which could give a boost to water supplies downstream.

"We need to prioritize where investments in forest restoration will actually make a difference, both for fire and water," Bales said.

Preparing for a hotter climate will involve not only counting on less snowmelt, scientists say, but also getting ready for changes in the timing and intensity of storms, and more extreme downpours. Among other things, warming can raise the odds of events in which rain falls on top of snow. By rapidly melting the snowpack, that can trigger floods.

"What we have to think about is, how are we going to manage the infrastructure that is not adapted to the new regime which we'll be operating under?" said Noah Molotch, director of the Center for Water Earth Science and Technology at the University of Colorado, Boulder. "That really is the challenge, I think, for society."

Many managers of local water districts as well as state and federal officials have been emphasizing a need to use water more efficiently and stretch local supplies further.

"If you just do what we do now over the next 30 years, we will definitely face challenges," said David Groves, co-director of the RAND Water and Climate Resilience Center. "The region is not prepared for growth in certain areas, as well as superimposing climate warming."

He and other experts see enormous potential for California and other states to recycle more wastewater, "bank" water in aquifers, and capture more stormwater instead of letting it run off city streets into the sea.

When California's Natural Resources Agency recently issued a report outlining the state's efforts to prepare for climate change, it focused on objectives such as preparing for floods, managing groundwater, diversifying local water supplies and improving efficiency, among other things.

The Obama administration has also launched several initiatives aimed at encouraging more investments in water infrastructure, improving water data and boosting technologies that can help shrink the country's water footprint. When the White House held its first-ever national water summit in March, much of the discussion focused on efforts to help address the threats posed by climate change.

Coinciding with the event, the Interior Department released a report detailing projections of climate change impacts on the regional water supplies of 17 western states. In the report, the department said average temperatures will likely rise by 5-7 degrees Fahrenheit by the end of the century, bringing reductions in stream flows of between 7 percent and 27 percent from April through July in several river basins, including the San Joaquin River, the Rio Grande and the Colorado River.

Deputy Interior Secretary Mike Connor said recently that some of the White House's key goals include encouraging more wastewater recycling and promoting investments in water treatment and desalination technologies.

"There's great potential across the West to increase what we're doing in the area of water reuse," Connor said. "There's very significant opportunities for targeted desalination facilities, brackish groundwater desalination. We're already seeing that in some areas. That can add to the water supply from previously unusable supplies. That can help relieve the stress on existing potable water supplies."

Some California water districts have begun investing heavily in plans to prepare for longer and more intense droughts, as well as for the wetter times.

The Santa Ana Watershed Project Authority, for instance, is backing a \$100 million project that involves developing four large groundwater basins to store imported water from Northern California when it is available. Celeste Cantú, the authority's general manager, said the strategy is to "capture the flashy wet years."

Several agencies are pooling their resources and participating jointly in the project.

"You have four basins that are going to be managed for the greater good of the watershed," Cantú said. She called it a big step toward becoming more climate-resilient.

A number of California agencies are taking significant steps to become less dependent on imported water supplies, said Frances Spivy-Weber, vice chair of the State Water Resources Control Board. She pointed out some water districts are projecting they will need less water in two decades than they do now, and she said that's cause for optimism. Growing numbers of water districts have also switched to tiered pricing systems that reward those who conserve and penalize those who don't.

"Climate adaptation definitely is achievable with conservation and portfolio of water supplies," Spivy-Weber said. "We're going to be able to ride out the droughts – even if they last for 10 years or 20 years."

The drought in California, now in its fifth year, has been a harbinger of the hotter droughts expected under climate change.

Last year was the planet's warmest year since records began in 1880, surpassing a record set the previous year.

This past winter also brought record-breaking warmth. In the continental U.S., the average temperature in the three months from December through February was 4.6 degrees Fahrenheit warmer than the 20th century average.

Stacy and other scientists who are doing research in the Sierra Nevada have been seeing the effects of the abnormal heat all around them, even as this winter brought a larger snowpack that peaked at 88 percent of average in late March.

Stacy works at five research sites as field manager for a project called the Southern Sierra Critical Zone Observatory. Over the past couple of years, she and other researchers have watched mid-elevation forests of ponderosa pines turn brown and die.

Warm winters have enabled bark beetles to flourish in the drought-stressed forests, and the insects have left the mountains covered with millions of dead trees.

At the beginning of last summer, Thaw began studying one lower elevation site and marked trees to take samples over the following months.

"I came back later in the summer and they were dead," Thaw said, "so I had to change my research plan."

At research sites where several years ago Stacy trekked in using snowshoes or skis, she's now often able to park nearby and walk on exposed ground.

"Sometimes it makes our work a little bit easier up here, but it's really noticeable when we're out here doing research that the snow isn't there," Stacy said.

She slipped on a safety harness and climbed up a 160-foot tower to replace air filters on instruments that monitor water vapor and carbon dioxide in the air. She explained that the measurements enable her team to "observe the forest breathing" as the trees conduct photosynthesis.

Then she went to check a snow sensor. As she walked across a white meadow, she skirted holes in the snow where sheets of water were flowing beneath and shimmering in the sun. The water streamed off onto patches of bare ground.

"It's been melting pretty quickly over the past couple of weeks," she said, "because it's been so warm."

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## Water agencies urge California to relax drought targets

Ian James, April 22, 2016

Winter and spring storms have pushed up the water levels in reservoirs in Northern California, and managers of water districts are pressing for state officials to lift or relax the mandatory conservation targets that were imposed last year.

The Coachella Valley's largest water districts have fallen short of those targets and are among the agencies calling for the state to make significant changes to California's drought measures. They argue the current rules don't adequately account for the hot climate of the desert, the large seasonal population of tourists and retirees, and the area's mix of water supplies, including groundwater and imported surface water.

"We've planned to import enough water supply to meet the needs, and that is based on historical droughts and years where we've had lots of water," said Mark Krause, the Desert Water Agency's general manager. "If you have a lot of water and you plan for droughts, then you should be able to use that water without having severe restrictions as though you don't have any water or you're running out of water."

Under the current mandatory conservation measures, the DWA is supposed to be achieving monthly cutbacks of 32 percent. Last month, the agency's customers reduced their use by 15 percent as compared to the same month in the baseline year of 2013. Since last June, when the restrictions took effect, the agency's customers have cut back by a cumulative 26 percent.

"I want the state to let local agencies have more of a voice, and we have significant differences between different areas of California," Krause said in an interview.

Krause doesn't have a specific percentage number to propose. Rather, he said, "I just want to level the playing field for everyone."

The State Water Resources Control Board is considering adjustments to the latest round of emergency drought regulations, which took effect in February, and plans to take up the issue again at a meeting on May 18.

In a letter to the board, Krause suggested significantly easing conservation targets in areas that no longer face extreme drought conditions, while also making larger adjustments for climate and giving credit to areas that are managing groundwater and using recycled water.

"It is vital that we retain the trust of our community so that when we face drought conditions again in the future, people take restrictions seriously," Krause wrote in the April 14 letter. "The issue of credibility is important throughout the state, but especially in communities where drought conditions are not as severe and supplies are healthy."

As of this week, the portions of California classified as being in "exceptional drought" conditions have shrunk to 21 percent of the state, according to the U.S. Drought Monitor website. A total of 74 percent of the state is still considered to be in the categories of severe drought, extreme drought or exceptional drought.

This winter brought a larger snowpack that peaked at 88 percent of average statewide in late March. Lake Shasta and Lake Oroville, the state's largest reservoirs, are now full, and the levels of other reservoirs have risen.

The Association of California Water Agencies, which represents more than 430 public water agencies, is calling for the state to end the mandatory restrictions, or if not, to make major revisions to the regulations.

The Coachella Valley Water District, the area's largest supplier, has joined eight other Southern California agencies in proposing a new system that would allow districts to self-certify their available water supplies and evaluate whether they have enough to meet water demands.

"The conservation mandates to date have been wholly focused on demand," said Katie Ruark, CVWD's conservation manager. "What we're asking is that supply become part of the conversation."

She said that if the state adopts this type of a system, "we would demonstrate that our supply is capable of meeting our demands."

The state's current emergency drought regulations, if they remain unchanged, would be in effect through October. Environmental groups have urged the state water board to keep in place targets for water-use reductions if they decide to make adjustments to the regulations.

"We definitely need to be cautious because we aren't out of the woods yet," said Tracy Quinn, a senior policy analyst with the Natural Resources Defense Council. "We recommend adjustments to the current targets rather than eliminating the targets or allowing districts to set the targets themselves."

Her organization made that recommendation to the board together with the Pacific Institute and the California Coastkeeper Alliance.

Quinn said the state should prepare for the possibility of more dry years following this near-average wet season. She pointed out that meteorologists with the National Oceanic and Atmospheric Administration recently projected a 70 percent chance that after the fading El Niño, La Niña will arrive in the fall, potentially bringing drier weather.

Meanwhile, California's perpetually contentious struggles over water will also be playing out in a new federal court case. The Natural Resources Defense Council and two other environmental groups – The Bay Institute and Defenders of Wildlife – filed suit Friday against the U.S. Environmental Protection Agency, accusing the government of failing to protect water quality in the San Francisco Bay-Delta under the Clean Water Act and threatening native fish such as endangered Chinook salmon.

Kate Poole, a senior attorney with NRDC, noted that state officials' decisions to weaken or waive water quality standards in the Bay-Delta over the past three years have been made in the name of allowing for increased water exports or diversions.

"We believe that many of those waivers would be avoidable if the state had a more comprehensive plan and effort in place to advance regional supply solutions and efficiency improvements," Poole said in an email. Her group has studied ways California could save water and has recommended that much more be done to promote efficiency improvements on farms and in cities, the capture of more stormwater, and the recycling and reuse of wastewater.

Water districts across Southern California have been coping with minimal deliveries of water through the canals and pipelines of the State Water Project for the past several years. Last year, they received 20 percent of full allotments. In 2014, they received just five percent. That was down from a high of 80 percent in 2011.

Based on rainfall and snowpack in recent months, the Department of Water Resources announced this week that projected deliveries of water through the State Water Project will increase to 60 percent of full allotments, up from a projection of 45 percent a month earlier. It's a supply of water that reaches about 25 million people as well as farmland.

Because the State Water Project doesn't reach the Coachella Valley, the area's water districts trade their allotments for equivalent amounts of water from the Colorado River Aqueduct. When it is available, that water flows to a series of ponds on the outskirts of Palm Springs, and seeps down to replenish the aquifer.

