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. EMPLOYEE INTRODUCTION
   
3. APPROVAL OF MINUTES – April 18, 2017
   
4. GENERAL MANAGER’S REPORT
   
5. COMMITTEE REPORTS –
   a. Executive – April 25, 2017
   b. Finance – April 26, 2017
   
6. 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.

7. ITEMS FOR ACTION
   a. Water Use Violation(s) – Civil Penalty Hearing(s)
   b. Request Adoption of Resolution No. 1157 Adopting CEQA Guidelines
   c. Request Approval of July 1, 2017 Cost-of-Living Salary Increase for DWA Employees and General Manager
   d. Request Authorization for General Manager to Enter into MOU with BLM and CVWD for Reauthorization of Whitewater River Groundwater Replenishment Facility
   e. Request Authorization to Enter into Agreement Regarding 2017 Article 21 and Turnback Pool Participation

8. ITEMS FOR DISCUSSION
   a. State Water Contractors' Meeting – April 20, 2017
   b. Director’s Report on Meeting/Seminar Attendance

9. OUTREACH & CONSERVATION
   a. Media Information
   b. Activities

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: Mission Springs Water District vs. Desert Water Agency

D. CONFERENCE WITH REAL PROPERTY NEGOTIATORS
   Pursuant to Government Code Section 54956.8
   Property: 0.504 acre west of Indian Canyon Drive between Racquet Club Rd. and Via Olivera
   APN No. 504-260-026 and portions of APN No. 504-260-025 and 504-260-027
   Agency Negotiators: Mark S. Krause, General Manager and Steven L. Johnson, Asst. General Manager
   Negotiating Parties: Ayres Advisors
   Under Negotiation: Price and terms

E. PUBLIC EMPLOYEE PERFORMANCE EVALUATION
   Pursuant to Government Code Section 54957
   Title: General Manager

12. RECONVENE INTO OPEN SESSION – REPORT FROM CLOSED SESSION

13. ADJOURN
The following employee is scheduled to attend and be introduced to the Board of Directors at the May 2, 2017 Board Meeting:

<table>
<thead>
<tr>
<th>Name</th>
<th>Date Employed</th>
<th>Classification/Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caitlin Allen</td>
<td>October 28, 2016</td>
<td>Snow Creek Security</td>
</tr>
</tbody>
</table>
Caitlin Allen

Caitlin Allen joined the Agency as our Snow Creek Security on October 28th and has completed her six-month introductory period.

Before coming to DWA, Caitlin worked as an emergency medical/police dispatcher. Caitlin also served in the United States Marine Corps as an aircraft rescue firefighter.

Caitlin has successfully secured our Snow Creek and Falls Creek properties. She has also provided security monitoring to the Reclamation Plant and Operations Center.

Her practical experience and ability to remain “cool under fire” has been an asset to the Agency in preventing unauthorized trespassing to our facilities.
President Cioffi opened the meeting at 8:00 a.m. and asked everyone to join Vice President Stuart in the Pledge of Allegiance.

President Cioffi welcomed Ms. Thesing and asked her to provide her presentation.

Ms. Thesing, Director of Insurances Services for ACWA/JPIA stated DWA has been a founding member since 1979. She thanked the Board and staff for their efforts in reducing the Agency’s loss history ratio. She then presented the Agency with a refund check in the amount of $70,026.

President Cioffi called for approval of the April 7, 2017 Regular Board meeting minutes.

Director Oygar moved for approval. After a second by Secretary-Treasurer Bloomer, the minutes were approved as written (Director Ewing absent, Vice President Stuart abstained due to his absence).
President Cioffi called upon General Manager Krause to provide an update on Agency operations.

Mr. Krause stated on April 5 at approximately 3:00 p.m. Construction staff responded to a hit fire hydrant on Mesquite Ave., west of Farrell Dr. The hydrant was hit by a bobcat skid steer working with a landscape company. Staff replaced the hydrant and put it back in service. The water loss was from a fully open 6-inch bury which ran for approximately 20 minutes. A police report was made.

Mr. Krause provided an update on Whitewater Basin water deliveries. As of April 11, the hydro plant has generated 282,079 kwh, a rate of 25,643 kwh per day. Staff anticipates generating 769,305 kwh for the month of April and will collect an estimated amount of $68,500 from SCE.

Continuing his report, Mr. Krause noted that Metropolitan Water District’s Board recently appropriated $1.5 million for participation in the Sites Reservoir planning phase.

Mr. Krause provided an update on the 2017 Turnback Pool, Article 21 and Yuba Accord Water orders.

Assistant General Manager Johnson discussed the current system leak data.

Mr. Krause reminded the Board and staff of today’s Blood Drive, which starts at 9:00 a.m.

Concluding his report, Mr. Krause noted several meetings and activities he participated in during the past several weeks.

President Cioffi opened the meeting for public input.

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

President Cioffi called upon Secretary-Treasurer Bloomer to provide an overview of financial activities for the month of March 2017.

Secretary-Treasurer Bloomer reported that the Operating Fund received $1,595,852 in Water Sales Revenue and $63,281 in Reclamation Sales Revenue. $360,328 was received in Solar Field II Rebates (Reclamation Plant). Included in the Miscellaneous receipts is $10,863 from CVWD for participation in the CV Water Counts program. $2,366,360 was paid out in Accounts Payable. Year-to-date Total Water Sales are 11% over budget, Year-to-date Total Revenues are 9% over budget, and Year-to-date Total Expenses are 16% under budget.
Reporting on the General Fund, Ms. Bloomer stated that $50,707 was received in Property Tax Revenue. $30,424 was received in Whitewater Hydro Power Sales for February 2017. $167,457 was paid out in Sites Reservoir Committee Participation (Class I & II Water). $1,016,004 was paid out in State Water Project Charges (YTD payments: July – March = $14,005,058).

Reporting on the Wastewater Fund, Ms. Bloomer stated that $10,979 was received in Sewer Capacity charges. There are a total of 66 contracts (46 Cathedral City Cove and 20 Dream Homes). One contract was paid in full with total delinquents of 27 (41%). $153,729 was paid out in Accounts Payable.

President Cioffi called upon General Manager Krause to present staff’s request for Board action on a claim submitted by Elizabeth Pearson.

Mr. Krause stated Ms. Pearson claims the Agency is responsible for property damage due to a hit fire hydrant 10 blocks from her rental property that occurred on March 9, 2017. Ms. Pearson is claiming damage to a swimming pool and landscape clean up in the amount of $2,572.92; she indicated that she has a $2,500 homeowner’s insurance deductible.

Mr. Krause noted there is evidence that a vehicle struck the hydrant (photos of tire tracks on the surrounding curb). Damage to the hydrant consisted of a cracked cap with the impact causing the bolts to shear off. The Agency is not responsible for individuals who hit or damage its property. Staff recommends the Board reject the claim for damages filed by Elizabeth Pearson.

Vice President Stuart made a motion to reject the claim filed by Elizabeth Pearson. Director Oygar seconded the motion, which carried unanimously (Director Ewing absent).

Mr. Krause stated that staff will be forwarding the claim to ACWA/JPIA for their follow up.

President Cioffi called upon Finance Director Krieger to present staff’s request for adoption of Resolution No. 1156 – Statutory Pass-Through Payments.

Mr. Krieger stated that staff recently received correspondence from the City of Desert Hot Springs in regards to a proposed refunding bond issue of the Successor Agency to the Redevelopment Agency for the City.

In order for the City to proceed with the refunding bond issue, it needs a subordination acknowledgement from DWA. The refunding
bonds will not be issued unless the new debt service is lower than the debt service on the existing bonds. Legal Counsel has prepared this resolution. Staff recommends adoption of Resolution No. 1156.

Director Oygar moved for adoption of Resolution No. 1156. President Cioffi seconded the motion, which carried unanimously (Director Ewing absent).

RESOLUTION NO. 1156

A RESOLUTION OF THE BOARD OF DIRECTORS OF DESERT WATER AGENCY APPROVING THE SUBORDINATION OF STATUTORY PASS-THROUGH PAYMENTS TO DEBT SERVICE PAYMENTS ON REFUNDING BONDS TO BE ISSUED BY THE SUCCESSOR AGENCY TO THE REDEVELOPMENT AGENCY FOR THE CITY OF DESERT HOT SPRINGS FOR THE MERGED REDEVELOPMENT PROJECT AREA


Mr. Johnson stated on April 11, the Agency received four bids for the subject work. Borden Excavating, Inc. submitted the lowest responsive bid for $2,314,777, approximately 11.5% lower than the second low bid from T.E. Roberts, Inc. The 2016/2017 Capital Improvement Budget includes Work Order No. 16-160 for $3,372,600 including project engineering, overheads, construction and inspection. As a result of the low bid, staff anticipates having approximately $600,000 in additional funds remaining. Staff is exploring the possibility of replacing the main on Saturnino Rd., between Alejo Dr. and Amado Dr. Based on the bid values from Borden, the construction cost estimate for Saturnino Rd. is $480,000 with an estimated cost of $20,000 and additional Agency labor of $33,000. This work will add 40 working days to the contract. Staff recommends awarding the contract for said work to Borden Excavating, Inc. in the amount of $2,314,777. Based on bidding documents, the original project completion date is November 17, 2017. If Saturnino Rd. is added, the completion date will be January 12, 2018.

In response to Director Oygar, Mr. Johnson stated the added work can be completed through a change order.

Director Oygar motioned to approve staff’s recommendation, including Saturnino Rd. After a second by Vice President Stuart, the motion carried unanimously (Director Ewing absent).
President Cioffi asked Outreach & Conservation Manager Metzger to present staff’s request for Board authorization to enter new conservation stage within Ordinance No. 65.

Mrs. Metzger announced that Governor Brown recently ended the drought emergency. Given the end of emergency restrictions, staff is asking the Board evaluate its conservation stage as described in Ordinance No. 65. The Agency is currently in stage four. Under the existing language, stages two through five must be prompted by restrictions from the SWRCB or other regulatory body, or by threatened or existing water supply shortage that could prevent the Agency from meeting the water demands of its customers.

Continuing her report, Mrs. Metzger explained the following restriction changes with stage one compared to stage four: No longer restrict: Day of week watering, Time of day watering, Watering right-of-ways (parkways), Restaurants providing water upon request only, Commercial car washes to use recycled water, Use of decorative water features (unless recirculating) and Drip irrigation/micro-irrigation on newly built homes. The following restrictions will still be in place: Runoff, Washing hardscape or exterior surfaces, except to protect public health, Unreasonable use/water waste, Irrigating within 48 hours of rain, and Washing vehicles without shutoff nozzles. If the Board moves from Stage Four, staff will notify customers in a newspaper pursuant to the ordinance and broadly notify customers. Staff recommends moving to Stage One.

Director Oygar moved for approval of staff’s recommendation. Vice President Stuart seconded the motion, which passed unanimously (Director Ewing absent).

President Cioffi asked General Manager Krause to present staff’s request for authorization for Board attendance.

Mr. Krause stated there is interest in attending the CSDA’s legislative conference in May in Sacramento. He noted that DWA recently became a member of CSDA and although the conference is the same day as a Board meeting, it would be advantageous for a Board Member to attend at least part of the conference to become active in the organization. He asked whether the Board would like to add the CSDA’s events to the approved list for the Board’s future attendance. He explained there is also interest in attending an upcoming NWRA Groundwater Committee meeting in Dallas next week.

President Cioffi stated he currently serves on the NWRA Groundwater Committee and plans to attend next week’s meeting. He noted there is also a request from ACWA for participation in its Groundwater Committee; further discussion will be held when Director Ewing returns.
Mr. Krause stated it is staff’s recommendation for authorization for attendance at CSDA’s legislative days event and the NWRA Groundwater Committee meeting in Dallas next week. Such attendance will be deemed in service to the Board.

Director Oygar made a motion to approve staff’s recommendation. Vice President Stuart seconded the motion, which carried unanimously (Director Ewing absent).

17799. President Cioffi asked General Manager Krause to report on the March water production figures.

Mr. Krause reported that the Agency and its customers achieved a 23.6 percent reduction in potable water production during March 2017 compared to March 2013. He noted the cumulative savings June 2015 through March 2017 is 24 percent. He also noted the amount of fresh water outflow to the ocean was 8,862,700 acre feet for March.

17800. President Cioffi called upon General Manager Krause to discuss the 2017/2018 Groundwater Replenishment Assessments Draft Engineer’s reports.

Mr. Krause introduced David Scriven, representing Krieger & Stewart, who has prepared the report. He noted today’s report is being presented for discussion purposes.

Mr. Krause stated the current estimated effective Table A assessment rate has been calculated to be $158 per acre-foot. The proposed replenishment assessment rate for 2017/2018 for Whitewater, Mission Creek and Garnet Hill Subbasins is $120 per acre-foot The proposed rate is intended to stabilize water rates. The Agency will continue to rely on using its State Water Project reserve account to make up the difference and gradually increase the assessment over a short number of years so it will ultimately cover each year’s charges for imported water with no further shortfall accrual.

Continuing his report, Mr. Krause stated CVWD’s proposed replenishment assessment rate for the Whitewater River Subbasin is $189.28 and its proposed rate for the Mission Creek River Subbasin is $135.52. He noted that last year, CVWD approved a lower rate than it proposed.

Mr. Scriven then provided a brief overview of the draft engineer’s report.

Mr. Krause explained that the proposed rates fit with the rate study. A final report will be presented at a public meeting on May 16 and a determination made that funds should be raised by a replenishment
assessment for Board acceptance. A public hearing will be held on June 6.

17801. President Cioffi asked Outreach & Conservation Manager Metzger to discuss her conservation presentation.

Mrs. Metzger provided a PowerPoint presentation which included information on Governor Brown’s Executive Order, water conservation efforts, water use targets and water contingency plans,

17802. At 10:00 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), Mission Springs Water District vs. Desert Water Agency; (D) Real Property Negotiators, pursuant to Government Code Section 54956.8, Property-0.504 acre west of Indian Canyon Drive between Racquet Club Rd. and Via Olivera, Agency Negotiators: Mark S. Krause, General Manager and Steven L. Johnson, Assistant General Manager, Negotiating Parties: DWA and Ayres Advisors, Under Negotiation: Price and terms; and (E) Real Property Negotiators, pursuant to Government Code Section 54956.8, Conveyance of Property-APN 687-030-019 to City of Cathedral City and Conveyance of Easement-APN 677-420-021 to City of Cathedral City, Agency Negotiators: Mark S. Krause, General Manager and Steven L. Johnson, Assistant General Manager, Negotiating Parties: DWA and City of Cathedral City, Under Negotiation: Terms.

17803. At 11:05 a.m., President Cioffi reconvened the meeting into open session and announced there was no reportable action.

17804. In the absence of any further business, President Cioffi adjourned the meeting at 11:06 a.m.

_________________________________
James Cioffi, President

ATTEST:

_________________________________
Kristin Bloomer, Secretary-Treasurer
On March 29th DWA Operations and Construction Department personnel participated in a Confined Space Rescue, joint training exercise with firefighters from the Palm Springs Fire Department. The exercise was coordinated by the Agency’s Safety Officer, Eddie Gonzalez and PSFD’s Battalion Chief, David Rees.

The two rescue teams met at the 12 million gallon reservoir on Chino Canyon road in Palm Springs to conduct two rescue scenario simulations. This gave the opportunity to preplan and execute confined space rescues with the Agency and Fire Department personnel in a semi – controlled environment.

The cooperation and collaboration of the rescue teams and other support personnel yielded a positive outcome of learning from each other, familiarization of equipment and techniques, as well as developing a good working relationship between our rescue teams and our city’s first responders.

The rescues were conducted from a vault that descended over 25 feet. This was the first time the Fire Department had ever performed a confined space rescue training in a real vault, outside of their training center, and deeper than 10 feet.

DWA will continue to train on a quarterly basis with Fire Department to further develop the skills of both rescue teams. We’re planning to return to the 12 million gallon reservoir in the Fall when it’s empty to conduct another training session where the teams will perform rescues from a 40 foot descent.

Photos from the training are attached on the following page.
Windstorm Cleanup and Preparation

On March 30, DWA suffered damage to several trees and a section of fence at the Operations Center due to a windstorm which severely impacted most of the Coachella Valley.

The Agency lost an adult Palo Verde which was broken in half. The tree had to be completely removed and is being replaced. Another Palo Verde suffered a broken branch.

Many other trees suffered damage to their branches, and some were uprooted and overturned. Most were able to be salvaged but 2 had to be removed.

The Agency is in the process of cleaning up debris and repairing damage caused to a portion of fence line. We are also taking preemptive action by trimming dead limbs, and weak branches from 8 trees at the Operations Center, and the Reclamation Plant.
Emergency Evacuation Drill 2017

On April 21 DWA conducted its annual Emergency Evacuation Drill. The drill began promptly at 10:00 a.m. with an announcement made over the P.A. system by the switchboard operator. Employees followed directions and evacuated the building calmly and carefully, and assembled at the designated evacuation areas.

Employees assembled for a personnel accountability check by their supervisors and management staff at the primary evacuation area.

Department Heads and Supervisors contacted all field personnel by phone to inform them that the drill was in action, and not to return to the operations center until given the “all clear”.

DWA coordinated with Palm Springs Fire Department, which sent Battalion Chief Jason Loya, and four other Technicians and EMTs, and Engine #2 to participate in the drill. Chief Loya was given a copy of our site plan, and our evacuation procedures which included a pictogram showing how all Agency employees would form in the evacuation area. The pictogram also gives specific locations for where the triage area could be set up. The “All Clear” was given and employees returned to work.

After the drill Chief Loya and his team were given a tour of facility, and access to the roof of the Operations Center by the Safety Officer. Chief Loya and his technicians began to formulate a plan on how they would attack a large fire at the Operations Center. They made an assessment of potential hazards and specifically noted the large, unprotected square hole in the roof that is the opening for the atrium. They said that when dealing with structural fires it’s common practice to attack from the roof to ventilate and improve interior conditions. The large unprotected hole poses a fall hazard especially under low – light conditions. Chief Loya recommended that the Agency apply some form of fall protection to this area as soon as possible.
Active Shooter/Attack Evacuation Drill

On April 25, DWA conducted its annual Active Shooter/Attack evacuation drill. The drill began promptly at 09:00 a.m. with an announcement made over the P.A. system by the switchboard operator.

Employees evacuated the building calmly and carefully and walked to the reclamation plant where they assembled for a personnel accountability check by their Supervisors and Management. Department Heads and Supervisors contacted all field personnel by phone to inform them that the drill was in action, and not to return to the Operations Center until given the “all clear”.

Sergeant Kyle Stjerne, [stern], from the Palm Springs Police Department was on site to observe and evaluate our drill. Sergeant Stjerne is a S.W.A.T. operator and team training leader for the local, multi-departmental S.W.A.T. team that serves the many municipalities of the Coachella Valley.

Throughout the evacuation drill he stated that what the Agency is doing in reference to training for such an attack is light years ahead of 95% of businesses, schools, industries, and other similar utility companies in our surrounding area. He stated that our level of preparation is on par with what is currently the industry standard and that we should continue to upgrade our training with the evolution of what will become common practice for surviving such an attack.

Sergeant Stjerne is interested in coordinating with DWA to conduct an after – hours S.W.A.T. team training at the Operations Center. This would allow the team to train at our facility and develop a plan of entry specifically tailored for our Operations Center. It would expedite a neutralization of threat, and performing a rescue should the need ever arise.
As a function of routine maintenance of Reclaimed Water Filters 1, 2, and 3 at the Recycled Water Facility, the Agency entered into a contract with ERS Industrial Services to remove and replace the mixed media in the filters and re-coat the interior of the filters. The interior of the filters was coated with an Elastomeric Polyurethane coating at a thickness of 70-80 mils. This product has a design life of 50 years (a traditional coating has a design life of 10 years) and was bid at $12,000 less than the traditional coating. The work began in early January and was completed on April 21, 2017.
As a function of routine maintenance of Effluent Reservoir #1, at the Recycled Water Facility, the Agency entered into a contract with Paso Robles Tank, Inc in 2013 to rehabilitate and re-coat the reservoir. At the 2 year anniversary inspection, deficiencies in the coating were observed; after independent inspection the cause of the deficiencies was inconclusive. The Agency and the Contractor agreed to have the contractor perform remedial work on the deficient areas at a reduced cost of $38,000 to the Agency. The roof was re-coated with a thicker application of the original coating. The remedial work began in December of 2016 and was completed on April 13, 2017.
Well 25 Fence Damage

On April 25, Facilities & Safety Officer Gonzalez was informed of damage to the fence at Well 25, located on the corner of 34th Avenue and Marguerite St.