Groundwater levels have declined in much of the valley over the past several decades, even as the inflows of imported water have helped partially offset those declines. Managers of CVWD and DWA say they have long-term plans to address the overdraft problem and manage groundwater sustainably, as required under California's 2014 groundwater management act.

State regulators have listed three of the valley's four aquifer sub-basins as being "medium" priority under the groundwater management law.

Krause said continued efforts to manage groundwater are critical whether or not the state is in a drought. He said DWA customers have made great strides in saving water, and he hopes those efforts continue.

"The most important takeaway is that we're living here in the desert. We're always in a drought," Krause said. "Be conscious that this is a resource that is, you know, not infinite. It's finite. And we have to import that water, so use it wisely."

The state-mandated restrictions have led to reduced revenues for water districts. In the case of DWA, the reductions in water use have led to a decrease of more than \$5 million in revenue since the middle of last year.

Water agencies in the Coachella Valley have also stepped up enforcement in recent months, issuing warnings and fines for violations of drought rules and incidents of water waste.

DWA, which supplies Palm Springs and parts of Cathedral City, has restricted outdoor watering before 7 a.m. or after 7 p.m. on Mondays, Wednesday and Fridays only. The agency has issued 172 fines, which for single-family homes can range from \$50 for a first violation to \$250 for repeat offenders.

CVWD officials say they also have boosted enforcement efforts. Under an ordinance approved last year, CVWD prohibited outdoor watering on Mondays and Thursdays. Those restrictions were lifted on March 31 when the temporary measure expired.

*Ian James writes about water and the environment for The Desert Sun. He can be reached by email at [ian.james@desertsun.com](mailto:ian.james@desertsun.com) and on Twitter: @TDSIanJames.*



## California drought: Using fines to fuel conservation

Ian James, The Desert Sun 5:23 p.m. PDT April 26, 2016

Six months ago, regulators with California's State Water Resources Control Board made an example of four local agencies by slapping them with \$61,000 fines for failing to comply with mandatory drought rules requiring reductions in water use.

Now two of those agencies, the Coachella Valley Water District and the Indio Water Authority, have reached deals with the state that will allow them to use the money locally to promote water conservation.

Under its proposed settlement with the state, the Coachella Valley Water District plans to use its \$61,000 to start a certification course for landscapers focused on promoting efficient water use. If the agreement is approved, the district will work with other agencies in the Coachella Valley to make the class a requirement for anyone who applies for a license for a professional landscaping business.

"It's great that we're able to use these funds locally in a way that benefits the community," said Katie Ruark, the district's conservation manager. She said the class will be offered online in English and Spanish and will also be available at a College of the Desert testing center.

She said the goal is to piggyback on a similar course for landscapers that focuses on lawn reseeded and scalping. Ruark said the water district plans to work with cities and the Coachella Valley Association of Governments to make the class mandatory.

The Indio Water Authority has agreed to use its \$61,000 to support multiple programs aimed at boosting water conservation, including a rebate program to help residents purchase more efficient evaporative coolers, and the creation of a website that will allow people to see real-time information about their water use.

The funds will also be used to support more work by staff promoting conservation in schools and the community, said Brian Macy, general manager of the water authority. He said keeping the dollars local should help reduce water use in the city.

"From our perspective, it's a win-win," Macy said. "Instead of fighting it, we worked collaboratively with the state."

The state water board has posted the proposed settlements online and is accepting comments from the public until May 2.

The board also fined the cities of Beverly Hills and Redlands in October for similarly failing to meet their mandatory water conservation targets.

Beverly Hills has paid its \$61,000 fine, and Redlands is still in negotiations with state officials, said Cris Carrigan, chief of the state board's Office of Enforcement. Carrigan said the deals with Indio and CVWD are an "excellent arrangement" that will help encourage more conservation.

Water agencies in the desert have largely failed to reach the state's mandatory conservation targets since the measures took effect in June.

California is now in a fifth year of drought. But after winter and spring storms that pushed up the water levels in major reservoirs, many water districts are pressing for the state water board to make changes to the drought measures and relax the conservation targets.

The Coachella Valley Water District has joined eight other Southern California agencies in proposing a new system that would allow districts to self-certify their available water supplies and evaluate whether they have enough to meet demands.

In March, CVWD's customers used 18 percent less water than they did in the same month in 2013, which the state uses as a baseline year. From June through March, the water district has achieved cumulative reductions of 24 percent, well below its state-set target, which for most of that period was 36 percent. In February, the state changed CVWD's reduction target to 32 percent.

Customers of the Indio Water Authority achieved a 24 percent reduction in water use in March, just shy of the state-set target of 27 percent.

*Ian James writes about water and the environment for The Desert Sun. He can be reached by email at [ian.james@desertsun.com](mailto:ian.james@desertsun.com) and on Twitter: @TDSIanJames.*

## California weighs sharing 'pain' of Colorado River cuts

Ian James, April 26, 2016

With the Colorado River tapped beyond its limits and the level of Lake Mead in decline, representatives of California, Arizona and Nevada say they've been making progress in negotiating an agreement for all three states to share in water cutbacks in order to stave off a more severe shortage.

Officials who have been involved in the talks over the past several months cautioned that the details have yet to be finalized, and said difficult negotiations remain between water districts and among the states. But they expressed optimism in interviews on Monday that the three states and the federal government will be able to reach a deal to keep more water in Lake Mead, the nation's largest reservoir.

"We are looking for an agreement that will be beneficial to all three Lower Basin states," said Tanya Trujillo, executive director of the Colorado River Board of California. "That's in the context of recognizing that there are still significant issues that we need to keep working through. So we're going to keep at it, and it may take several months. It may take another year."

Under the proposals being considered, each of the states would accept cuts in water deliveries at different threshold levels as Lake Mead continues to decline. California, which holds the most privileged rights to water from the Colorado River, would accept reductions before it would otherwise be legally required to.

"It's kind of a hypothetical scenario that we've been walking through," Trujillo said. She said the talks between water managers have focused on sharing cutbacks due to a recognition that "we may need to plan for some very, very, very dire hydrologic conditions."

Officials from the three states and the U.S. Bureau of Reclamation have been meeting regularly since last summer to discuss ways of preventing Lake Mead's levels from falling to critical levels.

The water level in Lake Mead stood above 1,077 feet elevation on Monday. But water managers predict that a shortage is increasingly likely in the coming years. The Bureau of Reclamation could declare a shortage during the summer if it projects Lake Mead's elevation would sink to 1,075 feet or lower at the beginning of next year. The U.S. Department of the Interior would take charge of water allocation if the reservoir's level were to sink to an elevation of 1,025 feet.

"We're trying to reduce the probabilities that those critical elevations will be hit or even exceeded by putting this plan in place," said Tom Buschatzke, director of the Arizona Department of Water Resources. He said that by working collaboratively, the three states can "control our own destiny."

He said they have put together the outlines of a potential plan that "while it might have some pain for all of us, it's pain that we perhaps can live with and deal with."

The Arizona Department of Water Resources presented elements of the proposed plan to the Southern Arizona Water Users Association last week. The agency's presentation included potential cutbacks for each of the states and the Bureau of Reclamation, which manages Lake Mead.

Among the details, Arizona would lose 512,000 acre-feet of its total of 2.8 million acre-feet per year if a first-level shortage is declared, compared with the 320,000 acre-feet it had previously agreed to at that level. Nevada would sacrifice 21,000 acre-feet of its 300,000 acre-feet, up from its original 13,000.

If the shortage worsens and the level of Lake Mead falls between 1,045 feet and 1,025, the plan calls for California to take a cut of between 200,000 acre-feet and 350,000 acre-feet – up to about 8 percent of its total of 4.4 million acre-feet per year.

“I think there’s going to be some back and forth and refinement of several drafts before we come to hopefully some sort of closure on this,” said Jeffrey Kightlinger, general manager of the Metropolitan Water District of Southern California, which has been involved in the talks.

“It’s in nobody’s interest to have the Colorado River system get pushed so hard that it reaches some sort of breaking point,” Kightlinger said. “It’s our goal to make sure the Colorado River is a big sustainable supply of water for California for decades to come, so to do that, as we reach lower and lower elevations, it makes sense for all of us to be proactive and not wait for trouble to come.”

Southern California. Kightlinger said the talks have focused in part on the terms of the cutbacks, including allowing water districts that voluntarily leave water in Lake Mead to access those supplies in later years.

“Internally within California, we’re discussing how do we share that pain amongst ourselves,” Kightlinger said. Those negotiations involve his districts and others including the Coachella Valley Water District, the Imperial Irrigation District and the Palo Verde Irrigation District. He said he hopes to have something finalized by the end of the year, but added that a deal is by no means certain.

Jim Barrett, general manager of the Coachella Valley Water District, said the parties involved in the discussions “have not yet agreed to any specifics so it would be premature at this point to provide additional details.”

“CVWD’s imported water supply is obviously an important issue for the Coachella Valley and residents can be confident that their interests are being represented during the discussions,” Barrett said in an email.

Lake Mead’s levels have declined during a 16-year drought, and climate change is projected to add significantly to the strains on a river that is already severely overallocated.

John Entsminger, general manager of the Southern Nevada Water Authority, said the three states have come up with a “tentative framework” and much could change before any agreement is finalized. He said he, too, hopes to have an agreement in place by the end of the year, and certainly before the next president is sworn in next year.

“I think it’s in the best interests of the people of all three states if we can get something done this year,” Entsminger said. “What you’re seeing here is a recognition of the increasing risk of Lake Mead going below pretty critical elevations and everybody realizing it’s going to take everybody on the river to solve the problem.”

In Arizona, exactly how the proposed cutbacks would be absorbed has yet to be determined. Farms will likely not be alone in facing reductions. The state will ask cities and towns to volunteer to help, said Theodore Cooke of the Central Arizona Project.

“Our hope is that we have some sharing of the burden,” Cooke said, “so it doesn’t just fall on the backs of some.”

The negotiations follow a previous 2014 agreement among users of the river that helped conserve water and prevent larger declines in the levels of Lake Mead.

“We recognize that there are risks to the flow of the river and we know that the possibility of Lake Mead falling to unacceptably low levels keeps increasing as the drought continues,” Buschatzke said. “We are going to proactively find ways to lower the risk of that happening.”

He called it a “landmark” that California officials have expressed willingness to potentially take less than the state’s full entitlement.

“They stepped up to the plate big-time,” Buschatzke said. He said Arizona’s representatives have also stepped up in a big way by being willing to reduce the state’s use more than they previously agreed to do during 2007 negotiations.

Praising the cooperative steps in the negotiations, he said the proposed cuts may evolve further based on the talks in each state.

The boards of water districts in California and Nevada would need to sign off on any agreement. In Arizona, approval by the Legislature would be required.

Buschatzke said he said he hopes to have a deal finalized later this year in order to present it to the Arizona Legislature in January.

*Ian James writes about water and the environment for The Desert Sun. He can be reached by email at [ian.james@desertsun.com](mailto:ian.james@desertsun.com) and on Twitter: @TDSIanJames.*

Caitlin McGlade of The Arizona Republic contributed to this report.

## **This gated community insists California's drought is over, wants green lawns again**

The Blackhawk homeowners association, a gated community in the San Francisco Bay Area, has threatened to fine homeowners for brown lawns despite California's continuing drought emergency. Pictured is a lawn in Blackhawk.

Joseph Serna, April 27, 2016

The warning was stern and unequivocal: The days of unkempt, browning lawns in the gated community of Blackhawk were officially over.

"We believe that allowing the drought to negatively impact the landscaping at any Blackhawk home does a disservice to property values throughout the community," the homeowners association announced. "We believe there is no longer any reason that all landscaping in the community cannot flourish as it once did." Starting on June 1, any of Blackhawk's 2,000 homeowners who fail to maintain green lawns or install drought-tolerant landscaping will now risk fines or litigation.

With El Niño-fueled storms drowning out reminders that most of California remains in a state of severe drought, a growing number of communities and water associations are demanding an end to emergency water restrictions that were first imposed more than a year ago.

The outcry is particularly strong among those in the Northern California, where El Niño storms have hit hardest and filled reservoirs nearly to the brim.

"I have not been flushing my toilet, I've been taking Navy showers and putting my landscape at risk under the emergency circumstances," said Tim Quinn, executive director of the Assn. of California Water Agencies, or ACWA. "But I don't want to have to do that when we're not in an emergency."

Though local water officials say Blackhawk's move is premature, and possibly violates a governor-backed emergency declaration to not penalize residents for failing to maintain a lush, green lawn, it is nonetheless something officials anticipated would eventually happen.

"The reality is that with the most recent rains and snowpack, [water storage] has really been uneven in parts of the state," said George Kostyrko, spokesman for the State Water Resources Control Board.

Blackhawk, which is located near Danville, is just the latest among several water districts and communities that have begun to signal they'll push back if the state doesn't address the inequities, Kostyrko said.

Both the Placer County Water Agency and Nevada Irrigation District last month asked the state to roll back water conservation mandates, citing higher-than-average reservoir levels. These water reserves, they said, are ready to serve customers for at least a year.

"Drought conditions no longer exist in the watersheds that service the region," the PCWA wrote to the State Water Board March 17.

Over the last decade, Blackhawk has cut its water consumption by nearly half, from using 51 million gallons in 2004 to about 26 million this year, the East Bay Municipal Utility District said.

"Although precipitation and snowpack conditions may be 'normal' or even somewhat 'below normal' in some regions, surface water supplies are clearly available...storage is being fully replenished and the drought emergency has been substantially alleviated," ACWA argued in a letter to the water board earlier this month.



"California water users are aware that the severity of the drought has been mitigated, and it is extremely important to acknowledge that, for now, conditions no longer warrant extraordinary emergency conservation mandates," ACWA wrote.

Since the end of 2015, swaths of California from Santa Cruz to the Oregon border have enjoyed a conveyor belt of rain and snowstorms that have replenished reservoirs and built a snowpack that's been well above average in some areas of the Sierra Nevada.

In mid-December, about 45% of California was in exceptional drought, the most severe category. By April 19, that had dropped to only 21%, without any of the northern half of the state being included, according to the U.S. Drought Report, a weekly project released by a group of federal agencies.

Three of the state's biggest reservoirs, Oroville, Shasta and Folsom lake, are above their historical average. El Niño-driven storms have raised water levels to near capacity in Lake Shasta, seen here behind Shasta Dam.

But in Southern California, the media-hyped "Godzilla" El Niño never made an appearance. Though there was more rain than in recent years, it was nothing like previous El Niños and not enough to reduce calls to save water.

Perris Lake in Riverside County and Castaic Lake in Los Angeles County were well below their historical averages as of Thursday, according to the water board. The disparity can lead to competing priorities among water consumers and suppliers.

In an effort to suss out the future of California's hydrological infrastructure, agencies from across the state met in Sacramento on Wednesday.

Among the options discussed were switching the water conservation requirements from mandatory to voluntary, if and how the state should continue to monitor local districts' water usage and determining what's a viable amount of water storage for agencies across the state to prepare for future droughts.

The California water board is expected to announce possible adjustments to the state's requirements in early May, with a final vote coming as early as May 18.

If the state lifts the ban on homeowner associations punishing residents for brown lawns at the meeting, Blackhawk's enforcement, which takes effect June 1, could be then be legal, officials said.

"I think the question is, 'If we're still in a drought, in what sense do we maintain that 'we're in this together?'" said Felicia Marcus, chair of the water board. "The drought last year was the worst snowpack in 500 years. We're still in a drought, but certainly not in that level."

## DESERT WATER AGENCY

### PUBLIC INFORMATION ACTIVITIES

APRIL 2016

#### Activities:

- 3/17/16 Ashley Hudgens presented to the Palm Springs Hospitality Association on the drought and conservation.
- 3/19/16 DWA attended and provided the water trailer to the One-PS Picnic and Community Expo at Ruth Hardy Park.
- 3/20/16 DWA provided the water trailer for the Running Wild 4 Hope 5K run/walk at Ruth Hardy Park.
- 3/23/16 Ashley Hudgens attended the ACWA Communications Committee Southern California Tour.
- 3/23/16 Vicki Petek and Heather Marcks attended the Family Fun Fest at Palm Springs Stadium and DWA provided the water trailer.
- 3/25/16 Ashley Hudgens was on a live conservation segment with KESQ on water recycling.
- 3/30/16 Ashley Hudgens was on a live conservation segment with KESQ on Whitewater information and safety.
- 4/1/16-4/30/16 Vicki Petek conducted 9 Turf Buy Back post-conversion and follow-up inspections.
- 4/3/16 DWA provided the water trailer for Desert Horticultural Society's Garden Tour.
- 4/7/16 Ashley Metzger was on a live conservation segment with KESQ on the snowpack.
- 4/13/16 Ashley Metzger attended and presented to CVEP on PR and crisis communications.
- 4/13/16 Ashley Metzger attended and presented to Four Season neighborhood organization on conservation measures and enforcement.
- 4/14/16 Ashley Metzger was on a live conservation segment with KESQ on the Regional Water Rates Forum.

4/20/16	Ashley Metzger was on a live conservation segment with KESQ on drinking water.
4/20/16	DWA staff attended the Regional Water Rates Forum at UCR in Palm Desert.
4/21/16	Ashley Metzger attended and presented to One PS on conservation measures and enforcement.
4/22/16	DWA provided the water trailer to Cielo Vista Charter School's walk-a-thon.
4/22/16	Ashley Metzger presented to Desert Oasis Healthcare on conservation, the drought and El Niño.
4/23/16	Ashley Metzger presented to Sunrise Villas HOA on conservation, the drought and El Niño.
4/28/16	Ashley Metzger was on a live conservation segment with KESQ on emergency preparedness.

**Public Information Releases:** N/A

### **Water Conservation Reviews**

Palm Springs Biltmore Phase III  
California Convalescent Hospital  
Smoke Tree Inn

Village Racquet Club  
City of Palm Springs – Irrigation, Buildings, Parks

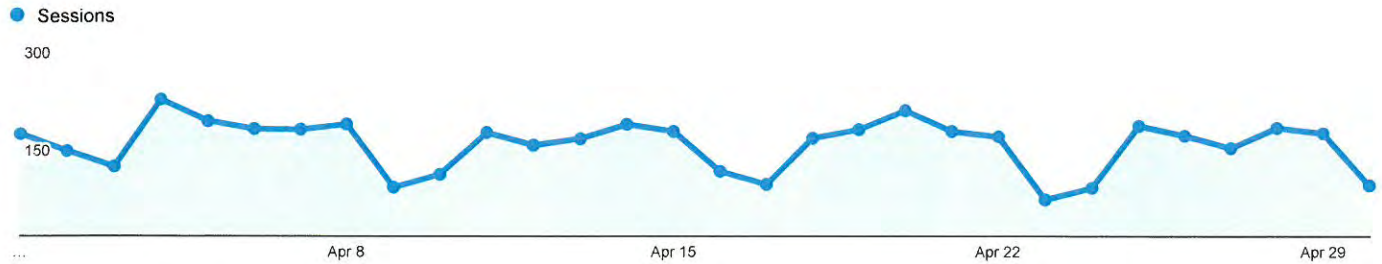
Water Conservation Reviews are annual mailings sent to large water users. The Reviews include a 5-year consumption report, facility map, and information brochures. The purpose is to help customers save water by summarizing their consumption, and offering suggestions for reducing usage. Occasionally, after viewing, the recipient may contact DWA for assistance in the form of a Mobile Lab Evaluation

## Audience Overview

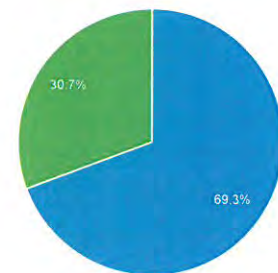
Apr 1, 2016 - Apr 30, 2016

All Users  
100.00% Sessions

### Overview



New Visitor Returning Visitor



% New Sessions

**69.31%**

Language	Sessions	% Sessions
1. en-us	3,439	81.94%
2. (not set)	543	12.94%
3. en-ca	44	1.05%
4. en-gb	39	0.93%
5. pt-br	31	0.74%
6. en	14	0.33%
7. de	7	0.17%
8. ja	7	0.17%
9. en-au	6	0.14%
10. es	5	0.12%

**Desert Water Agency**  
Public Services

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[www.dwa.org/restrictions](http://www.dwa.org/restrictions)

**IRRIGATION SCHEDULE**

SUN MON TUES WED THU FRI SAT

BEFORE 7:00 A.M. OR AFTER 7:00 P.M.