Upon further inspection it was discovered that a vehicle had crashed through the fence on the North West corner of the property, damaging a 15 foot section of the fence line.

The Facilities and Safety Officer contacted a local fence construction contractor for a proposal on the repair. The fence will be scheduled for repair as soon as the proposal is approved.
<table>
<thead>
<tr>
<th>STREET NAME</th>
<th>QUARTER SECTION</th>
<th>NUMBER OF LEAKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINDA VISTA RD</td>
<td>4411NE</td>
<td>10</td>
</tr>
<tr>
<td>SATURMINO DR</td>
<td>4413NW</td>
<td>5</td>
</tr>
<tr>
<td>CAMINO NORTE</td>
<td>4410NW</td>
<td>4</td>
</tr>
<tr>
<td>RACQUET CLUB RD</td>
<td>4402NW</td>
<td>3</td>
</tr>
<tr>
<td>CHINO DR</td>
<td>4410SE</td>
<td>3</td>
</tr>
<tr>
<td>S PALM CANYON DR</td>
<td>4423SW</td>
<td>3</td>
</tr>
<tr>
<td>LINDSEY RD</td>
<td>4402NW</td>
<td>3</td>
</tr>
<tr>
<td>CHUCKWALLA RD</td>
<td>4411NW</td>
<td>2</td>
</tr>
<tr>
<td>AVENTIDA PALOS VERDES</td>
<td>4411SW</td>
<td>2</td>
</tr>
<tr>
<td>CHIA RD</td>
<td>4411NW</td>
<td>2</td>
</tr>
<tr>
<td>AIRLANE DR</td>
<td>4413NE</td>
<td>2</td>
</tr>
<tr>
<td>CANYON PL</td>
<td>4410SE</td>
<td>2</td>
</tr>
<tr>
<td>MICHELLE RD</td>
<td>4413NW</td>
<td>2</td>
</tr>
<tr>
<td>SUNNY DUNES RD</td>
<td>4423NW</td>
<td>1</td>
</tr>
<tr>
<td>PASEO EL MIRADOR</td>
<td>4411NW</td>
<td>1</td>
</tr>
<tr>
<td>VIA MONTE VISTA</td>
<td>4410NE</td>
<td>1</td>
</tr>
<tr>
<td>INDIAN CANYON DR</td>
<td>4402NW</td>
<td>1</td>
</tr>
<tr>
<td>COTTONWOOD RD</td>
<td>4411NW</td>
<td>1</td>
</tr>
<tr>
<td>CALLE PALO FIERRO</td>
<td>4423NW</td>
<td>1</td>
</tr>
<tr>
<td>BROADMOOR DR</td>
<td>4529NW</td>
<td>1</td>
</tr>
<tr>
<td>CALLE PALO FIERRO</td>
<td>4423SW</td>
<td>1</td>
</tr>
<tr>
<td>ARENAS RD</td>
<td>4413SW</td>
<td>1</td>
</tr>
<tr>
<td>CALLE MARCUS</td>
<td>4411NE</td>
<td>1</td>
</tr>
<tr>
<td>PLAIMOR AVE</td>
<td>4413NE</td>
<td>1</td>
</tr>
<tr>
<td>AVENTIDA EVELITA</td>
<td>4519NW</td>
<td>1</td>
</tr>
<tr>
<td>LIVMOR AVE</td>
<td>4413NE</td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL LEAKS IN SYSTEM:**

56

* Streets highlighted in blue are being replaced as part of the 2016/2017 Replacement Pipeline Project

* Streets highlighted in green are included as part of the proposed list of streets for the 2017/2018 Replacement Pipeline Project
### General Manager’s Meetings and Activities

**Meetings:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Meeting</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>04/18/2017</td>
<td>DWA Board Meeting</td>
<td>DWA</td>
</tr>
<tr>
<td>04/18/2017</td>
<td>SWC Water Operations Meeting</td>
<td>Conf. Call</td>
</tr>
<tr>
<td>04/18/2017</td>
<td>BLM - Whitewater River Recharge Basins – BLM Permit</td>
<td>BLM CPS Office</td>
</tr>
<tr>
<td>04/19/2017</td>
<td>SWC Delta Committee Meeting</td>
<td>Sacramento</td>
</tr>
<tr>
<td>04/19/2017</td>
<td>SWC Policy Dinner Meeting</td>
<td>Sacramento</td>
</tr>
<tr>
<td>04/20/2017</td>
<td>SWC Monthly Board Meeting</td>
<td>Sacramento</td>
</tr>
<tr>
<td>04/20/2017</td>
<td>State and Federal Contractors Water Authority Board Meeting</td>
<td>Sacramento</td>
</tr>
<tr>
<td>04/20/2017</td>
<td>Sites Reservoir – Provost &amp; Prichard Meeting</td>
<td>Sacramento</td>
</tr>
<tr>
<td>04/21/2017</td>
<td>Sites Reservoir Committee Monthly Meeting</td>
<td>Maxwell</td>
</tr>
<tr>
<td>04/24/2017</td>
<td>Staff Meeting/Information Sys. Meeting/Snow Creek Security Mtg.</td>
<td>DWA</td>
</tr>
<tr>
<td>04/24/2017</td>
<td>Multi Agency Rate &amp; Water Usage Research Meeting</td>
<td>Conf. Call</td>
</tr>
<tr>
<td>04/24/2017</td>
<td>DWA/CVWD/MWD Supplemental Water Coordination Agreement</td>
<td>Conf. Call</td>
</tr>
<tr>
<td>04/26/2017</td>
<td>DWA Finance Committee Meeting</td>
<td>DWA</td>
</tr>
<tr>
<td>04/26/2017</td>
<td>Responses to Public Comment on Alternative GSP’s</td>
<td>Conf. Call</td>
</tr>
<tr>
<td>04/26/2017</td>
<td>DWA Safety Meeting</td>
<td>DWA</td>
</tr>
<tr>
<td>04/27/2017</td>
<td>BLM – Whitewater River Recharge Basins – BLM Permit</td>
<td>Conf. Call</td>
</tr>
<tr>
<td>04/28/2017</td>
<td>SGMA Tribal Stakeholder Meeting with ACBCI</td>
<td>CVWD</td>
</tr>
<tr>
<td>05/01/2017</td>
<td>Staff Meeting/Information Sys. Meeting/Snow Creek Security Mtg.</td>
<td>DWA</td>
</tr>
<tr>
<td>05/01/2017</td>
<td>SGMA – Indio Subbasin GSA Coordination Meeting</td>
<td>IWA</td>
</tr>
</tbody>
</table>

**Activities:**

1. Sites Reservoir Agreement
2. E-Billing – implementing customer payment history capabilities
3. Outreach Talking Points – KESQ
4. Snow Creek Hydro SCE contract extension - ongoing
5. Whitewater Hydro – Developing new administration and operating procedures
6. State and Federal Contractors Water Authority and Delta Specific Project Committee (Standing)
7. Clifton Court SWP Damage
8. MSWD Second Amended Petition– Ongoing
9. ACBCI Section 14 Facilities & Easements
10. New Mesquite Property Fencing
11. Chain of Title
12. Lake Oroville Spillway Damage
13. Replacement Pipelines 2016-2017
14. Lake Oroville NMFS Requirements
15. DWA/CVWD/MWD Operations Coordination/Article 21/Pool A/Pool B/Yuba Water
16. DWA/CVWD/MWD Agreements Update
17. Recycled Water Effluent Reservoir Coating Failures
18. SGMA Alternative Plans and Bridge Documents/Public Comments
19. SWP 2017 Water Supply
20. SGMA San Gorgonio Pass Sub-Basin MOU
21. ACBCI Law Suits
22. Lake Perris Dam Remediation
23. Drought Pricing Study
Activities
(cont'd):

24) Section 14 Pipeline Easements
25) DOI Regulation
26) DWA Fiscal Year 2017-2018 Budget
27) A.B. 1562
28) Cathedral City Monitoring Well Site Abandonment
29) California Legislation Review
30) FOIA
31) Whitewater Hydro Operations Coordination with Recharge Basin O&M
32) Adjusting Drought Requirements
33) Multi-Agency Rate Study
34) SGMA Tribal Stakeholder Meetings
35) 2016/2017 Engineer’s Report on Groundwater Replenishment and Assessment Program
36) Whitewater Spreading Basins – BLM Permits
Minutes
Executive Committee Meeting
April 25, 2017

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

1. Discussion Items
   A. Review Agenda for May 2, 2017 Regular Board Meeting
      The proposed agenda for the May 2, 2017 regular board meeting was reviewed.
      It was agreed there would be additional agreements added for Board approval.

2. Other
   A. A request was made to investigate the participation of DWA in a MWD Colorado River Aqueduct tour.

3. Adjourn
Minutes
Finance Committee Meeting
April 26, 2017

Directors Present:  Joseph K. Stuart, Kristin Bloomer

Staff Present:  Mark Krause, Martin Krieger, Steve Johnson

Discussion Items

1. Proposed 2017/2018 Operating Fund Budget
   The Committee reviewed estimated water sales & reclamation sales revenue; rate adjustments, capital budget and payroll budget. There was a brief discussion on the Turf Buy Back program.

2. Proposed 2017/2018 General Fund Budget
   The Committee reviewed the groundwater replenishment rate adjustment and revenue; property tax assessment and revenue estimates; State Water Project charges, Sites Reservoir Project and SWP Reserves. The proposed Capital budget was also reviewed.

3. Proposed 2017/2018 Wastewater Fund Budget
   The Committee reviewed the monthly sewer fixed charge adjustment and the proposed Capital budget.

4. Other - None

Adjourn
RE: WATER USE VIOLATION – CIVIL PENALTY HEARINGS

Starting in March, 2016, staff began issuing water use violations under the new ordinance; to date, more than 475 violations have been issued. Recipients of the violations have 7 days to request a hearing in writing. One violation will be reviewed at 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 reviewed 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:

Initial Notifications Upon Restrictions Going into Effect

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
11. Rates brochure given to all new customers
1. Hosea E Brown, 190 Sunrise Way, Palm Springs

   a. On Thursday, March 2 at 7:00 a.m. a Desert Water Agency representative observed water use violations at said address and reported them.
      i. Runoff
      ii. Irrigating on a restricted day

   b. Fine amount $200
      i. Commercial building
      ii. Second violation (first violation was for time and runoff)

   c. Reason for petition
      i. No date and time stamp on photos
      ii. Runoff from adjacent property

   d. Other information
      i. Last penalty photos showed excessive runoff (October 2016)
      ii. No other landscape water meters in the vicinity
April 18, 2017

Ashley Metzger
P.O. Box 1710
Palm Springs, CA 92263-1710

RE: Fine on Account # [Redacted]: 190 Sunrise Way N

Dear Ms. Metzger:

This letter serves as our appeal to the fine notice.

Our gardener has ensured us that our outdoor irrigation system only runs on the days that are restricted to. It is hard to pay a $200.00 fine based on a picture without a date and time stamped on it.

As far as runoffs are concerned, water was flowing from the adjacent property.

Sincerely,

[Signature]

Karren Serna
Bookkeeper
760.320.8964
March 3, 2017

Hosea E Brown
% Simba’s Restaurant
PO Box 1503
Palm Springs, CA 92263

RE: FINE ON ACCOUNT# __________; 190 Sunrise Way N

Dear Valued Customer:

Due to a water use violation observed and documented by a Desert Water Agency representative on Thursday, March 2, 2017 at 7:00 am, 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 $200.00 will be added onto your water bill.

You were cited for:

- **Outdoor irrigation shall be restricted to Mondays, Wednesdays, & 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
Water Usage During Restriction

Request ID# 327088

Created: 03/02/2017 07:00 AM

Taken On: Apple iPhone 6

Location: 190 N Sunrise Way, Pal...

Description:

Watering on Thursday and excessive run off

Date Updated: 03/03/2017 03:53 PM

Status: InProcess

Comments:

The Desert Water Agency - 03/02/2017 07:01 AM: We have received your waste report, and we are now following up with the property owner. If this is their first report, we will send them a courtesy letter to let them know about the issue, and we will call them if we have a phone number on file for their account. If this is a
As a local governmental entity, Desert Water Agency is required by law to adopt guidelines to implement the California Environmental Quality Act. The Agency’s CEQA Guidelines have been prepared by the Agency’s legal counsel, Best Best & Krieger. As the law changes, the Agency’s Guidelines also must be revised to maintain consistency.

Attached is proposed Resolution No. 1157 that would adopt revised CEQA Guidelines to conform to changes in the law that have occurred since the date of the last revision. The changes are detailed in a memo prepared by Best Best & Krieger, also attached. It is recommended that the Board adopt Resolution No. 1157 approving the 2017 Update to the Local California Environmental Quality Act (CEQA) Guidelines.
RESOLUTION NO. 1157

A RESOLUTION OF THE DESERT WATER AGENCY
AMENDING AND ADOPTING LOCAL GUIDELINES FOR
IMPLEMENTING THE CALIFORNIA ENVIRONMENTAL
QUALITY ACT (PUBLIC RESOURCES CODE §§ 21000 ET SEQ.)

WHEREAS, the California Legislature has amended the California Environmental Quality Act ("CEQA") (Pub. Resources Code §§ 21000 et seq.) and the State CEQA Guidelines (Cal. Code Regs, tit. 14, §§ 15000 et seq.), and the California courts have interpreted specific provisions of CEQA; and

WHEREAS, Section 21082 of CEQA requires all public agencies to adopt objectives, criteria and procedures for the evaluation of public and private projects undertaken or approved by such public agencies, and the preparation, if required, of environmental impact reports and negative declarations in connection with that evaluation; and

WHEREAS, the Desert Water Agency ("Agency") must revise its local guidelines for implementing CEQA to make them consistent with the current provisions and interpretations of CEQA and the State CEQA Guidelines.

NOW, THEREFORE, the Desert Water Agency hereby resolves as follows:

SECTION 1. The Agency hereby adopts the "Local Guidelines for Implementing the California Environmental Quality Act (2017 Revision)," a copy of which is on file at the offices of the Agency and is available for inspection by the public.

SECTION 2. All prior actions of the Agency enacting earlier guidelines are hereby repealed.

ADOPTED this 2nd day of May, 2017.

_______________________________
James Cioffi, President
Board of Directors

ATTEST:

_______________________________
Kristin Bloomer, Secretary-Treasurer
Board of Directors
A copy of the Desert Water Agency 2017 CEQA Guidelines is available for review upon request.
STAFF REPORT
TO
DEsert WATER AGENCY
BOARD OF DIRECTORS

MAY 2, 2017

RE: APPROVAL OF JULY 1, 2017 COST-OF-LIVING SALARY INCREASE FOR DWA EMPLOYEES AND GENERAL MANAGER

The 2015-2018 Memorandum of Understanding between the Desert Water Agency (DWA) and the Desert Water Agency Employees’ Association (DWAEA) calls for a cost of living salary increase effective July 1st of each year (see Attachment #1). The increase is equal to the percentage change for the year ending each March, with the percentage derived from the Bureau of Labor Statistics “Consumer Price Indexes – Pacific Cities and U.S. City Average”, “Urban Wage Earners and Clerical Workers” for Los Angeles-Riverside-Orange County Index. For March 2017, the CPI percentage was 2.4% (see Attachment #2).

The General Manager has an Employment Agreement that includes a cost-of-living adjustment to the base salary of the same percentage as provided to all Agency employees (see Attachment #3). Upon approval by the Board, the General Manager’s Employment Agreement will be amended to reflect a 2.4% base salary increase (see Attachment #4).

Staff has updated the Desert Water Agency’s Monthly Salary Schedule to reflect a 2.4% increase for all salary ranges effective July 1, 2017 (see Attachment #5). The Desert Water Agency January 1, 2017 Position Classification Schedule remains in effect as only the salary in the range for each position will change.

Fiscal Impact
If the Board approves the 2.4% Cost of Living Adjustment, the total fiscal impact is an increase of $49,001 over the prior year budget.

Staff is requesting the Board of Directors:
1. Approve a 2.4% Cost of Living Increase to DWA Employees and the General Manager with an effective date of July 1, 2017.
2. Approve the July 1, 2017 DWA Monthly Salary Schedule reflecting a 2.4% increase.
3. Approve a Third Amendment to the General Manager’s Employment Agreement to reflect a 2.4% cost-of-living increase to the base salary.

Attachments
Attachment #1 – 2015-2018 DWAEA Memorandum of Understanding
Attachment #2 – March 2017 Consumer Price Index
Attachment #3 – General Manager’s Employment Agreement
Attachment #4 – Third Amendment to General Manager Employment Agreement
Attachment #5 – 07/01/17 DWA Monthly Salary Schedule
June 24, 2015

Desert Water Agency Employees’ Association
Attn: Kory Knox – Chairman/DWA EA
1200 South Gene Autry Trail
Palm Springs, CA 92264

RE: Employee Salaries and Fringe Benefits through June 30, 2018

Ladies and Gentlemen of the DWA Employees’ Association:

Pursuant to the meet-and-confer process under state law, the following salary and fringe benefit package was negotiated between the Desert Water Agency Employees’ Association and the General Manager. This negotiated package extends to June 30, 2018, and I have received your written notice that the proposal was initially accepted by the DWA Employees’ Association by a majority vote on May 12, 2015, and I was verbally apprised by Chairman Kory Knox that the final negotiated terms of the MOU (as outlined below) were subsequently approved by a majority vote of the DWA EA on June 23, 2015.

This proposal has been approved by the Desert Water Agency Board of Directors at their regular meeting on June 16, 2015, and has a commencement date of July 1, 2015.

The specific terms negotiated and agreed upon are as follows:

1. The negotiated package would include no increases in fringe benefit costs paid by employees, with the exception of the following:

   a. Employee contributions to CalPERS Employer Rate if cost to maintain 2.5% @ 55 benefit factor increases. When employees negotiated an increase in the CalPERS Retirement Benefit Factor from 2% at 55 to 2.5% at 55, it was mutually agreed that any subsequent increase in the “Employer” Rate would be picked up by the employee, resulting in no additional cost to the Agency.

Each year, CalPERS conducts an Actuarial which determines the Employer Rate for the next fiscal year. Currently (fiscal year 2014-2015) the Agency pays a CalPERS employer rate of 21.35%. For fiscal year 2015/2016 the Employer Rate is 22.513% (an increase of 1.163%) and CalPERS has projected a rate of 23.513% for fiscal year 2017/2018.
Effective July 1, 2015, the Agency will pay the 1.163% increase in the Employer Rate. CalPERS Employee Rate for those hired before January 1, 2013 remains at 8%.

Employees hired on or after January 1, 2013 have a CalPERS retirement benefit factor of 2% @ 62. The Employer and the Employee share in the cost of funding this benefit. For fiscal year 2015/16 the Employer Rate is 6.73% and the Employee Rate is 6.5%.

b. If during the term of this Memorandum of Understanding the health benefit premiums become impacted by the Affordable Care Act, employees and the Agency agree to reopen discussions regarding Agency contributions for health insurance premiums during annual health benefit open enrollment periods.

2. Commencing July 1, 2015, each Agency employee will receive a cost of living increase equal to the percent change for the year ending March 2015, with the percentage derived from the Bureau of Labor Statistics “Consumer Price Indexes - Pacific Cities and U.S. City Average”, “Urban Wage Earners and Clerical Workers” for Los Angeles-Riverside-Orange County Index. The minimum will not be lower than 0% (in the event the actual index goes below 0%); the maximum will be 5%.

3. Commencing July 1, 2016, each Agency employee will receive a cost of living increase equal to the percent change for the year ending March 2016, with the percentage derived from the Bureau of Labor Statistics “Consumer Price Indexes - Pacific Cities and U.S. City Average”, “Urban Wage Earners and Clerical Workers” for Los Angeles-Riverside-Orange County Index. The minimum will not be lower than 0% (in the event the actual index goes below 0%); the maximum will be 5%.