# Desert Water Agency Facebook Analytics April 2016

04/29/2016 2:12 pm	Don't wait for the next quake to get ready! Remember to store...			72		1		Boost Post
04/29/2016 2:07 pm	Checking for leaks takes only a few minutes. We even have help...			55		4		Boost Post
04/27/2016 7:47 am	Chance of showers means you have a chance to flush water by...			50		1		Boost Post
04/26/2016 5:16 pm	Presentations from last week's Regional Water Rate Forum are...			26		1		Boost Post
04/26/2016 5:16 pm	Shop WaterSense!			12		2		Boost Post
04/25/2016 3:28 pm	Reservoirs are on the rebound.			14		3		Boost Post
04/25/2016 3:28 pm	It looks like today will be another very windy day. Be safe out ther...			104		3		Boost Post
04/22/2016 7:07 am	Wind warning!			124		7		Boost Post
04/20/2016 3:44 pm	Happy Earth Day! Are you doing all you can to conserve water?			563		19		Boost Post
04/21/2016 3:02 pm	State Water Project allocation is increased again - this time up...			703		47		Boost Post
04/21/2016 3:02 pm	Water costs are rising here and across the state. Water rates in...			26		2		Boost Post
04/19/2016 6:19 pm	Refresh your shower routine!			100		8		Boost Post
04/19/2016 6:19 pm	Talk about bang for your buck! A gallon of our water delivered to y...			15		5		Boost Post
04/14/2016 2:07 pm	If you haven't already, please read our water use restrictions and fee...			151		10		Boost Post
04/14/2016 2:07 pm	Nearly nine in ten also said they'll use less water even after the d...			55		2		Boost Post
04/12/2016 10:58 am	Desert Water Agency has received an initial rebate funding for this...			20		1		Boost Post
04/12/2016 9:40 am	Small businesses - spend the morning with us tomorrow!			17		1		Boost Post
04/11/2016 6:02 pm	Reservoir levels have improved, but there is still a way to go for so...			99		3		Boost Post
04/11/2016 11:15 am	This is a great point in an interesting article about water rates W...			112		10		Boost Post
04/11/2016 11:15 am	Hoping for another rainy evening? #AprilShowers			142		9		Boost Post
04/08/2016 4:47 pm	Take a peak inside our spring newsletter for a letter from our se...			1,104		214		Boost Post
04/08/2016 7:45 pm	Paul's got a great point here. Sign up for a FREE smart controller...			30		5		Boost Post
04/07/2016 7:50 pm	Desert dwellers tend not to think much of much. Here's the dirt...			82		3		Boost Post
04/05/2016 4:27 pm	Interesting read on how heat in the Inland Empire impacted CA's...			30		1		Boost Post
04/04/2016 4:27 pm	Great speakers - important topic - mark your calendar!			35		13		Boost Post
04/04/2016 2:22 pm	Good lesson to be learned here - power outages may impact your...			16		3		Boost Post



**Desert Water Agency**  
Public Services

**DON'T DISMISS THE DROUGHT**

**Check your watering schedule today**

[www.dwa.org/restrictions](http://www.dwa.org/restrictions)

**IRRIGATION SCHEDULE**

SUN	MON	TUES	WED	THU	FRI	SAT

**BEFORE 7:00 A.M. OR AFTER 7:00 P.M.**

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**Top Tweet** shared 164,439 times

Sierra snowpack shows improvement, but not enough to end the #CAdrought  
[latimes.com/local/lanow/la](http://latimes.com/local/lanow/la)

Retweets 150

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Tap water in CA is held to higher standards than bottled AND is a fraction of a penny per gallon. [twitter.com/SoCalTapWater](https://twitter.com/SoCalTapWater)

[@OWAwater](#)

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**Top media Tweet** shared 20,000 times

Happy Earth Day! Celebrate by doing your part to [#savewater](#)  
[pic.twitter.com/5C0v5VQPkM](http://pic.twitter.com/5C0v5VQPkM)



Retweets 150

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Tweets 22

Followers 195

Retweets 19

**Most Retweeted**

5,407

Followers 2

April 21, 2016

**MEMORANDUM**

**TO:** GENERAL MANAGER AND BOARD OF DIRECTORS  
OF DESERT WATER AGENCY

**FROM:** BEST BEST & KRIEGER LLP

**RE:** APRIL 20 and 21, 2016 MEETINGS OF THE BOARDS OF DIRECTORS OF  
THE STATE WATER PROJECT CONTRACTORS AUTHORITY AND THE  
STATE WATER CONTRACTORS, INC.

The April 20, 2016 meeting of the State Water Project Contractors Authority was conducted at the offices of SWPCA in the Senator Hotel in downtown Sacramento. The April 21, 2016 meeting of the Board of Directors of the State Water Contractors, Inc., was conducted at the Tsakopoulos Library Galleria in downtown Sacramento.

1. SWPCA Board Meeting.

Byron Buck, General Manager of the State and Federal Contractors Water Agency, again participated in the SWPCA Board meeting, by telephone, for the discussion regarding the proposed habitat restoration program in the Delta. A draft agreement has been prepared by DWR for SFCWA to perform the "Tule Red" project, which will produce 610 acres of credit to be applied to the 8,000 acre restoration requirement set forth in the biological opinion for Delta Smelt. SFCWA has already begun performing that project, and therefore will receive an early progress payment from DWR for work already performed. Therefore, Byron anticipates needing only \$411,000 of "up front" money from Contractors willing to participate in the program, instead of \$750,000 originally projected. He anticipates being able to return the "up front" money within three to four years. It is possible that not all of the \$411,000 will be needed, which led to a discussion of possibly funding half of that now and the remainder at a later date, if needed. The thought had been to provide that funding from dues to be assessed to the members of the Delta Specific Project Committee. However, Kern County Water Agency reported that its Board has decided that it will not be in a position to advance any funds to cover its share of "up front" costs for that project, due to low revenues for its member agencies. In fact, KCWA reported that its Board had voted to reduce its share of general dues paid to SWPCA by 10%, due

to its economic distress. Thus, the other members of SWPCA, as well as the members of the Delta Specific Project Committee, will need to determine how that situation is to be handled. Currently the Joint Powers Agreement for SWPCA and the Delta Specific Project Agreement for that committee do not provide for reduced levels of participation. Dues must be paid proportionately, and the only alternative is for a member to withdraw from the Joint Powers Authority and from the Delta Specific Project Committee. However, the other SWPCA members would prefer not to lose Kern County Water Agency from either group. This is a matter that the other members will need to consider in setting the dues for the upcoming year.

2. SWC Committee Meetings.

Following the SWPCA Board meeting, most of the participants attended the SWC Committee meetings conducted that afternoon in the Resources Building. A number of topics were discussed at those meetings.

In the discussion of the Cal Water Fix project (the tunnel project), one item of note was that the long term average allocation from the State Water Project without the tunnel improvements is projected to be only 48% of Table A Amounts, and the long term average allocation with the tunnel improvement project is projected to be 62% of Table A Amounts. Under current conditions, the long term average is at approximately 60%, but that is expected to be further reduced over time due to endangered species issues. Another item of note with respect to the Cal Water Fix program is the projection that the tunnels will result in an increase of approximately one million acre-feet per year of water transfer capability, without carriage losses through the Delta. However, that projection is also subject to adjustment depending upon changes in the flow requirements through the Delta to protect endangered species.

During the committee discussion, it was revealed that the previous Friday the United States Fish & Wildlife Service had dropped a bomb by stating that it would seek reconsultation of the biological opinion for the Delta Smelt so as to increase flow requirements through the Delta as an enhanced effort to try to save that species. That would effectively pull the rug out from under the Cal Water Fix tunnel improvement project. The Contractors believe that there is no basis in science for reaching a conclusion that additional flows will improve Delta Smelt populations. It is viewed as a desperate measure by the Fish & Wildlife Service to

save a species that is nearing extinction. This proposal will probably encounter political resistance, and therefore may be reversed. However, the mere suggestion weakens confidence in the tunnel improvement project as a measure that will protect existing water supplies. Subsequent discussion of the topic revealed that at a recent symposium on Delta Smelt, the majority of biologists agreed that flow does have an effect on Smelt populations, but most biologists also agree that it is not a limiting effect. There are other limitations that have a greater impact on Smelt survival, such as reduced habitat, reductions in the food supply, contamination, and predation. In fact, the Longfin Smelt are probably at greater risk of extinction than the Delta Smelt. The feeling is that the Delta Smelt can survive on their own, without human intervention as was necessary in the case of the California Condor, for example.

There was also discussion of a report issued by DWR which distinguishes “natural” flows from “unimpaired” flows. The State Water Resources Control Board has acted on the false assumption that unimpaired flows in the Delta would replicate what natural flows were historically. However, the truth is that natural flows included frequent flooding over river banks, and the spreading of water into areas where vegetation consumed much of the available water supply before it ever flowed from the Delta. Thus, unimpaired flows significantly overestimate natural flow conditions. In fact, the study reveals that natural flows would have resulted in the loss of as much water from the Delta as the Contractors take today, for water supply purposes.

3. Water Supply Report.

At the SWC Board meeting, John Leahigh from DWR provided a positive report regarding the State’s water supply. He stated that the State Water Project is finally getting the full impact of the “miracle” March, with runoff filling the reservoirs. Lake Oroville is likely to top off in May. Existing storage at Oroville is encroaching into flood control space. However, the Feather River water rights holders will be entitled to releases to satisfy their rights. As of the date of the meeting, DWR was releasing the minimum quantity permitted from Oroville. Flows through the Delta were at 17,500 cubic feet per second. Total storage in the San Luis Reservoir was a little more than one million acre-feet, and the SWP share of that was a little more than 600,000 acre-feet. Precipitation in the Northern Sierra was at about 120% of average, in the San Joaquin area it was just slightly above average, and in the Tulare area it was slightly below

average. John reported that precipitation averages tended to decline as you traveled further south. The snow pack was at 57% of average in the Northern Sierra, approximately 59% of average in the Central Sierra, and less than that in the Southern Sierra. Warm conditions were resulting in melted snow, which was being captured in the reservoirs. As of the date of the meeting, Oroville was at 93% of capacity, and 118% of average for that date. In general, the northern reservoirs were doing very well, and the southern reservoirs were not doing well at all. This points out the difficulty in moving water through the Delta. John pointed out that the existing hydrology, using the 90% probability projection, supported an allocation of 55% or possibly 60%. (Later that day, DWR announced an increase in the allocation to 60% of Table A Amounts.)

4. Legislative Report.

Terry Erlewine reported on several bills of interest. AB 1713 has been introduced to present an initiative measure on the ballot for approval or disapproval of a “peripheral canal” (which is intended to mean the tunnel project). Terry reported that the bill barely passed out of committee, and probably only got out of committee as a concession to the author, but that he expected the bill to be killed in the next committee or on the floor of the Assembly. He said that if the bill is passed by the Legislature, it will likely be vetoed by Governor Brown.

Terry reported that the Contractors will be watching AB 2480, which is legislation that ostensibly supports watershed management. The concern is that the bill could end up being a vehicle to assess charges to DWR for management of the Feather River watershed.

Terry also reported that legislation may be introduced to eliminate a requirement in the Central Valley Project Improvement Act that requires the number of striped bass in the Delta to double. The proposed Federal legislation would eliminate that requirement from the Act. SWC consultant Chuck Hanson testified before a congressional committee in Washington that the legislation requiring an increase in the number of striped bass would actually be detrimental, as the striped bass are predators for other endangered species, such as the Delta Smelt.

5. 2016-2017 SWC Objectives.

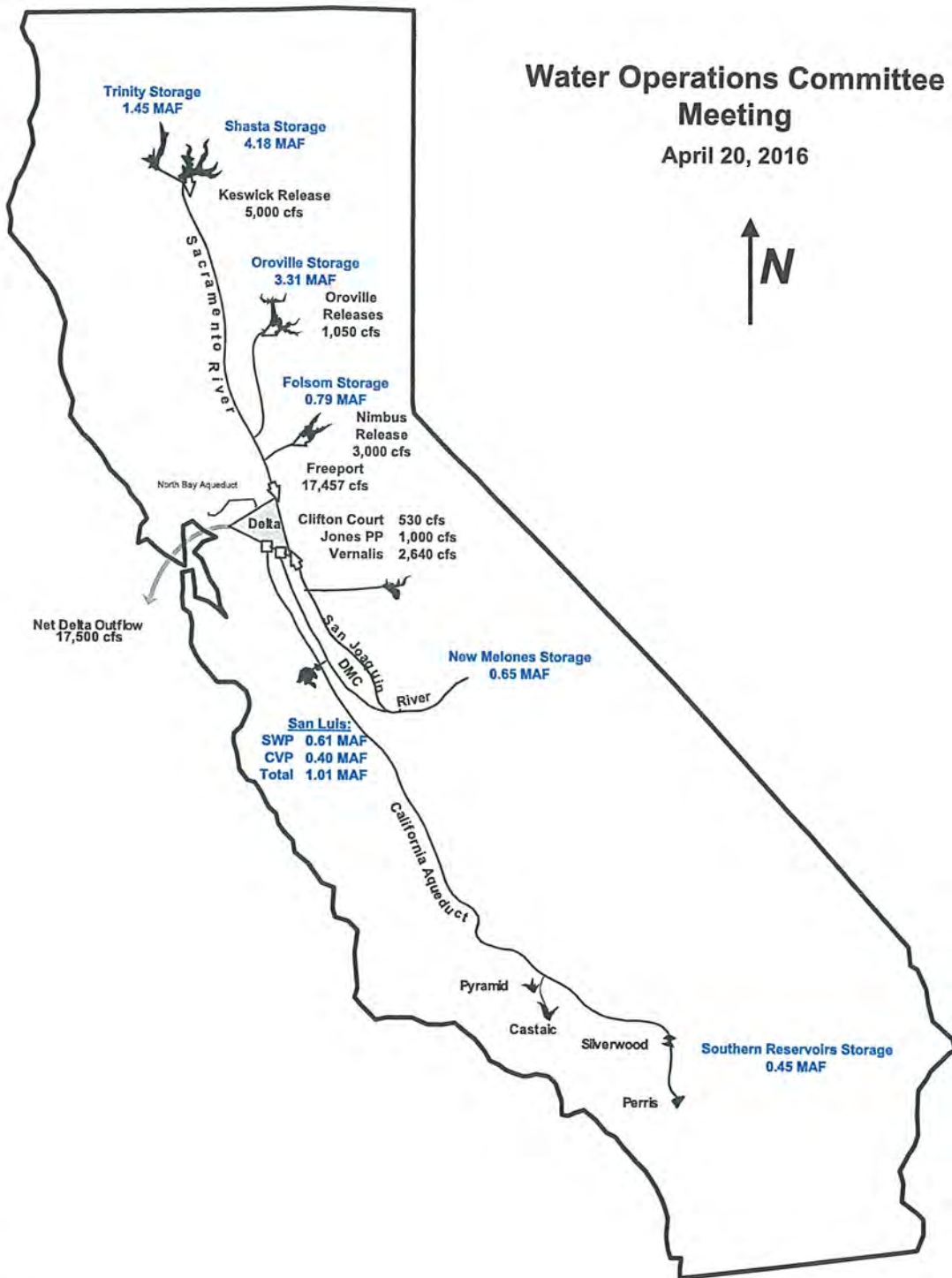
There was discussion of anticipated objectives for the upcoming fiscal year for the State Water Contractors. The objectives will be presented at the annual membership meeting of the State Water Contractors in May. The proposed objectives are divided into three categories: high priority, medium priority, and low priority. A photocopy of the power point presentation is enclosed with this memo.