4. Commencing July 1, 2017, each Agency employee will receive a cost of living increase equal to the percent change for the year ending March 2017, with the percentage derived from the Bureau of Labor Statistics “Consumer Price Indexes - Pacific Cities and U.S. City Average”, “Urban Wage Earners and Clerical Workers” for Los Angeles-Riverside-Orange County Index. The minimum will not be lower than 0% (in the event the actual index goes below 0%); the maximum will be 5%.

5. Effective July 1, 2015, the Agency monthly contribution to deferred compensation account for employees hired after May 1, 2007 is increased to $120 per month.

Effective July 1, 2016, the Agency monthly contribution to deferred compensation account for employees hired after May 1, 2007 is increased to $125 per month.
Effective July 1, 2017, the Agency monthly contribution to deferred compensation account for employees hired after May 1, 2007 is increased to $130 per month.

6. Effective July 1, 2015, the Agency will reimburse employees who are required to wear safety toed boots up to $300 each fiscal year for boots meeting the safety and quality requirements established by the General Manager.

7. A salary survey for benchmarked job classifications will be performed toward the end of 2016 and, with Board approval of any changes, have an implementation date of January 1, 2017.

8. A benefit survey will be performed during the month of March 2018.

9. Commencing in April 2018, a new Salary and Fringe Benefits Memorandum of Understanding will be negotiated between the DWA Employees' Association and the General Manager / Chief Engineer, and will be implemented (with the Board's approval) on July 1, 2018.

If you agree that this letter correctly memorializes our understanding, please sign below and return one copy to me at your earliest convenience. Another copy of this letter agreement has been enclosed for your records.

Sincerely,

DESERt WATER AGENCY

David K. Luker
General Manager

We agree to the above.

DESERt WATER AGENCY EMPLOYEES ASSOCIATION

Date

Chairman – Kory Knox

Date

Secretary – Carol Ann Perez

Date

Treasurer – Louvina Silva
### CONSUMER PRICE INDEXES PACIFIC CITIES AND U. S. CITY AVERAGE

**March 2017**

**ALL ITEMS INDEXES**
*(1967-84=100 unless otherwise noted)*

#### MONTHLY DATA

<table>
<thead>
<tr>
<th></th>
<th>All Urban Consumers (CPI-U)</th>
<th>Urban Wage Earners and Clerical Workers (CPI-W)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year ending</td>
<td>1 Month ending</td>
</tr>
<tr>
<td>U. S. City Average</td>
<td>238.132</td>
<td>243.603</td>
</tr>
<tr>
<td>(1967=100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Los Angeles-Riverside-Orange Co</td>
<td>247.073</td>
<td>253.815</td>
</tr>
<tr>
<td>(1967=100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West</td>
<td>732.326</td>
<td>749.881</td>
</tr>
<tr>
<td>(Dec. 1977 = 100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West – A</td>
<td>396.681</td>
<td>407.752</td>
</tr>
<tr>
<td>(Dec. 1977 = 100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West – B/C** (Dec 1996=100)</td>
<td>410.625</td>
<td>422.851</td>
</tr>
</tbody>
</table>

#### BI-MONTHLY DATA

<table>
<thead>
<tr>
<th></th>
<th>All Urban Consumers (CPI-U)</th>
<th>Urban Wage Earners and Clerical Workers (CPI-W)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year ending</td>
<td>2 Months ending</td>
</tr>
<tr>
<td>San Francisco-Oakland-San Jose</td>
<td>262.600</td>
<td>269.483</td>
</tr>
<tr>
<td>(1967=100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seattle-Tacoma-Bremerton</td>
<td>250.942</td>
<td>256.921</td>
</tr>
<tr>
<td>(1967=100)</td>
<td>764.970</td>
<td>782.889</td>
</tr>
</tbody>
</table>

* A = 1,500,000 population and over
* B/C = less than 1,500,000 population
* Dash (-) = Not Available.

Release date April 14, 2017. The next monthly and bi-monthly releases are scheduled for May 12, 2017.

Please note: Customers can receive hotline information by calling the BLS West Region Information Office: (415) 625-2270.

This card is available on the day of release by electronic distribution. Just go to www.bls.gov/bls/last.htm and sign up for the free on-line delivery service. For questions, please contact us at BLSInfoSF@BLS.GOV or (415) 625-2270.
This Second Amendment to Employment Agreement (this "Second Amendment") between the DESERT WATER AGENCY (the "Agency") and MARK S. KRAUSE ("General Manager – Chief Engineer") is entered into this 7th day of February 2017.

Except as modified in this Second Amendment and the preceding First Amendment, the Employment Agreement originally dated December 2015 ("Agreement") between the Agency and the General Manager – Chief Engineer shall remain in full force and effect.

The parties to this Second Amendment agree to the following changes:

Section 4.1 entitled “Salary and Expenses” is hereby amended to reflect a four percent (4%) salary increase and a four percent (4%) discretionary bonus:

"Section 4. Salary and Expenses.

4.1 Board of Directors agrees to pay the GM-CE for his services rendered a base salary of Twenty Thousand, Five Hundred and Four Dollars and Sixty-Four Cents ($20,504.64), effective retroactively to January 30, 2017 per month in installments at the same time as other employees of the Agency are paid. The base salary will be adjusted annually by the same percentage adjustment provided to all Agency employees for changes in the cost of living, if any.

Further, as of the date of this Second Amendment to Employment Agreement, the Board of Directors agrees to pay the GM-CE a one-time bonus of Nine Thousand, Four Hundred and Sixty Three Dollars and Sixty Eight Cents ($9,463.68), representative of four percent (4%) of the GM-CE’s prior 2016 annual salary.

In addition, the Board shall have the right to grant merit increases as the Board deems appropriate, in its discretion. The GM-CE will be eligible for a discretionary annual incentive award not to exceed ten percent (10%) of his total annual base salary based on the results of his annual performance evaluation. The incentive may be based, in part, on the accomplishment of specific goals set by the Board of Directors that are achieved by the GM-CE. Any performance incentive awarded under this section shall be in a lump sum payment, subject to all legally required wage and employment deductions. Notwithstanding the above, the issuance of any incentive awards is at the sole discretion of the Board of Directors. Further any performance pay awarded under this Section shall not become a part of the GM-CE’s established base salary going forward.

The Agency and the General Manager – Chief Engineer have duly executed this Second Amendment as of the date first written above.

DEsert WATER AGENCY

By: [Signature]

President, Board of Directors

MARK S. KRAUSE

By: [Signature]

Attachment #3
DESER T WATER AGENCY
THIRD AMENDMENT TO EMPLOYMENT AGREEMENT

This Third Amendment to Employment Agreement (this “Third Amendment”) between the DESSERT WATER AGENCY (the “Agency”) and MARK S. KRAUSE (“General Manager – Chief Engineer”) is entered into this 2nd day of May 2017.

Except as modified in this Third Amendment and the preceding First Amendment, Second Amendment, and the Employment Agreement originally dated December 2015 (“Agreement”) between the Agency and the General Manager – Chief Engineer shall remain in full force and effect.

The parties to this Third Amendment agree to the following changes:

Section 4.1 entitled “Salary and Expenses” is hereby amended to reflect a 2.4% cost of living salary adjustment:

“Section 4. Salary and Expenses.

4.1 Board of Directors agrees to pay the GM-CE for his services rendered a base salary of Twenty Thousand, Nine Hundred and Ninety-Six Dollars and Seventy-Three Cents ($20,996.73), effective July 1, 2017 per month in installments at the same time as other employees of the Agency are paid. The base salary will be adjusted annually by the same percentage adjustment provided to all Agency employees for changes in the cost of living, if any.

In addition, the Board shall have the right to grant merit increases as the Board deems appropriate, in its discretion. The GM-CE will be eligible for a discretionary annual incentive award not to exceed ten percent (10%) of his total annual base salary based on the results of his annual performance evaluation. The incentive may be based, in part, on the accomplishment of specific goals set by the Board of Directors that are achieved by the GM-CE. Any performance incentive awarded under this section shall be in a lump sum payment, subject to all legally required wage and employment deductions. Notwithstanding the above, the issuance of any incentive awards is at the sole discretion of the Board of Directors. Further any performance pay awarded under this Section shall not become a part of the GM-CE’s established base salary going forward.

The Agency and the General Manager – Chief Engineer have duly executed this Third Amendment as of the date first written above.

DESSERT WATER AGENCY

By: __________________________
President, Board of Directors

MARK S. KRAUSE

By: __________________________
<table>
<thead>
<tr>
<th>RANGE</th>
<th>STEP 1</th>
<th>STEP 2</th>
<th>STEP 3</th>
<th>STEP 4</th>
<th>STEP 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>2.299</td>
<td>2.415</td>
<td>2.536</td>
<td>2.661</td>
<td>2.794</td>
</tr>
<tr>
<td>19</td>
<td>3.175</td>
<td>3.334</td>
<td>3.503</td>
<td>3.680</td>
<td>3.867</td>
</tr>
<tr>
<td>25</td>
<td>3.867</td>
<td>4.062</td>
<td>4.263</td>
<td>4.482</td>
<td>4.708</td>
</tr>
<tr>
<td>26</td>
<td>3.954</td>
<td>4.162</td>
<td>4.367</td>
<td>4.592</td>
<td>4.823</td>
</tr>
<tr>
<td>27</td>
<td>4.062</td>
<td>4.263</td>
<td>4.482</td>
<td>4.708</td>
<td>4.950</td>
</tr>
<tr>
<td>28</td>
<td>4.162</td>
<td>4.367</td>
<td>4.592</td>
<td>4.823</td>
<td>5.068</td>
</tr>
<tr>
<td>29</td>
<td>4.263</td>
<td>4.482</td>
<td>4.708</td>
<td>4.950</td>
<td>5.195</td>
</tr>
<tr>
<td>30</td>
<td>4.367</td>
<td>4.592</td>
<td>4.823</td>
<td>5.068</td>
<td>5.322</td>
</tr>
<tr>
<td>31</td>
<td>4.482</td>
<td>4.708</td>
<td>4.950</td>
<td>5.195</td>
<td>5.458</td>
</tr>
<tr>
<td>32</td>
<td>4.592</td>
<td>4.823</td>
<td>5.068</td>
<td>5.322</td>
<td>5.597</td>
</tr>
<tr>
<td>33</td>
<td>4.708</td>
<td>4.950</td>
<td>5.195</td>
<td>5.458</td>
<td>5.733</td>
</tr>
<tr>
<td>34</td>
<td>4.823</td>
<td>5.068</td>
<td>5.322</td>
<td>5.597</td>
<td>5.877</td>
</tr>
<tr>
<td>35</td>
<td>4.950</td>
<td>5.195</td>
<td>5.458</td>
<td>5.733</td>
<td>6.024</td>
</tr>
<tr>
<td>36</td>
<td>5.195</td>
<td>5.458</td>
<td>5.733</td>
<td>6.024</td>
<td>6.328</td>
</tr>
<tr>
<td>37</td>
<td>5.322</td>
<td>5.597</td>
<td>5.877</td>
<td>6.168</td>
<td>6.490</td>
</tr>
<tr>
<td>38</td>
<td>5.458</td>
<td>5.733</td>
<td>6.024</td>
<td>6.328</td>
<td>6.650</td>
</tr>
<tr>
<td>40</td>
<td>5.733</td>
<td>6.024</td>
<td>6.328</td>
<td>6.650</td>
<td>6.987</td>
</tr>
<tr>
<td>44</td>
<td>6.328</td>
<td>6.650</td>
<td>6.987</td>
<td>7.343</td>
<td>7.706</td>
</tr>
<tr>
<td>48</td>
<td>6.987</td>
<td>7.343</td>
<td>7.706</td>
<td>8.093</td>
<td>8.495</td>
</tr>
<tr>
<td>49</td>
<td>7.160</td>
<td>7.525</td>
<td>7.903</td>
<td>8.296</td>
<td>8.715</td>
</tr>
<tr>
<td>50</td>
<td>7.343</td>
<td>7.706</td>
<td>8.093</td>
<td>8.495</td>
<td>8.925</td>
</tr>
<tr>
<td>52</td>
<td>7.706</td>
<td>8.093</td>
<td>8.495</td>
<td>8.925</td>
<td>9.373</td>
</tr>
<tr>
<td>54</td>
<td>8.093</td>
<td>8.495</td>
<td>8.925</td>
<td>9.373</td>
<td>9.945</td>
</tr>
<tr>
<td>56</td>
<td>8.495</td>
<td>8.925</td>
<td>9.373</td>
<td>9.945</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>8.715</td>
<td>9.147</td>
<td>9.608</td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>8.925</td>
<td>9.373</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>9.147</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>9.373</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>9.608</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>9.945</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>10.088</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>10.337</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>10.591</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>10.862</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67</td>
<td>11.128</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>11.412</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>11.700</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>11.991</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>12.289</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>12.589</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td>12.899</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>13.233</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>13.551</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>13.895</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>14.231</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td>14.588</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td>14.938</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>15.314</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>15.688</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>82</td>
<td>16.078</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>16.473</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84</td>
<td>16.882</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85</td>
<td>17.293</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>86</td>
<td>17.730</td>
<td>18.160</td>
<td>18.546</td>
<td>19.068</td>
<td>20.021</td>
</tr>
</tbody>
</table>

Attachment #5
RE: REQUEST AUTHORIZATION FOR THE GENERAL MANAGER TO ENTER INTO AN MOU FOR THE REAUTHORIZATION OF THE WHITEWATER RIVER GROUNDWATER REPLENISHMENT FACILITY

The General Manager, Mark Krause, is seeking authorization to enter into a Memorandum of Understanding (MOU) with The Bureau of Land Management (BLM) and the Coachella Valley Water District (CVWD), known henceforth as the Partners. This MOU will lay the foundation for the Partners to work together to reauthorize the existing Whitewater River Groundwater Replenishment Facility (WRGRF) on public federal lands. The intent of the MOU is to establish the responsibilities for each of the Partners and provide a framework for the Partners to work together.

The WRGFG was constructed in 1973 and is located in the Northwest of Palm Springs. CVWD and DWA share the capital investment, operation and maintenance costs of the WRGFG as well as the groundwater replenishment rights. Groundwater recharge is a critical tool for modern water management. The WRGFG allows CVWD and DWA to effectively manage and recharge the groundwater in the Indio Groundwater Subbasin. The recharge water percolated into the WRGFG plays a critical role in allowing CVWD and DWA to comply with the Sustainable Groundwater Management Act (SGMA).

Granting the General Manager the authority to enter into this MOU will allow the Partners to move forward for the reauthorization of the WRGRF on public federal lands. The BLM will be the National Environmental Policy Act (NEPA) Lead Agency developing one joint Environmental Document with CVWD and DWA acting as Co-lead Agencies for California Environmental Quality Act (CEQA). As a Co-lead Agency, DWA will have the opportunity to review the administrative draft of said Environmental Document and provide comments and/or concerns prior to the adoption of a final Environmental Document.

Please note that the BLM is still in the process of reviewing the MOU document. Staff has provided members of the Board with a draft copy of said MOU document for review (see attached). A final version of said MOU document will be provided to members of the Board once it has been approved by the BLM.

Barring any significant material changes to the MOU document, Staff recommends that the Board authorize the General Manager to enter into an MOU with the Partners for the purpose of the reauthorization of the WRGRF on public federal lands.
MEMORANDUM OF UNDERSTANDING
between
THE BUREAU OF LAND MANAGEMENT
and
COACHELLA VALLEY WATER DISTRICT
and
DESERT WATER AGENCY

Whitewater River Groundwater Replenishment Facility Project

This MEMORANDUM OF UNDERSTANDING (MOU) is hereby entered into between the Bureau of Land Management, hereinafter referred to as the BLM, the Coachella Valley Water District, hereinafter referred to as CVWD and the Desert Water Agency, hereinafter referred to as DWA. The BLM, CVWD and DWA are hereinafter referred together as the Parties.

A. INTRODUCTION AND PURPOSE:

CVWD filed to reauthorize the existing Whitewater River Groundwater Replenishment Facility (Facility) on public federal lands. The purpose of the Facility is to replenish the Whitewater River Subbasin by utilization of replenishment ponds to eliminate/prevent groundwater overdraft (Project). CVWD and DWA share the operation and maintenance of the Facility as well as the groundwater replenishment rights. The federal lands within the Project area are subject to BLM jurisdiction and CVWD has applied for rights-of-way associated with the relevant federal lands in accordance with BLM regulations. Refer to Project site map attached as Exhibit “A”.

The purpose of this MOU is to provide a framework for cooperation between the BLM and CVWD/DWA to work together as the National Environmental Policy Act of 1969 (NEPA) Federal Lead Agency (BLM) and the California Environmental Quality Act (CEQA) Co-State Lead Agencies (CVWD/DWA) for the Project. Acting in their respective Lead Agency capacities, the BLM and CVWD/DWA agree to prepare and complete a joint environmental analysis document that is in compliance with NEPA and CEQA, and related laws, executive orders, regulations, and guidelines (Environmental Document). Work to complete the Environmental Document would include, but is not limited to, environmental, scientific, and technical information collection, analysis and reporting. This MOU may involve in-person meetings, site visit(s), and/or conference calls as necessary for planning, information sharing, gathering and incorporating comments to ensure CEQA and NEPA compliance. This coordination serves the mutual interest of the Parties and the public.

B. STATEMENT OF MUTUAL BENEFIT AND INTERESTS:

The Council on Environmental Quality (CEQ) regulations (40 CFR 1506.2) direct federal agencies to cooperate with State and local agencies to the fullest extent possible to reduce duplication between NEPA, State and local requirements, including planning processes, environmental research and studies, public hearings, and environmental impact statements. The CEQ regulations (40 CFR 1501.6) provide for and describe both lead and cooperating agency status, and emphasize agency cooperation early in the NEPA process. For the purposes of this effort, BLM will be the NEPA Lead Agency developing one joint Environmental Document with CVWD/DWA acting as Co-Lead Agencies for CEQA. CVWD/DWA will retain their approval authority for all aspects of the Project within their jurisdiction.
Under State CEQA Guidelines §§ 15222 and 15226, the CEQA Lead Agency (CVWD/DWA) should cooperate with BLM to the fullest extent possible to reduce duplication between CEQA and NEPA and avoid the need for BLM to prepare a separate document.

This MOU meets the intent of CEQA and NEPA regulations and provides guidance on the roles each Party will take. In consideration of the above premises, the Parties agree as follows:

C. **BLM SHALL:**

1. Be responsible for ensuring compliance with the requirements of NEPA, the CEQ, and BLM regulations implementing NEPA, along with all applicable federal laws, executive orders, regulations and direction, and shall be responsible for the portion of the Environmental Document that relates to federal law.

2. Meet with CVWD/DWA to discuss status updates, related findings, schedules and planning associated with the Environmental Document.

3. Provide updated mailing lists to the Consultant for distributing the public notice of availability of the Environmental Document to the public and to other Federal, State, and local agencies as required by law. The BLM shall provide updated mailing lists, and Record of Decision to the public and to other Federal, State, and local agencies as required by law.

4. Publish the Notice of Intent (NOI) and other NEPA notices in the Federal Register, work with CVWD/DWA to develop other public notices including notices that satisfy CEQA and the Notice of Availability of the Environmental Document, and ensure publication in appropriate periodicals.

5. Provide oversight to the Consultant in filing the draft and final Environmental Document with the U.S. Environmental Protection Agency as required by NEPA.

6. Be responsible for consulting with the United States Fish and Wildlife Service for Section 7 Consultation and the California State Historic Preservation Officer for a Section 106 Consultation regarding proposed federal action; at the discretion of the BLM, the Consultant shall furnish such data or information required to accomplish such consultation; the BLM shall include CVWD/DWA staff in these meetings and discussions; and act as the lead for Native American consultation.

7. As required, be responsible for consulting with the California Department of Fish and Game.

8. To the extent that CEQA or NEPA guidelines may preclude, or are potentially inconsistent with, construction/operation/maintenance/repair of the Project that is the subject of this MOU, the BLM will identify such potential inconsistencies at the beginning of the joint process prior to public release of the draft Environmental Document and shall collaborate with CVWD/DWA and the Consultant to ensure that sufficient information is collected during the course of the environmental assessment process to allow the BLM to begin the Environmental Document for the Project, remove such inconsistencies, and allow the Project to be carried forward.

D. **CVWD/DWA SHALL:**
1. Be responsible to ensure that the Environmental Document is in compliance with all requirements of CEQA and be responsible for the scope and content of the Environmental Document as it relates to CEQA.