MICHAEL T. RIDDELL



# Water Operations Committee Meeting

April 20, 2016

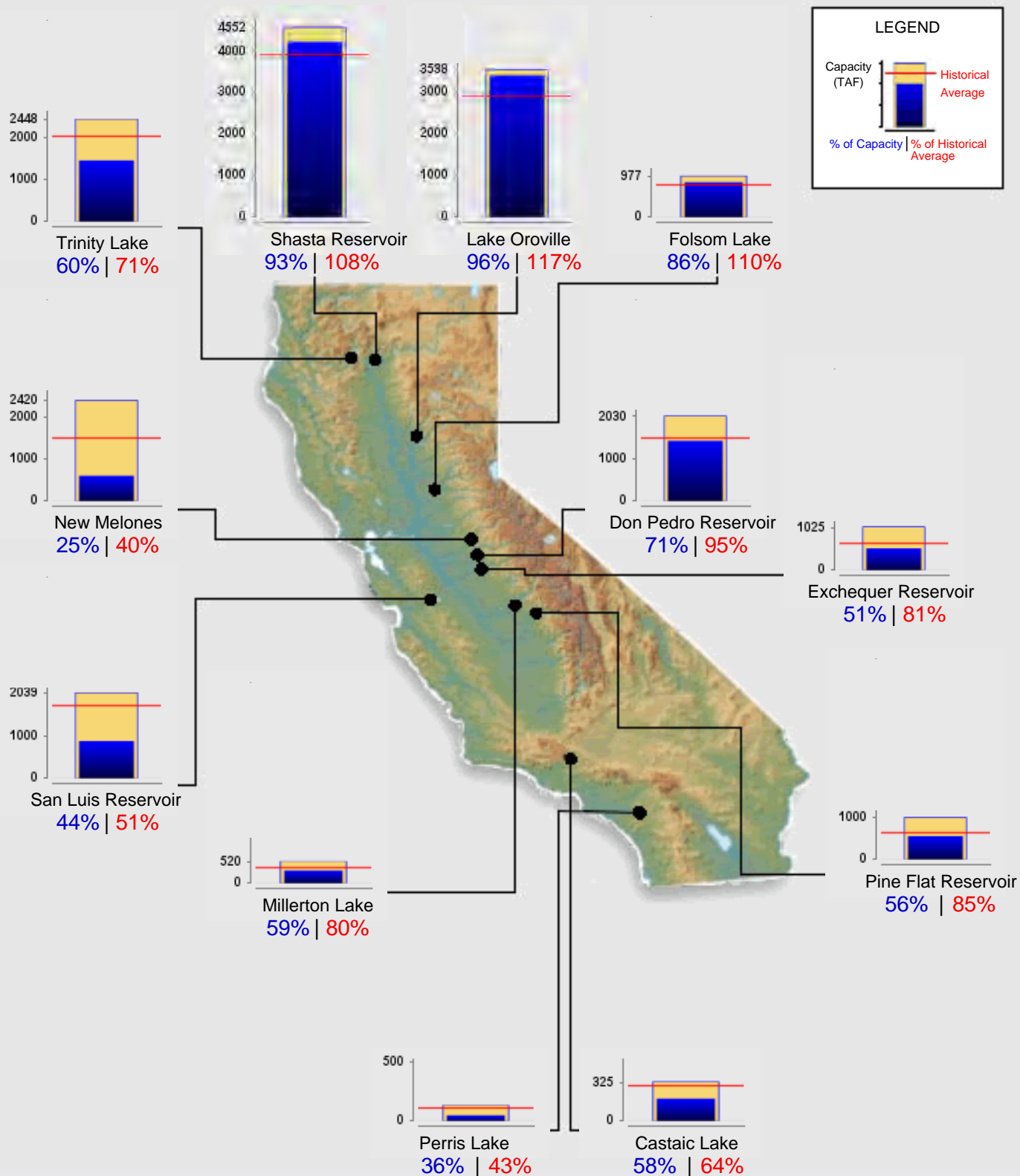




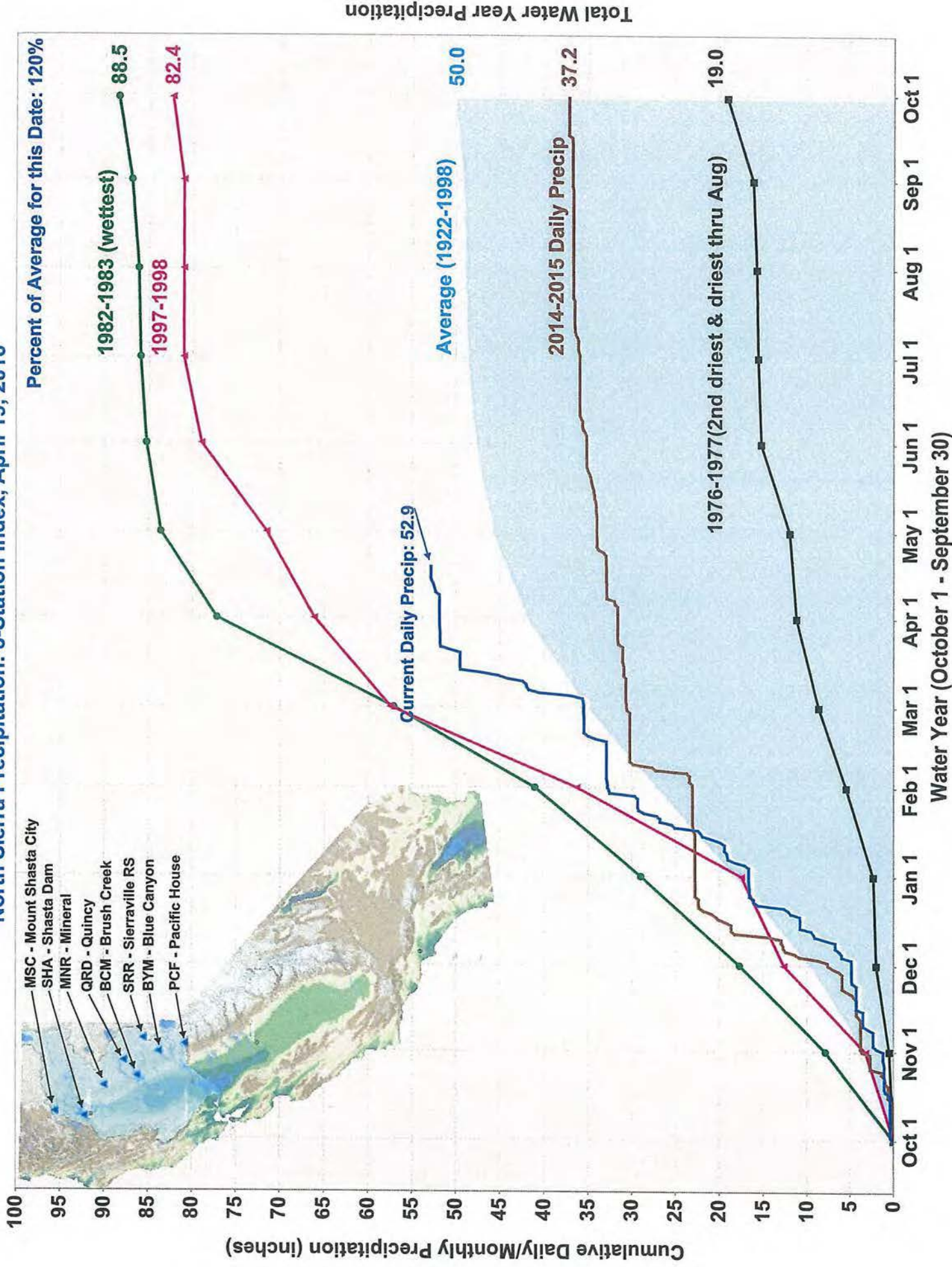
# Reservoir Conditions

Ending At Midnight - May 12, 2016

## CURRENT RESERVOIR CONDITIONS

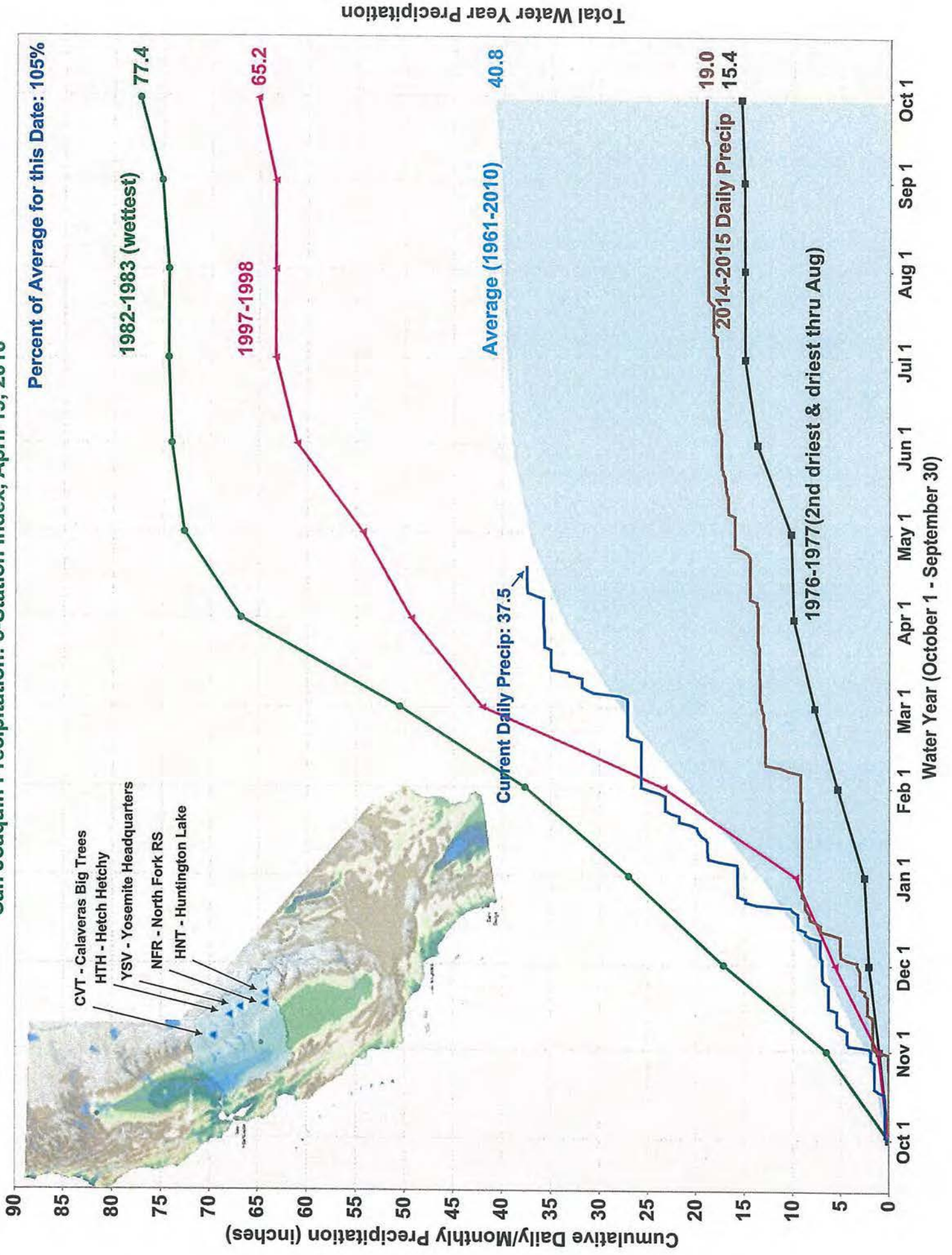


# North Sierra Precipitation: 8-Station Index, April 19, 2016

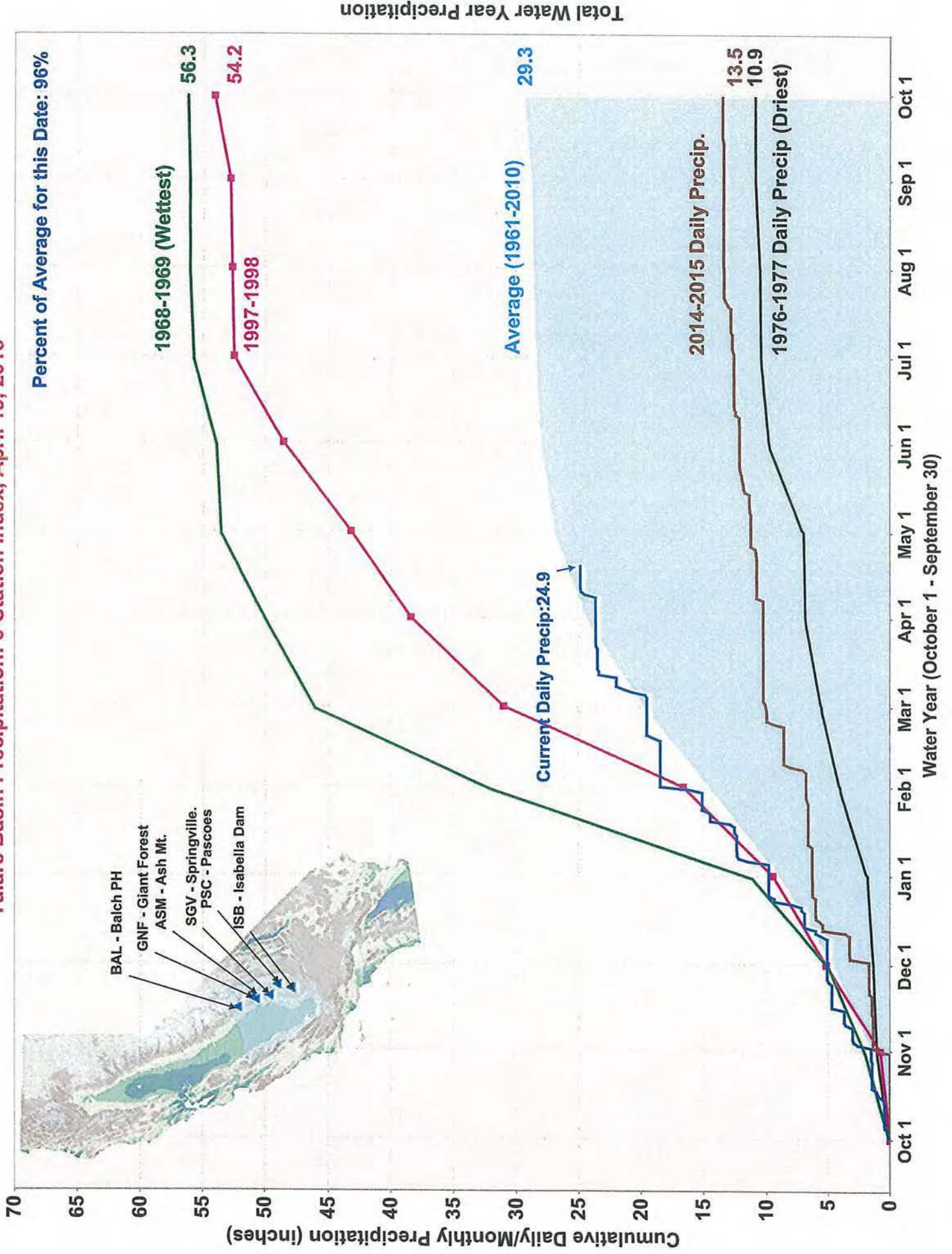




# San Joaquin Precipitation: 5-Station Index, April 19, 2016

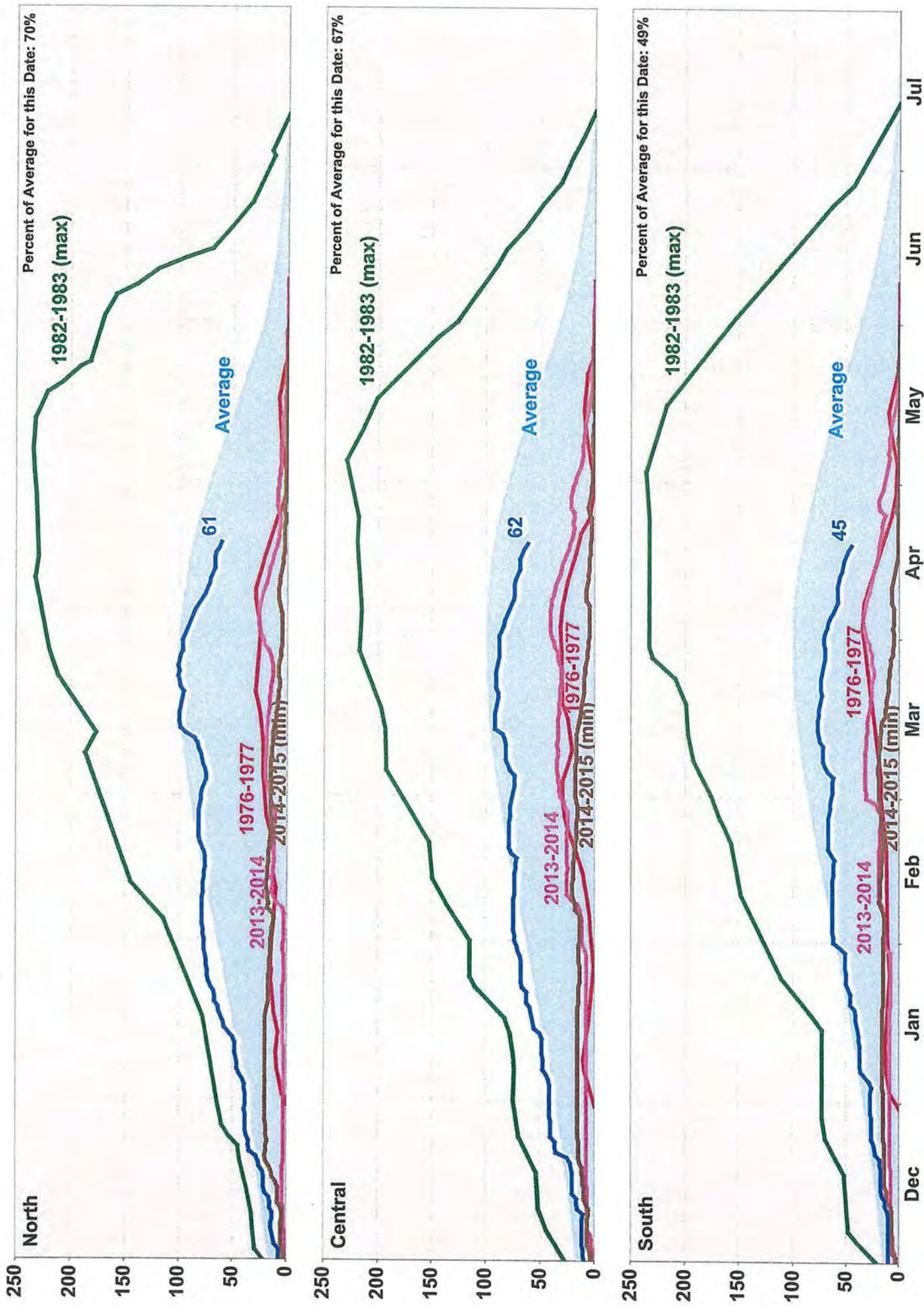


# Tulare Basin Precipitation: 6-Station Index, April 19, 2016





California Snow Water Content, April 19, 2016, Percent of April 1 Average



Statewide Percent of Average for April 1: 57%

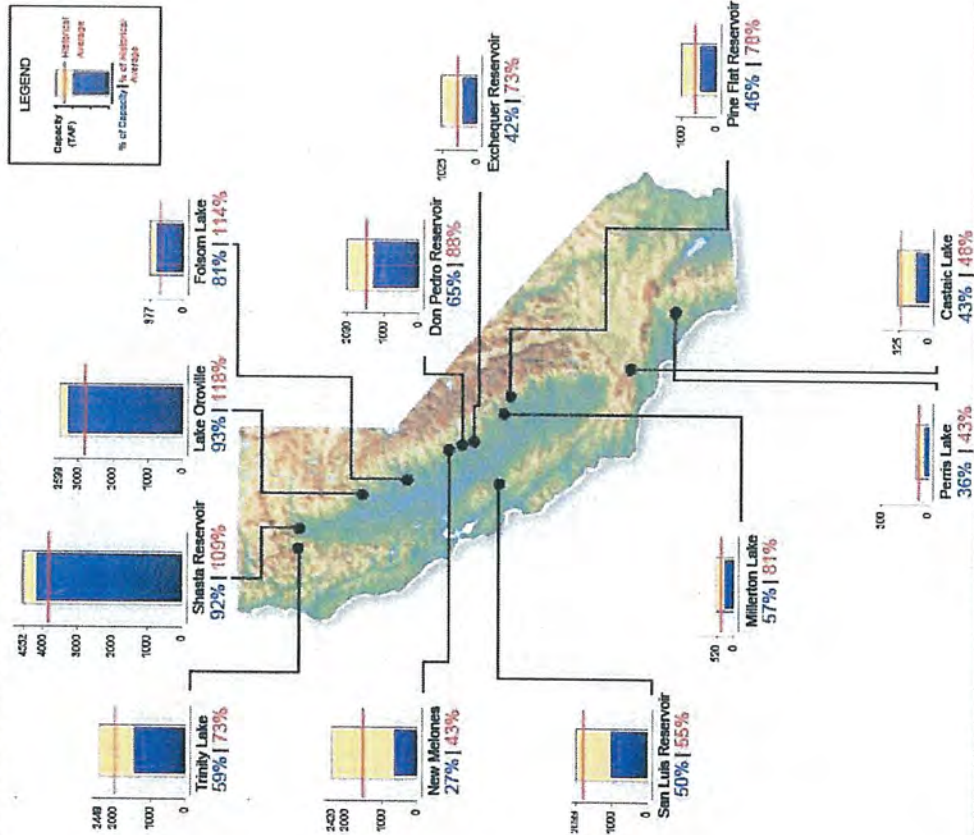
Statewide Percent of Average for Date: 63%



# Reservoir Conditions

Ending At Midnight - April 18, 2016

## CURRENT RESERVOIR CONDITIONS

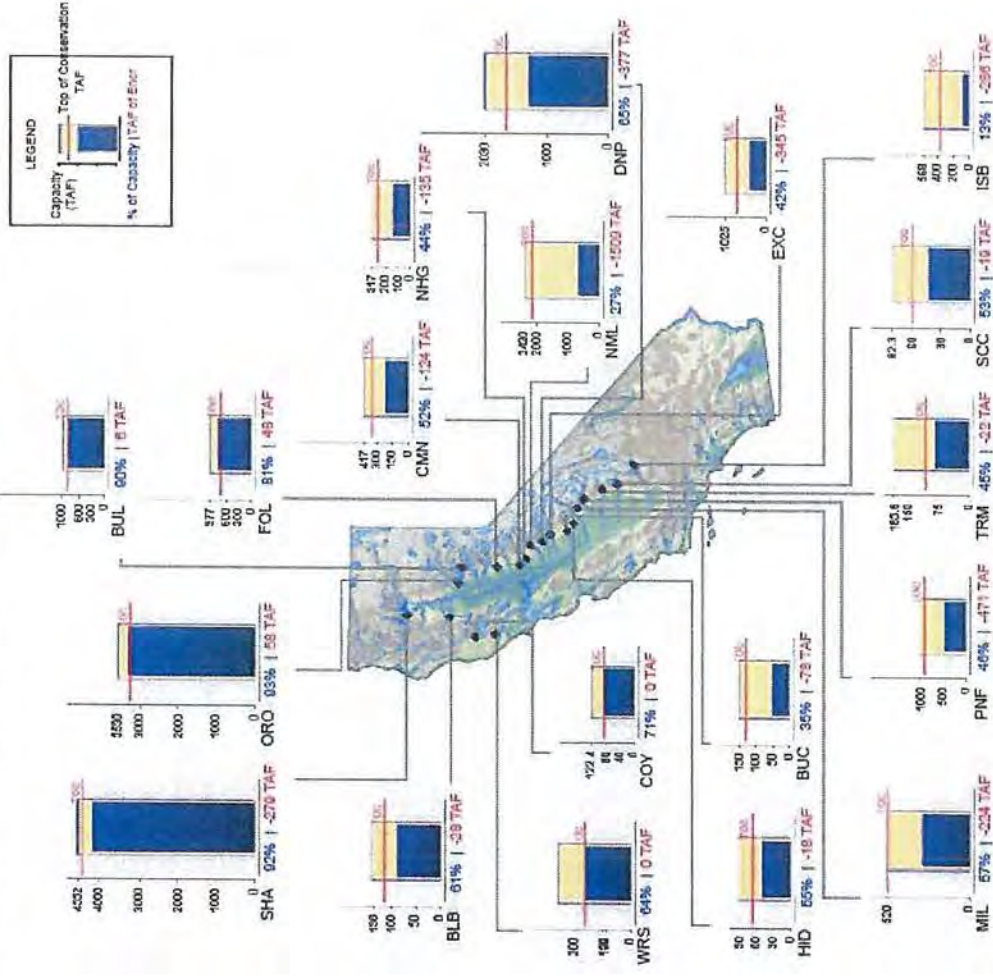


Graph Updated 04/19/2016 02:15 PM

	% Cap	% Avg
Trinity	59	73
Shasta	92	109
Oroville	93	118
Folsom	81	114
New Melones	27	43
San Luis	50	55