2. Determine the appropriate CEQA Environmental Document required for the Project assessment based on preliminary review, which may include the preparation of an Initial Study.

3. Retain and pay for a CEQA/NEPA Consultant (Consultant), approved by both the BLM and CVWD/DWA, to prepare the Environmental Document and use CVWD/DWA’s best efforts to ensure that the contract with the Consultant incorporates all of the following conditions:

   (a) The Consultant agrees to defend, hold harmless and indemnify the BLM and CVWD/DWA with respect to any and all claims, demands, cause(s) of action, and liabilities which may arise from the consultant’s performance, purchases, or services utilized in the preparation of the Environmental Document.

   (b) The Consultant will sign a disclosure statement specifying that it has no financial or other interest in the outcome of the Project.

   (c) The Consultant shall cooperate in defense of any appeal and/or suit involving the legality or adequacy of the BLM’s or CVWD/DWA’s compliance with NEPA or CEQA with regard to the Environmental Document.

   (d) The Consultant will be responsible for all stenographic, clerical, graphics, layout, printing, and like work.

   (e) The Consultant shall produce an internal administrative draft of the Environmental Document for review and editing by the BLM and CVWD/DWA prior to publication of the draft Environmental Document. The administrative draft shall include all text, maps, appendices, tables, charts, and other materials that will be incorporated in the draft Environmental Document for publication. As determined by both the BLM and CVWD/DWA, the Consultant shall provide a reasonable number of copies to each Party to meet internal review needs.

   (f) Subject to the Parties’ comments and edits, the Consultant shall have primary responsibility for writing and rewriting all sections, parts, and chapters of the Environmental Document.

   (g) The Consultant will provide all graphic handouts and presentations for public meetings/hearings. The Consultant shall submit any such graphic presentations and/or handouts to the BLM and CVWD/DWA for approval prior to distributing them at public meetings/hearings.

4. Provide to the BLM for review and comment a draft of the Project description and alternatives section as soon as they are available to ensure that adequate detail is included to support the BLM’s review, analysis, and decisions.

5. Provide the administrative draft of the Environmental Document to the BLM for its review and comment prior to the release of the public draft.

6. Ensure that the Consultant completes the environmental analysis and prepares the
Environmental Document in a form and in substance that is consistent with this MOU and agreeable to the Parties.

7. Be responsible for conducting public meetings and provide the BLM with sufficient advanced notice of these hearings so that the BLM can attend and participate as the NEPA Lead Agency.

8. Reserve the right to prepare, at its option, selected sections of the administrative draft and/or final Environmental Document; CVWD/DWA will provide such prepared material in a timely manner to the BLM for review and an opportunity to provide input regarding content, legality, and adequacy prior to public review.

9. Complete all applicable requirements of AB52.

E. IT IS MUTUALLY AGREED AND UNDERSTOOD BY ALL PARTIES THAT:

1. **Schedule of Deadlines.** The BLM intends to make a decision on the Project by December 2018. All Parties will attempt to ensure this timeframe is met.

2. **Consultant Selection.** The Consultant will be approved by both the BLM and CVWD/DWA for the preparation of the Environmental Document and supporting studies.

3. **Agency Project Representatives.** For the purpose of coordinating the Parties’ responsibilities for the preparation of the Environmental Document, the persons listed below are the designated Agency Project Representatives. Actual delivery of written notice to the following representatives, or such substitute representatives as the respective Parties may hereinafter designate, shall constitute notice to that organization.

   **BLM**
   Name: Brandon G. Anderson  
   Title: Project Manager  
   Address: 1201 Bird Center Dr.  
   Address: Palm Springs, CA 92261  
   Phone: (760)833-7140  
   FAX: (760)833-7199  
   E-Mail: bganderson@blm.gov

   **CVWD**
   Name: Carrie Oliphant  
   Title: Assistant Director of Engineering  
   Address: 75-515 Hovley Lane East  
   Address: Palm Desert, CA 92211  
   Phone: (760) 398-2651 x 2268  
   FAX: (760) 568-1789  
   E-Mail: coliphant@cvwd.org

   **DWA:**
   Name: Mark Krause  
   Title: General Manager  
   Address: 1200 S. Gene Autry Trail  
   Address: Palm Springs, CA 92264
4. **Regular Consultation between Parties.** The successful preparation and completion of the Environmental Document requires complete and full communication between the Parties. It is the duty of the Agency Project Representatives to ensure close consultation throughout the Environmental Document preparation and review process. Accordingly:

   (a) The Agency Project Representatives shall keep each other advised of the developments affecting the preparation of the Environmental Document. Toward this end, and to ensure close consultation and coordination, the Agency Project Representatives shall conduct conference calls as necessary and shall meet face-to-face at least once every two months or more often as deemed necessary.

   (b) In the event that an Agency Project Representative is unable to participate in any such regularly scheduled conference call or meeting, an alternate shall be delegated to represent that Agency Project Representative's Party in the call or meeting.

   (c) The BLM recognizes the need for CVWD/DWA to work directly with the Consultant with regard to the portions of the Project under CVWD/DWA's jurisdiction and the CEQA requirements. CVWD/DWA will keep the BLM informed of these discussions and will involve the BLM when appropriate.

   (d) Consistent with existing laws and regulations, the Parties agree to share all relevant information.

   (e) Any and all media releases and/or public mail-outs shall be made with the joint approval and at the direction of the BLM and CVWD/DWA.

5. **Scope and Content of the Environmental Document.** The BLM, CVWD/DWA and the Consultant shall schedule and conduct scoping meetings at the beginning of the process as required by CEQA and NEPA. These meetings will be held to determine the areas of public and agency concerns pertaining to the Project and guide the Parties in scoping the Environmental Document. The BLM and CVWD/DWA shall determine the final scope of the Environmental Document. The Agency Project Representatives shall determine (with approval, if necessary, from the signatories to this MOU or their delegates):

   (a) The scope and content of the Environmental Document to ensure that federal and state requirements are met and that the statutory findings required of the BLM and CVWD/DWA for their respective decisions on the Project can be made.

   (b) Whether the work performed by the Consultant is satisfactory per the requirements of CEQA and NEPA, and if not, how best to correct the deficiencies in the work.
6. **Revisions.** CVWD/DWA and the BLM may review and revise the administrative draft and subsequent drafts of the Environmental Document.

7. **Consultation with Other Agencies.** The BLM and CVWD/DWA reserve the right to consult directly, without notice or report, with other Federal, State, and local agencies regarding their areas of specific responsibility outlined in Sections C and D above during the preparation of the Environmental Document to ensure objectivity and compliance with NEPA and CEQA. The Parties will immediately notify each other and the Consultant if matters discussed at any such consultation will require significant changes in the development of the Environmental Document or require significant costs pursuant to this MOU.

8. **Privileged and Confidential Information.** The BLM will, upon request, provide CVWD/DWA with procedures and underlying data used in developing submitted sections of the draft and final Environmental Document including, but not limited to, final reports, subcontractor reports, and interviews with concerned private and public parties, whether or not such information is contained in the working papers or the draft or final Environmental Document. The Parties intend that information that is otherwise protected from disclosure under the attorney-client privilege, work-product privilege, and deliberative process privilege and/or any other applicable privilege may be exchanged without waiving or compromising such privileges or doctrines. The Parties agree that privileged information received from the other Party(ies) shall be treated and maintained as confidential to the extent allowed by federal and state laws, regulations and policies. Parties agree to label as "Confidential" documents that they believe are privileged and should not be disclosed. The Parties will not disclose privileged information received from another Party, regardless of whether it is labeled "Confidential," without first notifying other Party(ies).

9. **Freedom of Information Act and California Public Records Act.** Any information furnished to the BLM under this MOU is subject to disclosure under the Freedom of Information Act (5 U.S.C. 552) except as exempted by that Act or other applicable provision of federal law. Any information furnished to either CVWD or DWA is subject to disclosure under the California Public Records Act (Government Code Sections 6250 et seq.) except as exempted by that act or other applicable provisions of law.

10. **Effective Dates.** This MOU is executed as of the date of the last signature and is effective until all mitigation measures required in connection with approval of the Project have been fully implemented, at which time the MOU will expire unless extended by the mutual written consent of the Parties.

11. **Modification.** Modifications to this MOU shall be made only by mutual written consent of the Parties, by the issuance of a written instrument, signed and dated by all Parties.

12. **Termination.** Any Party, in writing, may terminate this MOU in whole, or in part, at any time before the date of expiration upon 30 days written notice to the other Parties. During any such 30-day waiting period, the Parties will actively attempt to resolve any disagreement between them. In the event of termination of this MOU, the BLM and CVWD/DWA shall have access to all documentation,
reports, analyses, and data developed by the Consultant.

13. Rights and Responsibilities of Parties. This MOU sets forth the Parties' rights and responsibilities for preparing the Environmental Document and for subsequent activities related to the Environmental Document. This MOU in no way restricts the BLM or CVWD/DWA from participating in similar activities with other public or private agencies, organizations, and individuals. This MOU does not authorize the transfer of funds between Parties. Each Party is responsible for its own acts and omissions in connection with activities undertaken pursuant to this MOU.

14. Mitigation Responsibility. Should the decision be made to authorize and approve the Project, the BLM and CVWD/DWA will jointly define appropriate field inspection responsibilities for ensuring implementation of the mitigation and monitoring activities adopted in the Record of Decision/Notice of Determination and approval for the Project.

THE PARTIES HERETO have executed this instrument as evidenced below:

**Bureau of Land Management**

Douglas J. Herrema, J.D, Field Manager  
Palm Springs Field Office

____________________  ______________________
Date  Date

**Coachella Valley Water District**

J.M. Barrett, General Manager

**Desert Water Agency**

Mark Krause, General Manager

____________________
Date
CEQA & NEPA Scope of Work:

The following is a preliminary list of tasks required to prepare an EIR/EIS for the project:

Tasks:
1. Plan, schedule, conduct, and document agency and public meetings
2. Work with the BLM, CVWD/DWA, and the Cooperating Agencies to draft clear and concise project descriptions, statements of purpose and need, and alternatives for the project.
3. Project Kick-Off Meeting & Site Visit with CVWD/DWA, BLM, and Environmental Consultant
4. Confirm Project Description
5. CVWD/DWA and BLM to meet with key stakeholders
6. Initiate Technical/Scientific Studies
7. CEQA Initial Study (option)
8. CEQA AB52 Consultation with Native American Tribes
9. CEQA Notice of Preparation serves as official legal notice that CVWD/DWA is commencing an EIR {30-day review period}
10. NEPA Notice of Intent serves as the official legal notice that BLM is commencing an EIS {30-day review period}
11. Scoping Meeting and summary report {optional site visit with others, as needed, following scoping meeting}
12. Formulate Project Alternatives
13. American Disability Act section 508 compliant Administrative Draft EIR/EIS
14. Administrative Draft EIR/EIS
15. Screencheck Draft EIR/EIS
16. Circulate/Publish Public Review Draft EIR/EIS and CEQA & NEPA Notices {45-day review period}
17. Response to Comments Received on the Draft EIR/EIS
18. Administrative Final EIR/EIS
19. Screencheck Final EIR/EIS
20. Circulate Public Review Final EIR/EIS and NEPA Notice {NEPA requirement} {CEQA requirement to provide to Agencies minimum 10 days prior to Project Hearing}
21. Response to comments received after public review period
22. Project Hearing to consider Final EIR/EIS and approve project
23. CEQA Notice of Determination
24. NEPA Record of Decision
Coachella Valley Water District/Desert Water Agency & Bureau of Land Management

Whitewater River Groundwater Replenishment Facility Project

Environmental Scope of Work - Internal Working Draft Only

April 2017

Page 2 of 3

**EIR/EIS Preliminary Outline:**

- Table of Contents
- Summary
- Introduction {Purpose and Need}
- Proposed Action and Alternatives Environmental Analysis
  - Resource topics may include: aesthetics and visual resources; air quality; biological resources; cultural resources; geology, soils and topography; hydrology and water quality; land use; public safety and hazards; public services and utilities; and socioeconomics and environmental justice.

**CEQA Topics**

- Consultation and Coordination
- Mitigation Monitoring and Reporting Program
- References

**Technical Studies:**

- Technical Reports on Effects: Effects assessment and description will meet CEQ requirements. A technical report will be written documenting all assumptions, calculations, and results used or obtained during the study. Analysis will be factual, unbiased, and quantified to the extent practicable. The typical table of contents for each technical report will include these sections: (I.) Introduction; (II.) Methodology; (III.) Existing Environment; (IV.) Assessment of Potential Effects; (V.) Mitigation Recommendations; (VI.) Literature Cited and Contacts. The Contractor shall prepare the Environmental Consequences section of the EIS. Each resource analysis will include a conclusion statement regarding the overall impact of the proposed action of and alternatives on the subject resource. The following is a list of effects work tasks based on the preliminary issues.

1. Cultural Resources Report [Applied Earthwork is under contract and has initiated work]

2. Hydrology and Water Quality report that identifies the following:
   - All groundwater basins or sub-basins and their relationships relevant to the project
   - Potential effect of the project on existing surface and ground water uses
   - Surface and ground water quality changes and indicate whether water uses will be impacted by the project
   - Effects of the project to surface water quality and quantity

3. Air Quality/Greenhouse Gas Emission Assessment
4. Focused Biological Assessments with protocol surveys for the following species:
   - Coachella Valley Milk-Vetch (*Astragalus lentiginosus var. coachellae*) LISTED;
   - Coachella Valley Fringe-toed Lizard (*Uma inornata*) LISTED;
   - Palm Springs Little Pocket mouse (*Perognathus longimembris bangsi*) Not listed, BLM sensitive;
   - Palm Springs Round-Tailed Ground Squirrel (*Spermophilus tereticaudus chlorus*) Not listed, BLM sensitive;
   - Burrowing Owl;
   - Coachella Valley giant sand-treader cricket;
   - Coachella Valley Jerusalem cricket;
   - Le Conte’s Thrasher;
   - Other (as may be determined through the environmental review process)

Utilize monitoring protocols developed for the CVMSHCP for this project: *Alluvial Fan Communities and Species Monitoring Protocols* and *Aeolian Sand Communities and Species Monitoring Protocols*.

---

1 The range of environmental issues must be sufficient to characterize the environmental setting in the project area and environment effects associated with the project and to satisfy the requirements of both CEQA & NEPA. The range of topics and preliminary outline is subject to change in consideration of review by the Consultant and as a result of project scoping.
STAFF REPORT
TO
DESERTE WATER AGENCY
BOARD OF DIRECTORS

MAY 2, 2017

RE: REQUEST AUTHORIZATION TO ENTER INTO AGREEMENT REGARDING 2017 ARTICLE 21 AND TURNBACK POOL PARTICIPATION

The Agency has requested to receive additional supplementary water supplies from the Department of Water Resources during 2017. We requested Article 21 water, Pool A & B water and Yuba Exchange water. The Agency has already received Article 21 water supplies and is anticipating future delivery of Pool A water.

The allocation for Pool A water is based on the allocation of 60% on February 15, 2017, the Agency had an order submitted for that allocation percentage on that date.

It is unlikely that the Agency would receive Pool B water since the State Water Project allocation has increased to 85%. The Agency did not request Pool water above a 75% allocation. If the allocation were to fall to 75% or below on June 1, 2017, we would be allocated Pool B water, however this is highly unlikely.

It is anticipated that the State Water Project capacity for “transfer water” delivery during July, August and September (the transfer window) will be completely filled to capacity with the delivery of Table A supplies, thus leaving no room for water transfers.

The Agency’s current water exchange agreement with Metropolitan Water District (MWD) does not guarantee the delivery exchange of supplementary water supplies acquired by the Agency. The agreement for delivery of supplementary water supplies is negotiated on a case by case basis. We are currently in negotiations with MWD for the delivery of exchange water for our supplementary water supplies. The draft agreement is attached for your review and approval.

The proposed agreement specifies that MWD will deliver our supplementary water provided that it does not harm MWD. If MWD cannot deliver its entire Table A supply water into its service area, our supplemental water could be reduced as specified in the agreement. The reduction will only affect our supplemental water delivery but not our Table A delivery amount.

Provided that there are no material changes to the attached draft agreement, Staff requests authorization for the General Manager to enter into an agreement with MWD and Coachella Valley Water District for the delivery exchange of supplemental water supplies for 2017.
Mr. James Barrett  
General Manager  
Coachella Valley Water District  
P.O. Box 1058  
Coachella, CA 92236

Mr. Mark Krause  
General Manager  
Desert Water Agency  
1200 S. Gene Autry Trail  
Palm Springs, CA 92264

Dear Mr. Barrett and Mr. Krause:

Agreement Regarding 2017 Article 21 and Turnback Pool Participation

On November 19, 2007, MWD, CVWD, and DWA adopted “Attachment 2 to Exhibit to Letter Titled ‘Implementation of 2003 Exchange Agreement- Establishment of Long-Term Operating Criteria.’” Under the 2003 Exchange Agreement and operating criteria, Metropolitan exchanges CVWD and DWA’s State Water Project annual Table A amounts, and the parties agreed to work together to obtain additional water for exchange with CVWD and DWA. During 2017, CVWD and DWA are interested in obtaining Article 21 water, Turnback Pool A and B (Turnback Pool) water, and Yuba transfer water and exchanging them with MWD. This agreement contains the terms in which any CVWD and DWA Article 21 water, Turnback Pool water, and Yuba transfer water will be exchanged with MWD in 2017.

Pursuant to Attachment 2 of the Long-Term Operating Criteria, MWD, CVWD, and DWA agree to the following:

1. MWD will coordinate communication of Article 21 demand schedules to DWR according to the procedures outlined in the attachment to DWR’s Notice to State Water Contractors 17-02, 2017 Article 21 Water Program.

2. CVWD and DWA will submit any Turnback Pool or Yuba transfer requests directly to DWR and provide a copy of requests to MWD.

3. The scheduled Article 21 demands for MWD, CVWD, and DWA will be apportioned among MWD, CVWD, and DWA by 2017 maximum Table A amounts.

4. MWD will manage its water supplies to take all reasonable efforts to deliver or store its Table A water supplies in 2017. As in prior years, MWD will manage CVWD and DWA Table A supplies, including carrying those supplies over into 2018, if necessary, in CVWD and DWA’s San Luis Reservoir carryover account.
The parties agree to share the risk that MWD may be unable to take delivery to its service area or store in its suite of storage programs all of its allocated 2017 Table A supplies during 2017 due in part to CVWD and DWA Article 21, Turnback pool, and Yuba transfer deliveries. In such an event, CVWD’s and DWA’s 2017 Table A deliveries through the MWD exchange agreements will be reduced by an amount equal to 50% of the amount of MWD’s Table A supplies that were not able to be delivered or stored in 2017, but this reduction shall not exceed the total amount of CVWD’s and DWA’s 2017 Article 21, Turnback pool, and Yuba transfer deliveries.

5. Any reduction in CVWD’s and DWA’s Table A deliveries through the MWD exchange agreements under section 4 will be apportioned between CVWD and DWA based on the respective share of each in the sum total of CVWD’s and DWA’s Article 21, Turnback Pool and Yuba transfer deliveries.

6. In the event that MWD does not deliver all of CVWD’s or DWA’s Table A amounts in 2017, MWD will coordinate with CVWD and DWA to explore storage or exchange opportunities for managing that water with other SWP contractors.

If this arrangement is acceptable to you on behalf of CVWD (or DWA), please acknowledge your agreement by signing both original letters and returning one to us. This letter will constitute our agreement to the foregoing terms.

If you have any questions, please contact Bill Hasencamp, of my staff, at (213) 217-6520.

Sincerely,

______________________________
Jeffrey Kightlinger
General Manager
The Metropolitan Water District of Southern California
ACCEPTED AND AGREED TO

________________________________
James Barrett
General Manager
Coachella Valley Water District

Date: ____________________________

ACCEPTED AND AGREED TO

________________________________
Mark Krause
General Manager
Desert Water Agency

Date: ____________________________
MEMORANDUM

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

FROM: BEST BEST & KRIEGER LLP

STATE WATER CONTRACTORS, INC.

The April 20, 2017, meeting of the Board of Directors of the State Water
Contractors, Inc., took place at the Tsakopoulos Library Galleria in downtown Sacramento.