# Reservoir Conditions

TOP OF CONSERVATION CONDITIONS CENTRAL VALLEY RUSSIAN RIVER FLOOD CONTROL RESERVOIRS Ending At Midnight: April 18, 2016



	% Cap	Encr (TAF)
Shasta	92	-279
Oroville	93	58
Folsom	81	49
New Melones	27	-1509



## State Water Project Objectives for FY 2016-2017

	Objective	Description	Priority	SWC Assignment
Energy Operations	Strategic SWP Power and Transmission plan	Address threats and opportunities to SWP Operations and Economics under Post-2020 Energy Policy	●	Haines
	Near-term Risk Management	Improve understanding of spot and near-term resource procurement and practices to manage risk	●	Haines
	Greenhouse Gas/Renewables Policies	Work with DWR on appropriate greenhouse gas and renewables policies that reflect SWP utility characteristics and rate concerns	●	Haines
	FERC Relicense Settlement	Advocate solutions related to obtaining new license for the Oroville complex consistent with the Settlement agreement. Initiate relicensing activities associated with SoCal facilities	●	Haines
	Defend SWP against Energy Liabilities and Claims	Assure proper legal representation for potential litigation	○	Haines
Infrastructure	Hyatt Unit 1,3,5 new runners, bearings, TSV refurb	Track progress, cost, and operation impact for the replacement of new runners and bearings for units 1, 3, 5 to restore reliability and eliminate high downthrust loads	●	Chapman
	Oroville Dam River Valves	Track progress, cost, schedule, and impact to operations related to the follow-up work on the 2014 emergency restoration.	●	Chapman
	Sisk Dam Seismic Stability & Dam Raise Study	Work with the USBR and DWR in the review of the new seismic stability analysis and potential remedial actions for the embankment. Also participate in the USBR's Project Alternative & Risk study for a potential dam raise	●	Chapman
	Aqueduct Subsidence, Liner Integrity, and SWP Capacity Retention	Work with DWR in determining the quantity, rate, and capacity reduction impacts of/and subsidence in the San Joaquin Valley. Target projects/repairs to assure capacity is restored or preserved to assure long-term operational reliability	●	Chapman
	Motor/Generator Refurbishments	Track cost/progress/schedule and operational impact of new stator core, rewinds, and pump casing reconditioning. Long-term task in several of SWP plants.	●	Chapman
	Edmonston Pump Replacement/Refurb	Track performance/efficiency of four new units. Work with DWR in the value engineering process to select action (replacement vs. refurbishment) for aging east wing units	●	Chapman
	SWP Asset Management	Work with DWR as they develop/document/implement an asset management system and capital improvement program including assessing vulnerabilities, the required risk mitigation strategies and management policy and objectives.	●	Chapman
	Perris Dam-Remediation of seismic deficiency	Track cost/progress/schedule on foundation strengthening and embankment stabilization, outlet tower stability improvement, and emergency release facility improvements.	●	Chapman
	Thermalito Plant Post-fire rebuild	Track the progress, cost, and operation impact related to the restoration and modernization of the Thermalito plant	●	Chapman
	Control System Upgrade	Track progress, cost, schedule on the implementation of phase IV of the control system upgrade, which involves upgrading SWP plants south of the Delta	○	Chapman
	Fire System Modernization	Track the design and implementation of DWR's new corrective measures and proactive fire systems to increase personnel safety and prevent catastrophic fires in SWP facilities.	○	Chapman
	Valve Rehab/Replacements	Track progress, cost, and schedule on the replacement or refurbishments of major valves within SWP plants.	○	Chapman



## State Water Project Objectives for FY 2016-2017

Objective		Description	Priority	SWC Assignment
Business Processes	Financial Enhancements	Coordinate with DWR on funding and financing options for a new conveyance facility and expanding water management tools within the SWP contract. Coordinate with DWR to develop billing and reporting system to implement Freeze-Go. Support Contractor's SWRDS Finance Committee objectives.	●	Ramsay/Lightle
	Reporting	Coordinate with Contractors to develop business requirements for SWP reporting. Coordinate with DWR for inclusion of requirements in Financial Management Enhancement Project, Stage 1-3.	●	Ramsay/Lightle
	Cash and Financing Oversight	Work with DWR to finalize the Project Cost and Debt Service Reconciliation, and determine options for Habitat Restoration funding	●	Ramsay/Lightle
	Job Costing Oversight (Actual Costs)	Provide oversight over DWR's actual expenditures compared to estimated costs	●	Ramsay/Lightle
	Future Capital Projects and Capital Financing Oversight	Develop a process to track, plan and prioritize all existing and foreseeable capital projects which are funded by the SWP Contractors	●	Ramsay/Lightle
	Cost Recovery/Statement of Charges Oversight (Estimated Costs)	Provide oversight over DWR's estimated costs and recovery of those costs through review of the future project cost projections, the Delta Water Charge calculation, and Rate Management Credits review	●	Ramsay/Lightle
	Financial Audit and Dispute Oversight	Work with Contractors and DWR to identify and resolve existing and potential protest items	●	Ramsay/Lightle
	Davis-Dolwig Act Funding	Work with Contractors and DWR to obtain credits for past recreation costs	○	Ramsay/Lightle
	California WaterFix	Obtain ROD for California WaterFix. Proceed with Implementation Activities including SWRCB Change Petition	●	Erlewine
	Water Management Contract Amendment	Coordinate SWP Contractors involvement in Contract Amendment discussions on California WaterFix Cost Allocation and Water Management Activities	●	Erlewine
Water Supply	Coordinated Operations Agreement	Coordinate with DWR and SWC members in developing information for and participating in discussions of possible COA modifications	●	Febbo
	State Water Resource Control Board Activities	Present testimony and participate in hearings on updating the Bay-Delta Water Quality Control Plan and related activities such as San Joaquin River water rights and illegal diversions	●	Morris
	Facilitate Water Transfers	Work with DWR and potential sellers in the Sacramento Valley to implement dry year transfers, including facilitating regulatory approvals. Begin planning for implementation of long-term transfers	●	Chapman
	Upstream Water Supply Augmentation	Work with CVP Contractors and upstream water users to identify water supply operations to address existing and potential regulatory obligations	●	Erlewine
	Delta Levee Strategy	Work with MWD and DWR in identifying and evaluating alternative approaches for levee improvements to protect SWP water supplies	●	Erlewine
	OCAP and Regulatory Compliance	Collaborate with DWR on planning and implementation of required habitat and other RPAs under OCAP Biological Opinions. Monitor progress of implementation of the Suisun Marsh Agreement	●	Febbo

## State Water Project Objectives for FY 2016-2017

Objective	Description	Priority	SWC Assignment
Water Operations Improvements	Identify and implement Delta and/or upstream operations strategies to minimize reductions to near term exports and increase water supply reliability using existing facilities or with additional features	●	Febbo
Water Operations Evaluation	Develop documentation for ongoing Delta water supply operations including water losses from regulatory actions. Develop analysis tool to evaluate water supply and predict water supply allocations during the runoff season	●	Febbo
Delta Related Litigation	Defend or intervene in litigation to protect SWP water supply. Pursue methods for State Water Resources Control Board to protect stored water through curtailments and participate in litigation and administrative proceedings that could impact stored water. Continue challenging the CEQA and authority of the Delta Stewardship Council to implement certain Delta Plan activities.	●	Morris
Collaborative Adaptive Management Team	Participate in Collaborative Adaptive Management Team through membership on CAMT, identification and formulation of study projects and involvement in work efforts of scoping teams.	●	Erlewine
Wastewater Discharge and Water Quality Issues	Follow-up on remaining litigation efforts related to Sacramento Regional CSD discharge permits. Participate in development and review of discharge standards for other Delta Watershed dischargers. Participate in processes related to methylmercury regulations	○	Morris
<p>● Priority I (Highest Priority) Objectives</p> <p>● Priority II (High Priority) Objectives</p> <p>○ Priority III (Medium Priority) Objectives</p>			

**STAFF REPORT  
TO  
DESERT WATER AGENCY  
BOARD OF DIRECTORS**

**MAY 17, 2016**

**RE: APRIL 2016 WATER USE REDUCTION FIGURES**

Desert Water Agency and its customers achieved a 23 percent reduction in total water production during April 2016 compared to the same month in 2013 – the baseline year used by the State Water Resources Control Board (State Water Board) to measure statewide conservation achievements. Desert Water Agency's cumulative water savings June through April is 25 percent.

To comply with Governor Brown's November 13, 2015 Executive Order to continue reducing statewide water use, the State Water Board extended mandatory restrictions and updated mandatory conservation goals for some urban areas based on factors like climate, growth and sustainable supply. The adopted regulations require DWA to achieve a mandatory 32 percent reduction. Another Executive Order from the Governor issued on May 9, 2016 extends emergency restrictions through January of 2017; however, that same day the State Water Board announced a revised method that agencies can use to determine their conservation standard. The new standard would go into effect in June.

Below is additional information reported to the State Board for April 2016.

Water Production for April 2016	1,998.9 AF
Water Production for April 2013	2,594.2 AF
Quantity of potable water delivered for all commercial, industrial, and institutional users for the reporting month	595.2 AF
The percentage of the Total Monthly Potable Water Production going to residential use only for the reporting month	66%
Population (inclusive of seasonal residents)	105,500
Estimated R-GPCD	135.7
How many public complaints of water waste or violation of conservation rules were received during the reporting month?	27



How many contacts (written/ verbal) were made with customers for actual/ alleged water waste or for a violation of conservation rules?	78
How many formal warning actions (e.g.: written notifications, warning letters, door hangers) were issued for water waste or for a violation of conservation rules?	75
How many penalties were issued for water waste or for a violation of conservation rules?	54
<p>Comments: Desert Water Agency streamlined its water use violation policy starting March 1, 2016.</p> <p>The Agency's service area is highly seasonal making population analysis a complex task. The State Water Resources Control Board (State Board) analyzes data on a per capita basis. Historically, DWA has submitted data based on the permanent population of the service area; however that data does not accurately reflect water use in DWA's service area which has a highly seasonal population. Based on local data, the correct population is higher than previously reported. The Residential Gallons Per Capita Per Day (R-GPCD) is being submitted using the corrected population.</p> <p>DWA would like it noted that the amount of fresh water outflow to the ocean during the month of April was 1,545,738.8 acre feet.</p> <p>Additionally, since it began recycling water Desert Water Agency has reclaimed 87,052 acre feet. If our recycled water production for April was taken into consideration against our potable production, the conservation achieved would have been several percentage points higher.</p>	