1. Board Action Items

The SWC Board authorized a formal protocol for the SWC to weigh in on
legislation requiring an immediate response. Under the process, General Manager Jennifer
Pierre will send a draft copy of any letters in which the SWC proposes to take a legislative
position to the SWC Board and a committee at least four hours in advance of submission, unless
agreement on a position already has been established. SWC will not send the letter out if any
Member Agency communicates opposition to the draft letter unless that Member Agency
authorizes the letter to be sent with notation that they do not join it. Jennifer emphasized that
this process will be used when time is of the essence, and that more time will be allotted for
Member Agency review when such time is available.

The Board also received information about two changes to the Board’s Bylaws
designed to address the Board’s desire for more flexibility in handling certain fund issues. One
change to Section 4.05, “Dues and Costs,” would remove certain detailed allocation
methodologies and instead give the Board more discretion to set and allocate funds. The other
change to Section 11.01, “Amendment of Bylaws,” would align this section with Section 4.05 by
deleting a requirement that allocation of dues or assessments among members must be subject to
a two-thirds vote of the Board. These fundamental changes are part of an overall streamlining of
the Bylaws. SWC General Counsel Stefanie Morris explained that other Bylaws changes have
already been reviewed and that a written ballot will go out within a week for Members’ voting action.

2. **Water Supply Report**

Tracy Pettit, Chief of DWR’s Water Management Branch, provided the report on water supply conditions. On April 14, DWR began reusing the damaged spillway at Oroville Dam by releasing 35,000 cubic feet per second (cfs) from Oroville Dam. This rate has been sustained since then and will continue into early May, at which time flows will be shut down to accommodate further inspections of the damaged spillway. Storage in Lake Oroville was at 84 percent of capacity as of April 18, while Lake Shasta was at 96 percent of capacity. Repairs on the Clifton Court Forebay intake structure were finished and its gates were opened in mid-April, with combined exports now running at 6,600 cfs. San Luis Reservoir was at 98 percent capacity as of April 18; it now has 1.01 million acre-feet and is expected to reach capacity of 1.062 million acre-feet by early May. Other reservoirs ranged from 95 percent of capacity (Trinity Lake) to 44 percent of capacity (Lake Perris.)

Northern Sierra precipitation as of April 19 was at 209 percent of average for the date, officially eclipsing the record set in 1983. The Central Sierra / San Joaquin region’s precipitation was 198 percent of average for the same date, while farther south, precipitation in the Tulare Basin stood at 177 percent of average for the date. Snow water content, another important measure, on April 19 was 180 percent of the April 1 average in the North, 196 percent of the average for the date in the Central region, and 179 percent of average for the date in the more southerly region.

A question arose during the meeting about whether subsidence impacting the Aqueduct, which was discussed at the last meeting, is affecting supply allocations by DWR. Eric Chapman, SWC Deputy General Manager, said the subsidence is not affecting allocations, but has been having an impact on operations in the form of round-the-clock monitoring. Eric noted that potential Aqueduct liner damage also is being studied. Elevated groundwater pumping is believed to be the cause of the subsidence. Stefanie Morris explained that the SWC is concerned about these conditions, but will need to wait for future actions under the Sustainable Groundwater Management Act (SGMA) to identify parties responsible for the pumping before...
SWC can take action. Groundwater Sustainability Plans required under SGMA must address subsidence. Thus, more information about specific past and present pumping practices is expected to emerge as those plans are developed over the next several years. More discussion on this topic is planned for the next Board meeting.

3. General Manager’s Report and Update on Oroville Spillway Damage

Jennifer Pierre noted that she and others from the organization were able to visit the Oroville Dam earlier in April to view the damaged spillway. Eric Chapman then provided the Board with an update on the Oroville situation.

The spillway is currently being used to draw down the lake, and one more drawdown is anticipated later this spring for what is expected to be heavy spring runoff. Once repair work begins later this spring, DWR’s goal is to have the spillway “workable” by November 1, and also to fortify the emergency spillway. As has been reported publicly, the federal government has approved $274 million in funding to cover emergency costs already incurred. The federal funding will not come as a single up-front payment, but rather will be paid out upon claims being submitted, similar to an insurance claim process. Additionally, on April 17, DWR awarded a $275 million contract to Kiewit Infrastructure West Co. to conduct the future repair work. (Kiewit is an experienced firm that did the recent Folsom Dam modifications.) Eric cautioned that this amount was based on a 60 percent completed design. DWR is seeking to maximize funding from FEMA and other sources to reduce the amount that falls upon the Contractors; potential funding amounts and allocations are not known at this time.

Eric further explained that DWR has decided to secure a dedicated emergency “commercial paper” line of credit to ensure that DWR can obtain the necessary capital funding for repair costs at Oroville Dam. Attached to this report is a package of documents with further information on these issues, which were provided to the Board and are considered public.


Attached to this memo is a power point presentation, titled “DWR Quagga Mussel Update” and shared with the Board by Tanya Veldhuizen of DWR. She explained the mussel life cycle, the problems associated with them, the State Water Project Mussel Vulnerability
Assessment, and recent discoveries of mussels within SWP facilities. Mussels attach to structures, as well as to themselves, and can withstand very high flow velocities. This leads to swift and heavy colonization and problems for several types of SWP infrastructure. For example, water flow can be blocked when they attach and accumulate on trash racks, intake screens and pipes. This creates ongoing costs for manual removal, cleaning processes and chemical treatments. DWR has conducted an early detection and monitoring program for mussels since 2007, which includes boat inspections to reduce the transport of mussels.

In December 2016, DWR discovered a Quagga Mussel invasion in the West Branch, including 16 dead mussels attached to walls inside the Angeles Tunnel, two dead mussels in the Elderberry Forebay near Castaic Powerplant, and a live mussel observed during an inspection of the Pyramid Lake-Angeles Tunnel. Pyramid Lake and Elderberry Forebay have been officially classified as “infested” by the California Department of Fish and Wildlife, and Castaic Lake is classified as “presumed infested.” Mussels have not been found in other parts of the West Branch, nor has evidence been found of mussel reproduction. DWR is now trying to determine whether the population found in the West Branch is self-sustaining or “aging out.”

Additionally, in the East Branch, routine microscopic sampling in February 2017 turned up mussel veligers (larval stage) in the Devil Canyon North Park Valve of the Santa Ana Pipeline. It was not possible through DNA analysis to determine the type of mussel discovered; thus the status of the potential infestation remains “unconfirmed” at this time. No veligers have been detected at North Park since February, and monitoring and inspections are continuing. DWR and the Metropolitan Water District have tentatively scheduled a dewatering and inspection of the Santa Ana pipeline for late April, and treatment options are being investigated.

5. Water Supply Objectives Update


The California WaterFix project remains an important priority. This project involves upgrading the existing water conveyance system in the Delta by constructing three new intake facilities on the Sacramento River and two new underground pipelines. In the update discussion, Allison noted that the necessary Biological Opinions and California Endangered
Species Act Section 2081 Permits are still being developed. The Record of Decision under the National Environmental Policy Act (NEPA) can be issued following the release of the Biological Opinions, which are expected later this spring. Hearings on the Change in Point of Diversion before the State Water Resources Control Board are ongoing. Part 1 of the Change in Point of Diversion hearings is expected to be completed in summer or fall of 2017.

Alison also discussed the Coordinated Operations Agreement between the state and federal government. The Agreement defines operations between the CVP and the SWP to equitably share available water supply and the responsibility for water supply obligations. The Agreement, negotiated in the 1980s, needs to be updated. As a result, a number of discussions have occurred, though several recent meetings have been cancelled and the problems at Oroville Dam have caused further delays. Another meeting is scheduled for June.

The update also included discussion of collaborations with DWR to determine how to implement the Reasonable and Prudent Alternatives under the 2008 and 2009 Biological Opinions for fish species, such as habitat restoration and monitoring. A DWR/SWC Delta Compliance Committee has been set up to coordinate with DWR to review budget and planning processes and to track DWR projects and costs and explore cost-share planning with the CVP. Additionally, Allison provided an update on Water Operations Evaluation efforts, including a new forecasting tool that is being tested with the goal of enabling SWC to monitor precipitation, evaluate available water supplies, and predict water supply allocations during the runoff season.

Allison also touched on the “Collaborative Adaptive Management Team,” a working group formed as an outgrowth of litigation over Delta smelt and salmon issues. Members include managers and scientists representing state and federal agencies, water contractors, and non-governmental organizations. The goal is to promote a collaborative and structured scientific process and to identify study projects that will improve the knowledge of fisheries and water use and resolve difficult issues. The group has identified three major study areas for Delta smelt (entrainment effects, fall X2, and monitoring evaluation), while studies applicable to salmon are currently being identified.

As the SWC Board has been apprised in prior meetings, the State Water Resources Control Board has been weighing new Sacramento River flow requirements under
Phase 2 of the Board’s update to the Bay-Delta Water Quality Control Plan. The Board has recommended a range of 35 percent to 75 percent of “unimpaired” inflows into the Delta from upstream tributaries to the Sacramento River basin and Delta eastside tributaries to protect fish and wildlife beneficial uses. Similar Delta outflows have been recommended. This use of “unimpaired” flows is of great concern to many parties, including the State Water Contractors, who prefer a “functional flow” approach. The Phase 2 hearings, as well as Phase 1 hearings involving the San Joaquin River, have been put hold while other parties pursue voluntary settlement discussions as an option to the unimpaired flow approach supported by the Board.

DEB KOLLARS
Overview

I. Quagga Mussel Information
   A. Mussel life cycle
   B. SWP vulnerability assessment
   C. Mussel impacts
II. Mussel Monitoring & Prevention Program
III. West Branch Quagga Mussel discovery & response
IV. East Branch Quagga Mussel discovery & response
V. Next steps
Mussel Life Cycle

- **Larval stage (veligers)** - microscopic, free-floating in water column
  - Lasts several weeks
  - Enter facilities in raw water and attach inside
  - Spread downstream with water flow or can be transported in water on boats
- **Adult mussels attach to surfaces with byssal threads**
  - Very small when newly settled
  - Can attach to boats and spread to other waterbodies
    - Can survive out of water for days
- **Mussels live 2-3 years**

SWP Mussel Vulnerability Assessment

- Based on 10 years of calcium and pH data
- **Zone 1** - not able to support
- **Zone 2** - potentially able to support
- **Zone 3** - able to support
Vulnerable Infrastructure in the SWP

• Attach to trash racks and intake screens
  • Can completely occlude racks
• Attach inside pipes
  • Can block water flow in small diameter pipes
• Attach in gate/stop log tracks
• Clog filters and strainers
• Increased maintenance
  • Manual mussel removal
  • Cycling of gates
  • Cleaning of strainers
  • Chemical treatments
Mussel Early Detection Monitoring and Prevention Program

- Early detection monitoring in SWP since 2007
- Boat inspections at vulnerable reservoirs to prevent mussel introduction

Mussel Monitoring

- Veliger sampling
  Used to monitor mussel spawning and veliger density
Mussel Monitoring

- Settlement Plates used to monitor mussel settlement, density, and growth

West Branch Quagga Mussel Discovery & Response

- Discovered December 2016
- Angeles Tunnel
  - 16 dead mussels attached to tunnel walls
  - Spaced 50-500 feet apart
  - Size range 13-33 mm
- Elderberry Forebay
  - 2 dead mussels near Castaic Powerplant
- Pyramid Lake-Angeles Tunnel intake structure
  - 1 live mussel observed during ROV inspection
Mussels Found in Angeles Tunnel

Mussel Found on Pyramid Lake-Angeles Tunnel Intake Screen
West Branch Quagga Mussel Discovery & Response

- Surveys of hard structures and veliger samples collected in Pyramid & Castaic
- Mussels NOT found:
  - In Pyramid Lake upstream of the Angeles Tunnel intake area
  - Downstream in Castaic Lake
  - MWD Foothill Hydroelectric Plant downstream of Castaic
- No evidence of mussel reproduction
  - No sub-adult mussels found, no larval mussels (veligers) detected
- Pyramid Lake and Elderberry Forebay classified as "infested" by CDFW
- Castaic Lake classified as "presumed infested" by CDFW

West Branch Quagga Mussel Discovery & Response

- Quagga Mussel Control Plan submitted to CDFW on April 16th
- Required by Fish & Game Code Section 2301
- Mussel containment at Pyramid: preventing spread to other waterbodies
  - Exit inspections on boats
  - Red tagging of boats
  - Boats entered into database
- Same precautions at Castaic even though not infested
- Angeles Tunnel: mussels eradicated by desiccation and hand removal
- Elderberry Forebay: DWR and LADWP to coordinate on control plan
East Branch Mussel Discovery & Response

- February 2017- Devil Canyon North Park Valve of Santa Ana Pipeline
  - Mussel veligers observed by microscopy
  - Unable to confirm with DNA analysis
  - Sampling frequency increased to weekly, sample volume increased
  - No further veliger detections to date
East Branch Mussel Discovery & Response

• Routine and increased monitoring upstream and downstream of North Park – no mussels detected
  • Check 66
  • Silverwood Lake
  • Devil Canyon 1st and 2nd Afterbays
  • Lake Perris
• Status remains “unconfirmed” due to lack of DNA confirmation
• Veligers have not been detected at North Park since February
Next Steps

• Work with CDFW to finalize and implement Quagga Mussel Control Plan
• Continued monitoring for veligers; samples to be analyzed by Scripps, MWD and CDFW labs
• Continued monitoring for adult mussels
  - Settlement plates
  - Surveys of hard structures (docks, buoys, moored boats, etc)
  - Inspections when facilities are taken out of service
• Santa Ana Pipeline dewatering and inspection (DWR and MWD) tentatively scheduled for late April
• ROV and diver surveys of Devil Canyon PP afterbays tentatively scheduled for late April
• Investigate treatment options – NPDES permit application
  - MWD evaluating Santa Ana Pipeline treatment options

Mussel Control Options

• Chemical treatments (NPDES permit may be needed)
  - Sodium hypochlorite
  - Copper sulfate (EarthTec QZ)
  - Zequanox
• Manual removal
  - Pressure washing
  - Scraping
  - “Pigging” of pipes
• Drawdown/dewatering and desiccation
• Creating anoxic conditions
  - Lake hypolimnion
  - Within pipes
• Anti-fouling coatings
Questions?

Contact: Tanya Veldhuizen
Tanya.Veldhuizen@water.ca.gov
Agenda Item 8

SWC Board Update
Oroville Spillway Incident Update
April 20, 2017

Basic Statistics (as of April 17, 2017)
- Lake Elevation: 862.93'
- Inflow: 28,224 cfs
- Spillway Flow: 35,000 cfs
- Hyatt Flow: 0 cfs
- Diversion Pool: 223.79'
- Hyatt Tailrace: 227.32'
- Release to River at Fish Barrier: 35,000 cfs
- Release from Afterbay River Outlet: 0 cfs
- Total River Flow: 33,500 cfs
- Cubic yards of material removed from the debris pile to date: 1.6 Million Cubic Yards

Significant Events

March 31: DWR released bid packages (with 60% design) to four pre-qualified contractors for the main portions of the restoration. Pre-bid walk conducted.

April 2: The Federal government approves $274 million for the Oroville spillway, an estimate provided by the Department of Water Resources, for emergency response costs from Feb. 7 though the end of May (recovery). The money targets stabilizing the emergency and main spillways, as well as debris removal and work on the downed Hyatt Powerplant. This does not cover any expenses related to repair.

April 6: DWR briefing – releasing two overview documents: (1) “Oroville Spillway Recovery: Plans Under Design” which describes recovery objectives/timelines and preliminary design concepts; and (2) “Oroville Spillway Oversight and Investigation” which describes entities involved with design, regulatory oversight, and forensic team investigation (documents attached).

April 6: Governor Brown signs Executive Order B-39-17 (attached) which suspends some public resources code and regulations in order “to expedite response and recovery of the gated spillway, emergency spillway and related infrastructure, debris removal and disposal, and prevention or restoration of impacts to fish and wildlife resources or related facilities resulting from the response and recovery activities,…” (document attached).

April 14: Due to a steady increase in the reservoir elevation (up to ~836’), releases thru the gated, flood control spillway resumed (up to steady rate of 35,000 cfs) and still continue.

April 15: Opening of 3 bids received:
- Kiewit Infrastructure West Co: $275,443,850
- Barnard Ames JV: $276,965,690
- Oroville Dam Constructors: $344,129,100

April 17: DWR awards contract to Kiewit.
Other Noteworthy Items

- March 10, 2017 DWR internal memo from Acting Deputy Director Mark Andersen documenting Oroville Dam spillways emergency, the financial steps taken (including a distribution of a RFP in increase DWR’s commercial paper program), and authorizing the emergency response and recovery effort. (document attached)

- March 9, 2017 RFP from DWR for Water Revenue Commercial Paper Notes. Request is for $800M total, but that will be broken down into two separate programs: (1) $300M for regular/planned O&M activities for the SWP not related to Oroville emergency; and (2) $500M for the Oroville Spillway recovery and repair effort. (document attached). The RFP generated extensive response, and the new CP line will open on April 21, 2017.

- DWR will be hosting seven public meetings to update communities around the region about the ongoing Oroville spillway recovery effort. The meetings will provide opportunities for members of the public to ask questions and hear from DWR leadership and local partners about the Oroville spillway recovery and repair effort. Each public meeting will begin with a one-hour, informal information session, followed by a two-hour presentation/Q&A session.

  1. Gridley, April 27, 5:30pm-8:30pm. Butte County Fairgrounds, 199 E Hazel Way, Butte Hall, Gridley.
  2. Oroville, May 2, 5:30pm-8:30pm. Oroville Municipal Auditorium, 1200 Myers St, Oroville.
  3. Marysville, May 3, 5:30pm-8:30pm. CalTrans District 3, 703 B St, Marysville.
  4. Oroville, May 4, 5:30pm-8:30pm. Church of the Nazarene, 2238, Monte Vista Ave, Oroville.
  5. Yuba City, May 9, 5:30pm-8:30pm. Yuba Sutter Fairgrounds. 442 Franklin Ave, Yuba City.
  6. Chico, May 11, 5:30pm-8:30pm. Chico Masonic Family Center, 1110 W East Ave, Chico.
  7. Sacramento, May 15, 1:30pm-4:30pm. Tsakopoulos Library Galleria, 828 I St, Sacramento.
Recovery Plan Overview

Since the damage to the flood control spillway at Lake Oroville became apparent on February 7, the primary objectives of the Department of Water Resources (DWR) have been and continue to be 1) ensuring public safety and 2) ensuring the integrity of the dam and its associated structures. DWR has performed constant inspections and is regularly evaluating changing conditions such as the weather and the reservoir water elevation. DWR will continue adjusting plans and operations based on the most recent information. This includes continued use of the Hyatt Powerplant and occasional use of the gated flood control spillway to release reservoir inflow until DWR can be confident the structure is not needed during the late spring or summer months.

The objective for the recovery is to get systems in place by November 1 that can safely pass whatever Mother Nature throws at the Feather River watershed and Lake Oroville next winter. DWR will be working non-stop with its partner agencies to meet that objective.

The objective of the recovery project is to return both the gated flood control and emergency spillways to original design capacity of passing the possible maximum flood at Lake Oroville. The complete recovery or replacement of both damaged structures will need to be done in multiple phases due to the enormity of the project and time.
limitations of the construction season. The plan is to restore the gated flood control spillway to a capacity almost twice its highest historical outflow in order to help prevent use of the emergency spillway. The proposed design will allow approximately 270,000 cubic feet per second (cfs) through the gated flood control spillway, well above its historical maximum flow of 160,000 cfs.

Since there is still uncertainty in the spring weather, and until construction schedules can be confidently determined, DWR will pursue more than one design alternative. A design and contingency design have been chosen for the gated flood control spillway. These approaches will be complementary, so that Lake Oroville can be managed safely next winter no matter what the weather brings. If DWR is hit with a delay, the contingency designs will meet the objective of passing 270,000 cfs, but further work would still be required in future construction season(s). The emergency spillway recovery design alternatives will allow construction work to continue beyond November 1.

All of the alternative designs take into account long-term solutions. “No regrets” work like road construction and slope stabilization in and around future work areas will be done regardless of the spillway recovery design decisions.

Recovery Projects Under Design

**Gated Flood Control Spillway: Upper Chute Area**

The current recovery plan is to remove and replace portions of the upper, intact part of the gated flood control spillway. This includes replacing the drains, slabs and walls as necessary, and could require removal of minimal to moderate amounts of foundation rock to ensure the new deck or slab is placed on adequate foundation. The design will be completed to meet modern standards and be approved by the regulatory agencies.

The contingency schedule plan is to replace as much of the spillway slab in the upper section as possible in one season and provide additional repairs and/or protective measures to any remaining slabs or walls. Protective measures may include rock bolts and anchors to increase spillway reliability and meet the objective of passing 270,000 cfs.
Gated Spillway: Potential Remedial Measures for Upper Chute Area
Replace as much of the Upper Chute as possible by November 1, 2017 with modern, robust design. Anchor any remaining slabs and walls until replacement during next construction season.
Gated Flood Control Spillway: Lower Chute Area
The damaged spillway structure downstream of the severely eroded area will be demolished and replaced, including reinforcement of adjacent slopes. The spillway structure in this area will be constructed to meet modern standards. The exact plan will depend upon the rate of construction progress this summer. Decision points within the schedule will dictate which plan moves forward.

The current chosen plan is to return the lower part of the gated flood control spillway to the geometry that existed before the incident. This would involve placing concrete and roller compacted concrete (RCC) in areas where severe erosion has occurred to allow construction of a reinforced concrete spillway stronger than existed before the incident and designed to meet modern standards.

RCC is commonly used in dam construction, as it can be placed much more quickly than conventional concrete. RCC is a drier concrete mix and is placed using large compacting equipment.

The contingency plan will be to buttress the end of the damaged upper chute spillway with roller compacted concrete and reinforce a plunge pool in the eroded area. Areas that are deemed safe for continued use through next winter will be leveraged and reinforced, such as the left gully, so that more robust permanent features can be built later. If this option is pursued, final construction on the remaining unfinished portions would be completed in the summer of 2018.
Gated Spillway Remediation Concepts: Lower Chute Area

The following graphic provides a plan view of both the upper and lower chute portions of the gated flood control spillway.

Upper Chute ~ 1,600 Feet

Lower Chute ~ 1,400 Feet

Stabilization or Reconstruction

Remove and -OR- Repair
Replace In-Place

Partial to Complete Roller-Compacted Concrete Backfill of Eroded Rock

Note
Lower Chute has two concepts: temporary stabilization by November 1, 2017 or permanent reconstruction by November 1, 2017.
Emergency Spillway

All efforts are being made to allow 100 percent of next year's flood flows to pass through the gated flood control spillway and to prevent future flows down the emergency spillway.

The work already completed on the emergency spillway is considered temporary and will be improved.

The current design being pursued for the emergency spillway:

- Place a concrete wall beneath the ground and deep into rock downstream of the existing weir. This type of construction is common in dam engineering and is usually referred to as a cutoff wall to prevent "head-cutting" erosion at the base of the concrete weir if the emergency spillway had to be used.

- Place RCC against the existing weir. This is common to dam engineering and normally referred to as buttressing the dam to ensure the structural integrity of the weir under flood flows and future possible seismic loading conditions.

- Place RCC downstream of the weir to convey flood flows downstream. This is commonly referred to as an RCC apron used to prevent erosion of the bedrock.

The construction schedule has been developed to ensure that the concrete cutoff wall, the most critical component, will be completed by November 1.

Construction of the remaining components will start in the summer of 2017 and can continue past November 1 if necessary, as all flows will be conveyed through the Hyatt Powerplant and, if required, through the gated flood control spillway.

Emergency Spillway Remediation Concepts

The following graphic provides a profile view of an emergency spillway recovery concept including the RCC buttress and splash pad and the downstream cutoff wall.
Recovery Schedule
DWR already has issued a notice to proceed to its contractors to allow construction of certain “no regrets” preliminary projects that will be necessary regardless of the design plan ultimately implemented. These projects include:

- Construction of or improvements to access roads
- Development of construction staging areas
- Stabilization of slopes adjacent to damaged flood control spillway
- Design modeling for emergency spillway.

Major Construction Contract(s)
DWR has been moving fast to design and prepare for recovery construction activities this spring and summer. Bid documents which contain design details were released to qualified contractors on March 31 for the main portions of the restoration. A pre-bid job walk was conducted onsite and the bid deadline is April 12. Because sensitive design details are included in the contents of the bid documents, the bids are considered critical energy/electrical infrastructure information (CEII) and cannot be made public.

DWR expects to issue a notice to begin work to contractors on April 17 for the main portions of the recovery. Early work associated with this contract will include mobilization of the contractor to the staging and construction sites and other up-front work the contractor can do in anticipation of the major construction work within the spillway areas in the coming months.
Oroville Spillway
Oversight and Investigation

APRIL 6, 2017

Oversight of Design and Construction

Oversight of the design and construction of the recovery of the Oroville spillway structures is being conducted by several entities with specialized dam design and construction expertise. Both the Federal Energy Regulatory Commission (FERC) and California Division of Safety of Dams (DSOD) must approve all designs and will oversee and approve construction. During the emergency response, DSOD, FERC and the U.S. Army Corps of Engineers (USACOE) worked closely with the Department of Water Resources (DWR) as critical decisions were being made.

FERC: Any water power project and the construction, operation, maintenance, use, repair, or modification of any project works are subject to the inspection and the supervision of the Regional Engineer or any other authorized Commission representative. Since Oroville Dam has a hydroelectric facility, it falls under the regulation of FERC’s dam safety program. FERC staff review and comment on all aspects of the recovery work of the Oroville spillways.

DSOD: All dams within the jurisdiction of the state are subject to state supervision by the DSOD. DSOD reviews all aspects of the design and makes independent evaluations to ensure any alterations or repairs to dams result in a safe dam. Therefore, the recovery of the Oroville spillways is being reviewed and approved by DSOD.
BOC: A Board of Consultants (BOC) is required by California Water Code (Division 3, Part 1, Chapter 3, Section 6056) for modifications to any dam owned by DWR. In addition, FERC requires a Board of Consultants to review and comment on repairs to dams. Therefore, the recovery of the Oroville spillways is being reviewed by the BOC. As is typical for all repairs and new construction for dams regulated by FERC, a BOC is required and has been engaged for the emergency response and recovery of the Oroville Dam spillways.

The process for the Oroville BOC is the same as for any other dam project – except this Board of Consultants must work at an accelerated pace, in real time with repairs. DWR engineers have and will continue to present information to the BOC, then members of the BOC will comment on DWR preliminary considerations and offer direction prior to DWR making final decisions and furthering design details.

USACOE: The USACOE has a robust national dam safety program under which it operates and maintains approximately 700 dams nationwide and in Puerto Rico. USACE carries out its dam safety program to ensure projects deliver their intended benefits while reducing risks to the public. Through implementation of its dam safety program, USACE has built expertise and technical competencies across a broad range of disciplines for all aspects of dam safety projects. Given their strong technical capabilities and expertise, USACE and DWR have entered into an agreement which allows USACE to support recovery planning for the Oroville spillway structures. USACE engineers and geologists have provided advice and support of spillway operations, short term stabilization measures, direct support of drilling rigs for geology investigations, and expert review and advice on all design aspects.

Forensic Team Investigation:
What Happened to the Gated Flood Control Spillway?

The BOC described above should not be confused with the forensic analysis team, which has been engaged to determine the cause of the Oroville spillway incident. To provide for an independent review, DWR contacted the Association of State Dams Safety Officials and the United States Society of Dams to propose a team that can conduct a forensic evaluation.

The forensic team has been named and has begun their investigation. They are expected to make a site visit on April 13.
The forensic team is charged with determining the root cause of the spillway incident, as well as any other contributing causes. Their findings will be shared with the BOC as it advises DWR on work to recover spillway function. The recovery project may benefit from the forensic team’s analysis. Therefore, their findings may be incorporated into the recovery plans.
WHEREAS during January and February of 2017, atmospheric river storm systems struck California, bringing massive amounts of precipitation; and

WHEREAS I proclaimed states of emergency on January 23, 2017 and March 7, 2017, for much of California resulting from these storms; and

WHEREAS on February 12, 2017, I proclaimed a State of Emergency to exist as a result of damage to the Lake Oroville Dam gated spillway, as well as erosion to and a potential of failure of its emergency spillway, causing local officials to evacuate hundreds of thousands of people from the Counties of Butte, Sutter, and Yuba; and

WHEREAS state officials and employees have worked tirelessly to make repairs to the emergency spillway as well as the gated spillway, both of which experienced damage as a result of the significant amount of water being released from Lake Oroville Dam due to the extensive precipitation received this winter; and

WHEREAS Lake Oroville Dam is the largest state-operated dam in California and regulates outflow from Lake Oroville to provide a portion of the water to 25 million Californians and hundreds of thousands of acres of irrigated farmland, significant hydroelectricity production, and freshwater releases to control salinity intrusion in the Sacramento-San Joaquin Delta and for fish and wildlife protection and other beneficial uses; and

WHEREAS operational spillways are crucial to the safe operation of Lake Oroville Dam for these purposes given the range of anticipated hydrological conditions in any given year; and

WHEREAS the gated spillway is currently severely impaired and must be significantly repaired or replaced; the emergency spillway likewise requires immediate repairs and supplemental work, and this work must be undertaken immediately so that the spillways are operational by the beginning of the wet season for the 2017-2018 water year; and

WHEREAS state officials have been sensitive to tribal, wildlife, and environmental concerns, by conducting fish rescues and implementing protective measures for Bald Eagles, working with a tribal monitor and engaging in project-specific cultural site assessments, and implementing stormwater management and dust mitigation plans; and

WHEREAS snowpack is at 164% of average statewide; and

WHEREAS runoff from the substantial snowpack will create the risk of flooding through spring and early summer throughout much of the state; and

WHEREAS under section 8571 of the California Government Code, I find that strict compliance with various statutes and regulations specified in this order would prevent, hinder, or delay the mitigation of the damaged spillways at Lake Oroville Dam and the effects of the significant precipitation received during the January and February storms.

NOW, THEREFORE, I, EDMUND G. BROWN JR., Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, in particular Government Code sections 8567 and 8571 of the California Government Code, do hereby issue this Executive Order, effective immediately.
IT IS HEREBY ORDERED THAT:

1. The orders and provisions contained in my January 23, 2017 Proclamation, my February 12, 2017 Proclamation, and my March 7, 2017 Proclamation remain in full force and effect except as modified herein.

2. All state agencies are directed to assist the Department of Water Resources (Department) and the State Water Resources Control Board (Water Board) as requested and prioritize any actions required for such assistance.

3. For purposes of carrying out the directives in this Executive Order or for any other actions necessary to expedite response and recovery of the gated spillway, emergency spillway and related infrastructure, debris removal and disposal, and prevention or restoration of impacts to fish and wildlife resources or related facilities resulting from the response and recovery activities, Division 13 (commencing with section 21000) of the Public Resources Code and regulations adopted pursuant to that Division are hereby suspended. This suspension applies to any actions taken by state agencies in furtherance of this Executive Order, as well as to any necessary permits or approvals required to complete these actions. Additionally, this suspension includes projects that will remove, destroy, or significantly alter an historical resource when that resource represents an imminent threat to the public of bodily harm or of damage to adjacent property or when the project has received a determination by the State Office of Historic Preservation pursuant to sections 5023-5028 of the Public Resources Code.

IMMEDIATE REPAIRS TO THE LAKE OROVILLE DAM

4. The Department shall exercise its full authority, including but not limited to Water Code sections 128, to take all actions necessary for the response, recovery, and rehabilitation of the gated spillway, emergency spillway, and related infrastructure; debris removal and disposal; and to prevent impacts to, and provide preservation of, fish and wildlife resources and associated infrastructure relating to the response and recovery activities. Water Code section 11465 is suspended to the extent necessary for the actions to be implemented.

5. To streamline the recovery of the dam and its power-producing facilities, Chapter 5 (commencing with section 25400) of Division 15 of the Public Resources Code is suspended.

6. To the extent recovery requires surface mining as that term is defined in Chapter 9 (commencing with section 2710) of Division 2 of the Public Resources Code, that Chapter is suspended.

7. For actions called for in this Proclamation, the Central Valley Flood Protection Board Executive Officer shall issue any applicable permits as necessary to expedite urgent actions. The requirements of California Code of Regulations, title 23, section 17 that an emergency permit be issued only during flood season, and that an application must be submitted within 30 days, are waived.

8. The Central Valley Flood Protection Board Executive Officer, on behalf of the State of California, shall request that the Secretary of the Army, on the recommendation of the Chief of Engineers of the Army Corps of Engineers, grant any permission required
pursuant to section 14 of the Rivers and Harbors Act of 1899, as codified in section 408 of title 33 of the United States Code.

9. The Department is directed to work cooperatively with landowners or occupants to enter into voluntary access or other agreements for the purposes of planning and installing the spillways and related infrastructure at or near Oroville Dam to the extent necessary to accommodate access to required locations. Where the Department is unable to reach an agreement with landowners or occupants using the Department’s best efforts, the Department is authorized to act under Government Code section 8572 and Water Code section 11590 is suspended.

10. The provisions of California Penal Code section 396 prohibiting price gouging in times of emergency are hereby reinstated as of the date of this Order. The 30-day time period limitation under subdivision (b) of section 396 is hereby waived. For the purposes of calculating the price differential, the price of goods or services shall be compared to the price in effect as of the date of this Order.

11. The Department, the Department of Fish and Wildlife, the California Department of Transportation, and the Governor’s Office of Emergency Services shall ensure adequate state staffing to expedite disaster response and recovery efforts, including work to prevent, minimize, or repair damage to habitat, fisheries, state-run fish hatcheries, or wildlife areas. For the departments listed in this directive, and consistent with applicable federal law, work hour limitations for retired annuitants, permanent and intermittent personnel, and any overtime restrictions for state management and senior supervisors, are suspended. Furthermore, Government Code sections 21220, 21224(a), and 7522.56(b), (d), (f), and (g), and the time limitations in Government Code section 19888.1 and California Code of Regulations, title 2, sections 300-303 are suspended. The Director of the California Department of Human Resources must be notified of any individual employed pursuant to these waivers.

12. In order to minimize environmental and other impacts to the local community and environment, the Department shall closely coordinate and share data and information with the Butte County Sheriff’s Office and Butte County Air Quality Management District, and also with relevant state and federal agencies, including the Department of Fish and Wildlife, the State Water Resources Control Board, the Air Resources Board, the Central Valley Flood Protection Board, and the Federal Energy Regulatory Commission.

13. The Department, in coordination with the Department of Parks and Recreation, will develop plans for additional access points to Lake Oroville for recreational use, and shall work with the Federal Energy Regulatory Commission to implement those plans as expeditiously as possible.

FLOOD CONTROL MEASURES

14. To increase available capacity in river and flood control channels statewide and to utilize anticipated high water flows to recharge local groundwater while minimizing flooding risks, the State Water Resources Control Board and California Regional Water Quality Control Boards shall prioritize temporary water right permits, water quality certifications, waste discharge requirements, and conditional waivers of waste discharge requirements to accelerate approvals for projects throughout the state that enhance the ability of a local
or state agency to capture high runoff events for local storage or recharge, consistent with water rights priorities and protections for fish and wildlife.

This Executive Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

I FURTHER DIRECT that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 6th day of April 2017.

EDMUND G. BROWN JR.
Governor of California

ATTEST:

ALEX PADILLA
Secretary of State
State Water Contractors Board Meeting
April 20, 2017

Data compiled on: 4/19/2017
San Joaquin Precipitation: 5-Station Index, April 19, 2017

Total Water Year Precipitation

Oct 1  Nov 1  Dec 1  Jan 1  Feb 1  Mar 1  Apr 1  May 1  Jun 1  Jul 1  Aug 1  Sep 1  Oct 1

Cumulative Daily/Monthly Precipitation (inches)

Average (1961-2010) 40.8

1976-1977 (2nd driest & driest thru Aug)

1997-1998 65.2

1982-1983 (wettest) 77.4

Current Daily Precip: 71.0

Percent of Average for this Date: 198%

CVT - Calaveras Big Trees
HTH - Hetch Hetchy
YSV - Yosemite Headquarters
NFR - North Fork RS
HNT - Huntington Lake
CURRENT RESERVOIR CONDITIONS

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Capacity (TAF)</th>
<th>% of Capacity</th>
<th>% of Historical Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trinity Lake</td>
<td>95%</td>
<td>116%</td>
<td></td>
</tr>
<tr>
<td>Lake Shasta</td>
<td>93%</td>
<td>109%</td>
<td></td>
</tr>
<tr>
<td>Lake Oroville</td>
<td>77%</td>
<td>96%</td>
<td></td>
</tr>
<tr>
<td>Folsom Lake</td>
<td>76%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>New Melones Lake</td>
<td>83%</td>
<td>133%</td>
<td></td>
</tr>
<tr>
<td>San Luis Reservoir</td>
<td>97%</td>
<td>109%</td>
<td></td>
</tr>
<tr>
<td>Millerton Lake</td>
<td>51%</td>
<td>72%</td>
<td></td>
</tr>
<tr>
<td>Lake Perris</td>
<td>44%</td>
<td>52%</td>
<td></td>
</tr>
<tr>
<td>Castaic Lake</td>
<td>92%</td>
<td>102%</td>
<td></td>
</tr>
<tr>
<td>Lake McClure</td>
<td>65%</td>
<td>111%</td>
<td></td>
</tr>
<tr>
<td>Don Pedro Reservoir</td>
<td>82%</td>
<td>111%</td>
<td></td>
</tr>
<tr>
<td>Pine Flat Reservoir</td>
<td>50%</td>
<td>82%</td>
<td></td>
</tr>
<tr>
<td>DATE</td>
<td>PACKET PAGE</td>
<td>MEDIA SOURCE</td>
<td>ARTICLE</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
<td>---------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>04/01/17</td>
<td>1</td>
<td>THE DESERT SUN</td>
<td>Water Agencies Fighting For Continued Resource Sharing</td>
</tr>
<tr>
<td>04/01/17</td>
<td>2-4</td>
<td>THE DESERT SUN</td>
<td>Quenching Our Thirst Beneath The Desert</td>
</tr>
<tr>
<td>04/05/17</td>
<td>5-6</td>
<td>THE DESERT SUN</td>
<td>Policy Change May Aid Project</td>
</tr>
<tr>
<td>04/05/17</td>
<td>7</td>
<td>PRESS ENTERPRISE</td>
<td>Cadiz Project Gets Some Big Help</td>
</tr>
<tr>
<td>04/05/17</td>
<td>8-9</td>
<td>PRESS ENTERPRISE</td>
<td>Statewide Savings Soars To 25.1%</td>
</tr>
<tr>
<td>04/05/17</td>
<td>10-11</td>
<td>LOS ANGELES TIMES</td>
<td>Trump Clears Way For Desert Water Project</td>
</tr>
<tr>
<td>04/07/17</td>
<td>12-13</td>
<td>THE DESERT SUN</td>
<td>California Governor Lifts Drought Emergency</td>
</tr>
<tr>
<td>04/07/17</td>
<td>14</td>
<td>PRESS ENTERPRISE</td>
<td>Gov. Brown Declares California's Drought Emergency Is Over</td>
</tr>
<tr>
<td>04/08/17</td>
<td>15-16</td>
<td>PRESS ENTERPRISE</td>
<td>The Drought Is Over</td>
</tr>
<tr>
<td>04/10/17</td>
<td>17-18</td>
<td>PRESS ENTERPRISE</td>
<td>Suit Filed Over Diversion Of River Water</td>
</tr>
<tr>
<td>04/12/17</td>
<td>19</td>
<td>PRESS ENTERPRISE</td>
<td>Water Flowing To Long Deprived Community At Wildomar-Manifee Border</td>
</tr>
<tr>
<td>04/13/17</td>
<td>20-21</td>
<td>THE DESERT SUN</td>
<td>Surveyors Put Boots On The Snow For Readings</td>
</tr>
<tr>
<td>04/17/17</td>
<td>22-24</td>
<td>LOS ANGELES TIMES</td>
<td>Pouring It On</td>
</tr>
<tr>
<td>04/18/17</td>
<td>25</td>
<td>THE PUBLIC RECORD</td>
<td>CVWD Supports Governor’s Lifting Of Drought Emergency</td>
</tr>
<tr>
<td>04/20/17</td>
<td>26-27</td>
<td>THE DESERT SUN</td>
<td>Palm Springs Residents Can Now Water Their Lawns At Any Time</td>
</tr>
<tr>
<td>04/21/17</td>
<td>28</td>
<td>PRESS ENTERPRISE</td>
<td>Water Deal Could Net City Utility $100M</td>
</tr>
<tr>
<td>04/21/17</td>
<td>29</td>
<td>KMIR NEWS</td>
<td>Indio Water Authority Lifts Drought Penalties</td>
</tr>
</tbody>
</table>
Water agencies fighting for continued resource sharing

James Cioffi and John Powell Jr., Special to The Desert, April 1, 2017

The public water agencies that serve half a million people and thousands of businesses throughout the Coachella Valley have an essential job – ensuring the public has safe and reliable water. It is because of the importance of this resource and our responsibility to protect it that Coachella Valley Water District (CVWD) and Desert Water Agency (DWA) have decided to ask the Supreme Court to review the 9th Circuit’s recent decision that the Agua Caliente Band of Cahuilla Indians has a reserved right to groundwater.

At stake in the case is control over our region’s groundwater.

In 2013, the Agua Caliente filed a lawsuit seeking unprecedented rights to groundwater in the Coachella Valley, superseding all other water users. While CVWD and DWA currently pump, test, treat and serve this water to the community, we don’t own it. We are the stewards of water for our communities. Water is the most precious resource we have in this desert and the ability to flourish here depends on it.

We see the Agua Caliente as a key partner. For years, CVWD and DWA have delivered water to the tribe's hotels, casinos and golf courses. We also serve thousands of homes and businesses built on tribal land. We believe the best outcome for the groundwater basin is for it to remain a shared public resource. The tribe has not said how much water they are seeking rights to or how they would use that water.

The court case is broken down into three phases. The first phase, which we are in now, will determine if the tribe has a reserved (or exclusive) right. If the Supreme Court determines that there is no reserved right, the case would be over and water rights would continue being shared in our community. If the Supreme Court does not weigh in or agrees with the 9th Circuit, we would have to move into the next phases of trial, which will take years.

Our Supreme Court appeal seeks to avoid the uncertainty that such a delay would cause the businesses and quality of life in our valley.

The second phase addresses water quality and storage. The Agua Caliente propose that CVWD and DWA stop replenishing the aquifer with untreated Colorado River water. Treating the water would unnecessarily drive the public’s water rates to exorbitant and unaffordable levels. Colorado River water, our imported water supply, is used by 33 million people as a drinking water source. The water that CVWD and DWA serve is some of the best in the nation and complies with state and federal standards.

It is in the third and final phase of the trial when the court would determine how much water the tribe has rights to. If the decision gives the tribe an exclusive right to a significant share of the groundwater basin, that could have serious impacts on how much the public pays for water. It could also affect future community growth.

The momentous and irreversible change these decisions could have on our valley spurred CVWD and DWA to ask the Supreme Court to review the 9th Circuit’s decision. We have laid much of the groundwork necessary to request the review and feel that we’re well positioned for the court to take up the case.

This decision has the potential to change the Coachella Valley for generations to come. CVWD and DWA are governed by representatives of the people. We, along with our fellow board members, are here to make decisions related to the management of the groundwater basin and delivery of high quality drinking water and irrigation water in the best interest of the public. We have open, public meetings twice a month to gather input guiding decisions like this. We also share a wealth of information including our water management plans on our websites, www.cvwd.org and www.dwa.org. This is one of the biggest issues that our agencies have ever faced.

James Cioffi is the president of the Desert Water Agency Board of Directors. He can be reached at jcioffi@dwa.org. John Powell, Jr. is president of the Coachella Valley Water District Board of Directors. He can be reached at jpowell@cvwd.org.
Quenching our thirst beneath the desert

A $22 million project aims to reverse groundwater declines in Palm Desert

Ian James, April 1, 2017

Over decades, as subdivisions, golf courses and farms have expanded across the desert, the aquifer has declined beneath much of the Coachella Valley. Water agencies have combated the problem by importing water from the Colorado River to replenish the aquifer at three sites: near Palm Springs, near Desert Hot Springs and in south La Quinta.

The largest declines in the aquifer have occurred away from those groundwater replenishment ponds in the middle of the valley. In parts of Palm Desert, Indian Wells and Rancho Mirage, records show water levels in wells have declined by 90-100 feet or more since the 1950s and 60s.

Now the Coachella Valley Water District is moving ahead with a plan to recharge the aquifer in that central zone by routing water from the Colorado River to a plot of land next to a sewage treatment plant in Palm Desert.

The water district's board voted this week to hire the company GEI Consultants, Inc., at a cost of about $659,000, to design the new groundwater replenishment facility.

Construction is scheduled to begin next year. The water district estimates the project, including more than $9.8 million for the groundwater replenishment infrastructure plus other upgrades to the sewage treatment plant, will cost about $22 million.

"We have a good portion of the infrastructure already in place to deliver that water to Cook Street, and we already own the land," said John Powell, Jr., president of the CVWD board. "So we're able to do a really nice direct recharge project there and at relatively low cost. And it addresses the overdraft in that particular area in a very direct way."

Powell said the project also will put to use the increasing amounts of water from the Colorado River that the district is set to receive in the coming years under a 2003 deal known as the Quantification Settlement Agreement, which is transferring water from Imperial Valley farmland to growing cities in the Coachella Valley and San Diego County.

The facility will be designed to handle up to 25,000 acre-feet of water per year, which the district says is roughly the amount of water used by about 50,000 homes. An additional 18,000 acre-feet of water from the Colorado River is scheduled to be delivered to the valley starting in 2013 under the water transfer deal, and the area is due to receive more in subsequent years.

"If we can get some water into it in 2018, that's going to be a pretty quick project. We're hopeful," Powell said. "We're going as fast as we can."

Managers of the water district have for years expressed interest in building a facility to replenish the aquifer in the middle of the valley. They settled on using land located between their Palm Desert offices and the Water Reclamation Plant No. 10.

The project will involve repurposing existing ponds on 20 acres next to the existing sewage treatment plant and installing new piping. Additional ponds will be built within the Whitewater River stormwater channel between Cook Street and Fred Waring Drive.
Other work will include an extension of the Mid-Valley Pipeline, which carries water from the Colorado River to the area, and improvements to a pump station.

In an effort to reduce groundwater pumping and prevent aquifer levels from declining further, the water district has also been using a mix of recycled water and Colorado River water to supply some golf courses. Powell said CVWD plans to continue hooking up more golf courses to wean them off their wells.

The aquifer's levels have risen significantly near the groundwater recharge ponds in La Quinta since the facility began receiving deliveries of water in 2009. Groundwater levels have also risen in recent years near the groundwater replenishment ponds in the desert near Palm Springs, where two water agencies have been sending imported water since 1973.

The new facility should similarly help water levels in the Palm Desert area, and it will be interesting to see how the water spreads underground, said Brian F. Thomas, a hydrologist and professor at the University of Pittsburgh who has studied groundwater in the Coachella Valley.

"This will definitely help regions that were losing before," Thomas said. "This is just one piece of a larger puzzle. And this is a good piece, but it is not the thing that is going to solve the problem.”

Thomas said the future reliability of the Colorado River should be a concern because the river is already overallocated and is facing additional pressures due to growing population and climate change. He said people shouldn't ease up on conservation because they see more water flowing to Palm Desert.

"Is that going to mean that they can withdraw 25,000 acrefeet more per year from this aquifer? I think that would be the human tendency to say, 'Well, this water is now available to us, so we can pump more,' " Thomas said.

"I just worry that it's like putting money in the bank," Thomas said. "If it's free money, are you going to save it or are you going to spend it? And that is going to make the difference in terms of what kind of effect this has in 10 to 20 years.”

After more than five years of severe drought, California has had one of its wettest winters on record. As of this week, the snowpack across the Sierra Nevada was measured at 164 percent of average. Reservoir levels have rebounded across the state.

Many areas of California still face daunting long-term challenges in grappling with overpumping and preventing depleted aquifers from declining further. The state's Sustainable Groundwater Management Act, which Gov. Jerry Brown signed in 2014, focuses on 127 groundwater basins deemed to be "high" or "medium" priority and calls for local agencies to adopt plans for sustainable water use.

In the Coachella Valley, state regulators have listed three aquifer sub-basins – Indio, Mission Creek and San Gorgonio Pass – as being "medium" priority. A fourth groundwater subbasin, Desert Hot Springs, is classified by the state as being a lower priority.

Several local agencies, among them the Coachella Valley Water District and Desert Water Agency, have filed notices with the state to begin the process of becoming the designated "groundwater sustainability agencies" in areas where they supply water.

Those efforts could be complicated by the ongoing legal fight over water rights involving the Agua Caliente Band of Cahuilla Indians and the area's two largest water districts. After a federal appeals court ruled the tribe holds a federally established right to groundwater beneath its reservation, CVWD and DWA announced this week that they will appeal to the Supreme Court.

The Agua Caliente tribe sued the two water agencies in May 2013, seeking to assert rights to groundwater and gain greater influence in decisions about how the aquifer is managed. The tribe has accused the
agencies of imperiling the desert aquifer by allowing its levels to decline over the years and by using saltier, less pure Colorado River water to offset the amounts drawn out.

The water agencies have defended their efforts to manage the supply of groundwater and have insisted that water from the Colorado River meets all drinking water standards.

CVWD's plan to start replenishing the aquifer in Palm Desert comes amid other signs that the district is making progress in reducing declines in groundwater levels and fighting a related problem: sinking ground.

Michelle Sneed, a hydrologist with the U.S. Geological Survey, has been studying the problem of land subsidence for years, and she said this week that her latest research in the Coachella Valley shows major improvement.

The last USGS study of land subsidence in the area, published in 2014, found that the ground sank by between nine inches and 2 feet from 1995 to 2010 in parts of Indian Wells, La Quinta and Palm Desert where groundwater levels were declining. Sinking ground has caused damage in other parts of the Coachella Valley in the past few decades, cracking the foundations of some homes and damaging swimming pools, roads and other infrastructure.

But Sneed said the groundwater replenishment ponds in La Quinta have made a big difference since 2009 in boosting aquifer levels and preventing the ground from sinking.

Since 2010, she said, groundwater levels have either stabilized or risen in many parts of the valley, in large part due to replenishment of the aquifer at percolation ponds.

"Every well I've looked at, this is the story: Either water levels are coming back up or the water level declines have slowed down," said Sneed, who spoke during a water forum Tuesday at the University of California, Riverside's Palm Desert campus.

Sneed, whose latest research has yet to be published, said that while the ground has continued sinking in parts of the valley, the ground level has stabilized in many areas. And in some places, she said, the land surface has risen as imported water has seeped underground to replenish the aquifer.

Sneed has also documented how the ground is rapidly sinking in parts of the San Joaquin Valley, and she said she rarely has an opportunity to present good news about land subsidence.

"The reason that this has changed is because of percolation ponds. This is called managed aquifer recharge," Sneed said. "This is what we need to do, and this is what's happening here, and it's so cool that it's actually making a difference in the data. I just can't tell you how happy that makes me."
PUBLIC LAND

Policy change may aid project

_Cadiz Inc. wants to sell groundwater from a Mojave Desert aquifer_

Ian James, April 5, 2017

A long-running political struggle over a company’s plan to sell water from a Mojave Desert aquifer has taken a new turn with the Trump administration announcing a policy change that could facilitate the controversial water project.

The Department of the Interior announced last week that the Bureau of Land Management is scrapping guidelines that detail how federal officials are supposed evaluate the uses of public lands running alongside railroads. Those guidelines, laid out in a 2014 memorandum, specified that the office would evaluate on a case-by-case basis whether proposed uses of lands granted to railroad companies “derive from or further a railroad purpose.”

Rescinding the guidelines could remove a key hurdle for Cadiz Inc., which has plans to pump groundwater in the desert and build a 43-mile pipeline alongside a railroad line to send the water to Southern California cities.

Based on those federal guidelines, the Bureau of Land Management under the Obama administration had handed the company a significant setback. In October 2015, James Kenna, who at the time was the bureau’s state director, wrote in a letter that Cadiz’s plan for building the pipeline wasn’t within the rights originally granted to the Arizona and California Railroad under an 1875 law.

Kenna said that for the proposal to proceed, it would “require BLM authorization for a right-of-way.”

The Trump administration rescinded the guidelines following a request by 18 members of Congress. In their March 1 letter to Interior Secretary Ryan Zinke, the lawmakers — including Reps. Tom McClintock (R-Elk Grove), Paul Cook (R-Apple Valley), Tony Cárdenas (D-Los Angeles), Duncan Hunter (R-Alpine), Jim Costa (D-Fresno) — said that the Cadiz project would provide needed water and generate jobs and that the BLM had wrongly slowed it down. “We believe that a fair evaluation of the project would have led to a very different conclusion: that the project is indeed within the scope of the right-of-way authority and requires no further approval from BLM,” the lawmakers said in the letter. They called the BLM’s standard arbitrary and said it “represents a gross expansion of BLM’s authority at a time when BLM struggles to meet its primary mission objectives.”

The Los Angeles-based company owns 34,000 acres in the desert along Route 66 in the Cadiz and Fenner valleys, about 75 miles northeast of Palm Springs. It has proposed to pump as much as 50,000 acre-feet of groundwater each year for the next 50 years and sell the water to agencies in Southern California.

The company’s claim that its pumping wouldn’t harm the environment is hotly disputed by conservation groups and other opponents. Sen. Dianne Feinstein said Tuesday that she will “fight this latest effort to push the Cadiz water project through without the proper environmental review.”

“The Trump administration has once again put corporate profits ahead of the public’s interest,” Feinstein said in statement. “In a blatant attempt to muscle the Cadiz water project through, the administration is completely undermining federal oversight of railroad rights-of-way. This is clearly just an effort to circumvent an environmental review that any project of this magnitude on federal land would normally undergo.” Feinstein said instead of allowing a proper environmental review, “the Trump administration wants to open the door for
a private company to exploit a natural desert aquifer and destroy pristine public land purely for profit." Scott Slater, Cadiz’s president and CEO, disagreed and said the project won’t cause “a single adverse environmental impact.” Slater said Feinstein “continues to cite discredited facts and outdated science to oppose a project which has widespread bipartisan and community support.” For years, Feinstein has been attaching riders to Interior Department appropriations bills blocking the government from spending funds on work related to the Cadiz project.

Conservation groups such as the Center for Biological Diversity and the National Parks Conservation Association have also opposed the project, saying if the company is allowed to draw down the aquifer, it would threaten natural springs and wildlife in surrounding areas.

The company’s property is close to the Mojave National Preserve and is surrounded by the newly created Mojave Trails National Monument.

Both sides in the dispute have enlisted researchers to study the environmental impacts and the natural rate of groundwater recharge, and they’ve come to different conclusions.

Last May, the company survived a legal fight when California’s 4th District Court of Appeal rejected several challenges and upheld earlier decisions backing a state environmental review.

Slater, who is a water lawyer, said he now hopes the Bureau of Land Management will take other steps that the 18 lawmakers requested in their letter, including rescinding Kenna’s 2015 letter and declaring that Cadiz’s proposed water pipeline is within the scope of permissible projects along the railroad.

“There is nobody saying anymore in the federal government that we’re not within the scope of the right-of-way,” Slater said.

While pursuing its plan to sell water, the company has been running its wells to irrigate nearly 2,000 acres of farmland, growing lemons, grapes, raisins and other crops.

Cadiz plans to build a 43-mile pipeline from its property to the Colorado River Aqueduct. It’s the latest iteration of a project that has been in the works for many years.

In 1997, Cadiz and the Metropolitan Water District of Southern California together proposed storing water from the Colorado River in the groundwater basin. Metropolitan eventually decided not to go forward with it, and the company later made revisions to the project and relaunched it in 2009.

Cadiz has since partnered with the Santa Margarita Water District in Orange County, which has a signed contract to buy some of the water.

San Bernardino County has also been involved. In 2012, county supervisors approved a plan that allows the company to extract more water than the natural rate of recharge while requiring monitoring and specifying pumping limits.

Cadiz has proposed a second phase later on that would involve “banking” imported water underground in the desert aquifer.

Ileene Anderson, the public lands deserts director for the Center for Biological Diversity, said in an email that the latest policy change is a problematic turn of events and “the Trump administration’s clear giveaway to corporate interests of one of the desert’s most precious resources — water, without any heed ... for the incredible public lands and resources that depend on it.”

Ian James writes about water and environmental issues for The Desert Sun. Email: ian.james@desertsun.com. Twitter: @TDSIanJames.
ENVIRONMENT

Cadiz project gets some big help

*Trump administration removes Obama-era obstacle to pumping water below Mojave Desert*

By David Danelski, April 5, 2017

The Trump administration has removed a major roadblock to plans by a Santa Monica company to pump ancient groundwater from below the Mojave Desert and sell it to urban areas of Southern California.

The federal Bureau of Land Management has rescinded a 2015 administrative finding that Cadiz Inc. needed to obtain a federal right of way permit and thus had to complete comprehensive environmental studies before it could build a water pipeline within 43 miles of railroad right of way owned by the Arizona & California Railroad.

The move follows a January decision by President Donald Trump’s transition team to put Cadiz on a list of priority infrastructure projects and a state appellate court’s rejection last year of a lawsuit filed by environmental groups challenging the project.

The $225 million Cadiz Valley Water Conservation, Recovery and Storage Project still needs approval from the powerful Metropolitan Water District to use the Colorado River Aqueduct to ferry the water to urban Southern California.

Cadiz company officials said in statement that they are pleased with the Trump administration’s decision. The statement said they have always believed “the BLM’s 2015 evaluation was contrary to law and policy.”

In 2008, Cadiz entered into a lease agreement with the railroad company to build a pipeline in between the wells it owns in the Mojave Desert area, west of Needles and south of I-40, to the Colorado River, using the railroad’s right of way over federal land.

From the river area, the water could be ferried to urban SoCal using the aqueduct and reservoir system operated by the Metropolitan Water District.

“Our discussions are continuing about what would be required before they can put water in the Colorado River Aqueduct,” said water district spokesman Bob Muir.

In 2002, the water district’s board voted down an earlier version of the Cadiz project that also needed to use the aqueduct.

The project is staunchly opposed by environmental and desert advocates, who say it would rob the desert of the water that plants and wildlife need to survive.

“Many of the springs and seeps are going to dry up because of groundwater extraction,” said Ileene Anderson, a Center for Biological Diversity biologist.

She is particularly concerned that the pumping would harm the Mojave National Preserve and recently created Mojave Trails National Preserve.

Sen. Dianne Feinstein, DCalif., said in a statement that the new administration was muscling through the project without proper reviews. Feinstein is an ardent desert supporter who authored the California Desert Protection Act that created the preserve and other protections more than 20 years ago.

“The Trump administration wants to open the door for a private company to exploit a natural desert aquifer and destroy pristine public land purely for profit,” her statement said.

“The administration is completely undermining federal oversight of railroad rights of way.”
Statewide savings soars to 25.1%

*February’s number is more than double last year’s. Local reservoirs are filling up, yet agencies say residents must keep conserving.*

By Steve Scauzillo, April 5, 2017

Record winter rainfall may have vanquished the state’s fiveyear drought, but that hasn’t stopped Californians from conserving water. California’s urban water conservation for the month of February was 25.1 percent, more than double the 11.9 percent savings in February 2016 and the lowest amount of daily water consumed per capita to date, according to the State Water Resources Control Board.

“Even with a banner year for winter precipitation, Californians have continued to practice sensible conservation, with a significant drop in water use in the South Coast,” said Felicia Marcus, chairwoman of the state water board, in a statement.

Though it has often lagged in the past, the South Coast hydrological region contributed to 60 percent of the statewide savings in February. Southern Californians saved 51,208 acre-feet of water, or 16.7 billion gallons.

The common thinking is that rainy skies kept Southern Californians from irrigating their lawns, watering their ornamental bushes and washing their cars. The weather may have helped, but the resulting savings is a relatively new outcome, experts say.

“When it rains, yes, people water less. But that could be attributed to the conservation ethic that has taken place. Some of that drought infrastructure has not gone away,” said Adan Ortega, water expert and adviser to the group of water agencies and cities of the San Gabriel Valley Water Association.

The State Water Board re-leased a plan in November, “Making Water Conservation a California Way of Life,” which continues prohibitions against watering lawns after a rainstorm, washing cars without a hose shut-off nozzle and decorative fountains that use potable water that’s not recycled. Also, 400 of the largest water suppliers must continue to report savings to the board.

The board is also planning for the possibility that this wet year that dropped above-normal amounts of rainfall in Los Angeles and well-above-average amounts in Northern California could be an anomaly and that drought years could return thereafter.

“Though our water picture is significantly improved in most of California, we have to maintain our drought memory and shift to planning and action to prepare for the long term,” Marcus added. Metropolitan Water District of Southern California, the largest water wholesaler providing imported water to 19 million people in Southern California, like smaller agencies is piping surplus water abundant in Northern California reservoirs to local reservoirs and groundwater basins through the State Water Project aqueduct.

“This is certainly positive news and for Southern California as well,” said Bob Muir, an MWD spokesman. “We are hoping consumers will continue conservation practices as we move into the summer.”

Meanwhile, the MWD is moving billions of gallons of water into storage for future dry periods. The Diamond Valley Reservoir in Hemet is at 80 percent capacity and will be full by the end of summer, Muir said. That will equal the most water stored in Diamond Valley in six years, he said.
Local groundwater basins, such as the San Gabriel Basin, which serves 1.9 million people; the Chino Basin (1.2 million people); and the Central Basin (2 million) and West Basin (1 million) in southeast and western Los Angeles County are desperately trying to replenish water tables that hit historic lows during the drought. Refilling underground basins, where water districts, cities and private water companies use wells to draw out water they deliver to customers, is a slow-and-go process, Ortega said.

"The San Gabriel Basin, for example, is still in the hole," he said. "Many of our groundwater basins have not recovered."

Local dams in the San Gabriel Mountains are not full, he said, because local rainfall seeped into parched soil instead of running into the mountain reservoirs. "The earth has been so dried up from five years of drought that much of that water is underneath those dams. That is a factor invisible to most people," Ortega said. Still, the state board is reporting the amount of statewide urban potable water production was the lowest in February since reporting began in June 2014.
Trump clears way for desert water project

Cadiz plan to pump groundwater from Mojave and sell to urban areas had been blocked by Obama.

By Bettina Boxall, April 5, 2017

In another U-turn from existing environmental policy, the Trump administration has eased the way for a controversial California desert water project that President Obama’s team had blocked.

Federal directives drafted under Obama had erected a major obstacle to Cadiz Inc.’s longstanding plans to pump Mojave Desert groundwater and sell it to urban Southern California.

But in a March 29 memo, an acting assistant director at the U.S. Bureau of Land Management revoked two legal guidances that underpinned the agency’s 2015 decision that Cadiz could not use an existing federal railroad right-of-way for a new water pipeline to carry supplies from the project’s proposed well field to the Colorado River Aqueduct.

That meant Cadiz would have to go through federal environmental review to construct a pipeline over federal land, a lengthy and costly process that the company wants to avoid.

Cadiz immediately asked the BLM to reverse what it called a flawed decision. The Obama administration declined to do so.

The new administration appears sympathetic to the company’s concerns.

Although the one-page order doesn’t mention Cadiz, it sets the stage for reversing the finding by BLM’s California field office, which determined that the company needed federal approval for its proposed 43-mile pipeline.

The memo from the BLM, issued under Trump, also states that future right-of-way decisions will be made by the agency’s Washington office.

Cadiz Chief Executive Scott Slater said that he is “cautiously optimistic” that the new decision will open the way for a pipeline on the right-of-way.

U.S. Sen. Dianne Feinstein (D-Calif.), a longtime opponent of the groundwater project, condemned the move.

“The Trump administration has once again put corporate profits ahead of the public’s interest,” she said in a statement.

Feinstein called the reversal “a blatant attempt to muscle the Cadiz water project through,” and “an effort to circumvent an environmental review that any project of this magnitude on federal land would normally undergo.”

The Cadiz project was approved by San Bernardino County, and the company prevailed in several environmental lawsuits filed under state law.
But Feinstein, who was instrumental in creating the nearby Mojave National Preserve, has doggedly fought Cadiz. For years she has attached a rider to congressional appropriations bills barring the BLM from spending money on the Cadiz project.

Cadiz wants to pump enough groundwater from beneath its private Mojave holdings to supply 100,000 homes a year and sell it to urban California at prices that could, over the project’s 50-year-life, reap $1 billion to $2 billion in revenue.

Federal hydrologists have said Cadiz experts are overstating the natural recharge rate of the desert aquifer. And public land advocates argue the pumping could dry up springs vital to wildlife on surrounding federal land, a claim that Cadiz rejects.

The company has garnered congressional support, including from Rep. Rob Bishop (R-Utah), the chairman of the House Natural Resources Committee. Bishop was one of 18 members of Congress who a month ago urged Interior Secretary Ryan Zinke to withdraw the BLM directives — which they said threatened businesses’ ability to run power, telephone or fiber optic lines along railroad rights-of-way.

“I think it has a lot to do with things other than Cadiz,” Slater said. The issue revolves around how much leeway railroads have in letting other interests use their rights-of-way.

An Interior Department solicitor’s 1989 opinion concluded that the 1875 railroad law allowed railroads to authorize other uses without Interior approval. A later solicitor opinion modified that, saying other uses had to derive from or further a railroad purpose.

The two rescinded memos laid out guidelines for deciding what furthered railroad purposes. And the California BLM office subsequently concluded that “conveyance of water for public consumption is not a railroad purpose.”

That finding, said opposition attorney Adam Keats, can still be used against the project.

“This is not an easy thing for the Trump administration to unwind,” he said.

Slater is a water attorney and shareholder of the law firm Brownstein Hyatt Farber Schreck, which runs a high-profile lobbying operation in Washington. For three years Slater was co-chair, along with David Bernhardt, of the firm’s Natural Resources Department. Bernhardt, who served as Interior Department solicitor under George W. Bush, is reportedly a candidate for a top-level Interior position under Trump. Interior oversees the BLM.

Slater said Bernhardt was not behind last week’s action. “David did not lobby for us.... I do not believe that he had anything to do with it.”

bettina.boxall@latimes.com
California governor lifts drought emergency

Ian James, The Desert Sun, April 7, 2017

California Gov. Jerry Brown announced the end of the state’s drought emergency on Friday, stressing that water conservation should continue to help withstand the next drought.

Brown lifted the state of emergency in most of California after one of the state’s wettest winters on record, which brought heavy snowfall to the Sierra Nevada and refilled reservoirs across the state.

“This drought emergency is over, but the next drought could be around the corner,” Brown said in a statement. “Conservation must remain a way of life.”

Brown’s executive order lifted the drought emergency in all California counties except Tulare, Tuolumne, Fresno and Kings, where state officials have emergency programs to bring drinking water to communities where wells have gone dry.

The State Water Resources Control Board will continue to require cities and water agencies to report monthly on water use, and will keep in place prohibitions on water waste established during the drought, including bans on watering immediately after rain, hosing down sidewalks or watering grass on street medians.

“This drought has been one for the record books,” said Felicia Marcus, chair of the State Water Board. “It’s a wake-up call that we can’t hit the snooze button on.”

The drought lasted five years and was one of the most severe ever recorded in California. Brown declared the drought an emergency in January 2014 while standing on bare ground at a snow survey site in the Sierra Nevada.

Groundwater levels declined to record lows in many parts of the state. Wells went dry in places from Central Valley farming towns to mountain communities, and officials estimated that more than 100 million trees died during the drought due to stress and infestations of bark beetles.

State regulators imposed mandatory conservation targets for cities and water agencies in May 2015, and tracked their progress monthly. A year later, state officials amended the drought rules to drop the mandatory water-saving targets.

This winter brought torrents of water that swelled rivers and unleashed floods. As of Friday, snow sensors across the Sierra Nevada measured California’s snowpack at 161 percent of average.

Since June 2015, Californians have responded to THE drought measures by reducing water use in cities and towns by 22.5 percent as compared to 2013, which has been used as a baseline.

Marcus said Californians have “hit it out of the park” with their conservation efforts, and she noted that water savings have continued even during the wet winter.

“I don’t think people are going to unlearn what they learned about their lawns,” Marcus told reporters. “Let’s see how it goes, but I think folks have shown so far this year that they’ll keep up a reasonable level.”
Seeking to pivot to larger water challenges that transcend a single drought, state officials on Friday simultaneously released a plan focusing on long-term water conservation. The plan, titled “Making Water Conservation a California Way of Life,” was prepared in response to an executive order signed by Brown last year.

The plan calls for setting new community-specific conservation targets. It also includes a variety of goals such as improving water data, tracking water use by businesses, encouraging agencies to fix water leaks and requiring agricultural districts to submit more information about water use.

Water and climate scientists have voiced support for the plan. Environmental groups have also called for a continued focus on saving water and using water more efficiently.

Sara Aminzadeh, executive director of the California Coastkeeper Alliance, said she’s happy to see the governor and state agencies follow through on commitments to make continued conservation a priority.

“The drastic change we saw from deep drought to flooding underscores the importance of drought preparedness as a climate change resiliency strategy,” Aminzadeh said. “Moving forward, it will be important to ensure that conservation and efficiency measures are applied to all sources of water, including recycled water.”

California’s drought coincided with years of record-breaking warmth, and climate change is projected to lead to more severe droughts. Warming is also projected to diminish the snowpack that has long served as a critical reservoir for the state.

Across the mountains of the West, measurements 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. And stream gauges have shown earlier spring runoff from snowmelt than in the past.

Water researchers have said California and other western states will need to take a variety of steps to anticipate the emerging changes in the region’s hydrology.

In many farming areas in the San Joaquin Valley, groundwater has been severely depleted and overpumping remains chronic — a central focus of the state’s 2014 Sustainable Groundwater Management Act, which will require local agencies to develop plans for combating overdraft.

The state’s new long-term conservation standards will let urban water agencies decide how to meet a customized water budget based on the regional climate and population.

“The Inland Empire is typically hot and dry, and with climate change we must prepare longer periods through the year that are even hotter and drier,” said Susan Lien Longville, president of the San Bernardino Valley Municipal Water District. “Conservation targets that account for the variety of climates across California make sense, and they will help cities throughout the state save more water.”
Gov. Brown declares California's drought emergency is over

By Scott Smith / Associated Press  
Published: April 7, 2017 Updated: 11:37 a.m.

Gov. Jerry Brown declared an end to California’s historic drought Friday, lifting emergency orders that had forced residents to stop running sprinklers as often and encouraged them to rip out thirsty lawns during the state’s driest four-year period on record.

The drought strained native fish that migrate up rivers and forced farmers in the nation's leading agricultural state to rely heavily on groundwater, with some tearing out orchards. It also dried up wells, forcing hundreds of families in rural areas to drink bottled water and bathe from buckets.

Brown declared the drought emergency in 2014, and officials later ordered mandatory conservation for the first time in state history. Regulators last year relaxed the rules after a rainfall was close to normal.

But monster storms this winter erased nearly all signs of drought, blanketing the Sierra Nevada with deep snow, California’s key water source, and boosting reservoirs.

“This drought emergency is over, but the next drought could be around the corner,” Brown said in a statement. “Conservation must remain a way of life.”

The governor lifted the drought emergency in all California counties except Fresno, Kings, Tulare and Tuolumne, where emergency drinking water projects will continue to help address diminished groundwater supplies.

Water conservation will become a way of life in the nation’s most populated state, Felicia Marcus, chairwoman of the State Water Resources Control Board, who led conservation planning. Officials already have started charting long-term rules to make California more resilient as climate change makes weather patterns more severe.

“There’s a greater appreciation of just how precious water is,” she said. “We’ve got to plan for longer droughts.”

Cities and water districts throughout the state will be required to continue reporting their water use each month, said the governor order, which also bans wasteful practices.

New rules are expected to permanently ban wasteful practices, such as hosing off sidewalks and watering landscapes in the days after it rains. Officials say they will work aggressively to stop leaks that waste water.

Susan Atkins of the charity Self-Help Enterprises said the drought is not over for more than 900 families who have large water tanks in their yards because their wells dried up during the years long drought.

Most of them are in Tulare County, a farming powerhouse in central California’s San Joaquin Valley. Atkins said she still receives calls from people whose wells are running dry and need a tank and bottled water.

“In no way is it over,” she said of the drought. “We will run out of money before we run out of people that need help.”
THE DROUGHT IS OVER
Governor declares five-year dry spell at end; some watering restrictions remain

By Steve Scauzillo, April 8, 2017

After a record-setting winter rainy season, plus an impressive effort by area residents to conserve water in the first two months of 2017, California’s devastating five-year drought is finally over.

Gov. Jerry Brown on Friday declared an end to the state’s water emergency, signaling the lifting of mandatory conservation targets while keeping in place numerous prohibitions on wasting water.

“This drought emergency is over, but the next drought could be around the corner,” Brown said in a statement. “Conservation must remain a way of life.”

The lengthy drought was shattered by last winter’s frequent rain and snowstorms, which created one of the highest precipitation totals in the past 150 years, according to state water, energy and environmental agencies.

With so much rainfall, and the Sierra snowpack at 164 percent of the season average, the state’s reservoirs are filled to capacity and beyond, capable of supplying most of the state with enough water. The governor lifted four drought-related executive orders from 2014 and 2015 and rescinded two emergency proclamations from 2014 in all 58 counties that required 25 percent savings, with the exception of Fresno, Tulare, Kings and Tuolumne.

The new order means different things to 36 million Californians, many whom have cut water use more than 20 percent since 2013, and the 410 urban water agencies under restrictive conservation targets and, as of last year, stress test reporting. Residents may see cities drop watering restrictions, which were set as stringently as one day per week. Now, those restrictions are no longer required by the State Water Resources Control Board, which has carried out the governor’s orders for the past three years, said Dan Arrighi, manager of water resources at the San Gabriel Valley Water Co., a large, for-profit water retailer.

“Now with the drought declared over, the restrictions for watering will go away. But the prohibitions are still there,” he said. Changes to watering days, if any, will be left up to each city or county, he said.

Some water-conservation rules remain in place. Residents may not water outdoor plants and lawns while it’s raining, or for 48 hours after.

Watering down sidewalks is still not allowed. Watering landscaping such that water flows into the street is banned. And homeowners associations or local governments still may not penalize homeowners for practicing outdoor water conservation.

The governing boards of water suppliers no longer need to submit water plans every year predicting how they would perform during a drought of three years, said Felicia Marcus, chairwoman of the state water board.

Marcus said she doesn’t foresee Southern Californians going back to their wasteful ways. Many have swapped out lawns for drought-tolerant landscapes, attached low-flow faucet and showerheads and have ratted on their neighbors for running sprinklers during a storm or on non watering days.

“Yes, we’ve backed off the emergency part,” she said. “But it definitely doesn’t mean turn on the tap with abandon. I have a lot of faith in the public.”
The Department of Water Resources is requiring water agencies to submit usage plans every five years. Agencies will self-regulate by establishing new targets within the next four to eight years, the DWR reported.

New regulations making water-conservation measures permanent are being created by the state water board and the Legislature, said Max Gomberg, the Water Resources Control Board’s conservation and climate change manager.

Metropolitan Water District of Southern California “helped set the water-saving example through our historic investment in turf removal and long-term wisdom of investments in resource management,” said MWD General Manager Jeff Kightlinger in a statement.

“We will continue exploring and developing water resources that prepare the region for the future water challenges created by inevitable drought and climate change,” he said.

During the five-year drought that began in 2011, the state experienced the driest four-year period, the warmest three years and the smallest Sierra snowpack in state history.

The drought was responsible for killing 100 million trees, reducing farm production, harming wildlife and lowering groundwater basins while severely depleting water supplies in several rural communities forced to rely on bottled water provided by the state.
Suit filed over diversion of river water

Two environmental groups allege that San Bernardino’s plan for new water recycling plant would harm wildlife

By Jim Steinberg, April 10, 2017

SAN BERNARDINO >> Two environmental groups are suing the city of San Bernardino Water Department and the city of San Bernardino for planning to divert up to 22 million gallons of water a day from the Santa Ana River — action they say would reduce water flows by up to 50 percent.

The diversion will “have significant impacts on imperiled species,” including the Santa Ana sucker, the San Bernardino kangaroo rat, the southwestern willow flycatcher and the least Bell’s vireo, among other species, according to the lawsuit filed Thursday in San Bernardino Superior Court by the Center for Biological Diversity and the San Bernardino Valley Audubon Society.

The change is part of the city’s recently approved Environmental Impact Report for a “Clean Water Factory”

— a planned new water recycling plant.

“The project is a bad deal for people and wildlife alike,” Drew Feldmann, a San Bernardino resident and conservation chairman of the San Bernardino Valley Audubon Society, said in a statement.

“At a time when the city’s emerging from bankruptcy, it should not be wasting limited resources on this expensive project that will starve our river of water and wreck its riparian ecosystems.”

We have entered into a tolling agreement with the city in an effort to avoid the need for additional costly litigation. The tolling agreement is for 90 days.

“The people of San Bernardino should not have to choose between a healthy family and adequate water supplies,” he said.

Said Stacey Aldstadt, general manager of the San Bernardino Water Department: “Despite the fact that we have done everything demanded of us from the U.S. Fish and Wildlife Service, at the cost of over $5 million, they have decided that San Bernardino, an economically disadvantaged community, must alone bear the costs of the fish.”

San Bernardino City Attorney Gary Saenz said he had not seen the lawsuit as of late Thursday afternoon, and therefore couldn’t comment on it. The lawsuit seeks injunctive relief from the proposed water diversion.

The diversion would take water from the Rapid Infiltration and Extraction (RIX) Facility, a wastewater plant located in Colton, where this water is now being discharged into the Santa Ana River, and shift the treated water to spreading basins, for groundwater discharge, the lawsuit says.

The city of San Bernardino operates the RIX plant and is the primary owner, although the city of Colton is a minority owner.
Water discharge from RIX for years have helped keep the fish in the Santa Ana River alive, the plaintiffs said in a statement that was separate from the lawsuit.

Aldstadt said it is because RIX puts “good quality water into the dry riverbed that the suckers now have habitat.”

The RIX plant is a wastewater plant “not a water supply plant,” Aldstadt said. “...Why does San Bernardino have to absorb all of the consequences of the other agencies’ drawdowns (use of water from the San Ana River)?”

About 90 percent of the surviving Santa Ana sucker in this region live within a few miles downstream of the RIX plant, U.S. Geological Survey staff have said.

The water diversion is part of San Bernardino’s recently approved Environmental Impact Report for a “Clean Water Factory” a planned new water recycling plant. While the Center and Audubon Society filed a lawsuit, the San Bernardino Valley Municipal Water District and the city of San Bernardino have agreed to extend the deadline for filing a lawsuit — which was Thursday — for 90 days “in an effort to avoid the need for costly litigation,” said Doug Headrick, general manager.

The Valley District is the lead agency for a regional effort to boost the population of the endangered Santa Ana sucker.

The idea of this “tolling agreement” is to allow discussions over the Clean Water Plant to continue, without giving up the district’s right to sue, Headrick said.

In a statement, the plaintiffs said that although the water department “claims it will replace some unspecified amount of this (diverted) water by groundwater pumping, such severe reductions may render the river uninhabitable for suckers.”

“The Santa Ana sucker has a right to live and thrive in the Santa Ana River, as it has for thousands of years,” said Ileene Anderson, a senior scientist at the Center for Biological Diversity.

“The water department has no business pushing this endangered fish closer to extinction so it can pursue this costly and ill-conceived water project,” she said in the statement.
Water flowing to long deprived community at Wildomar-Menifee border

By MICHAEL WILLIAMS | PUBLISHED: April 12, 2017 at 12:07 pm | UPDATED: April 12, 2017 at 3:19 pm

For years, several hundred residents of a rural enclave straddling the Wildomar-Menifee border had to rely on bottled water to drink, water their animals and even to wash their salad greens. Those days soon will be a distant memory after workers in two water districts flipped on the switches this week to start delivering clean potable water from newly constructed pumps and pipes to the community.

“This is a landmark moment for these residents and one in which we are proud to have taken an active role in,” said Eastern Municipal Water District board member Ron Sullivan in a news release.

Over the last half-decade, Eastern worked in tandem with the Elsinore Valley Municipal Water District on planning and constructing a system providing safe and reliable drinking water to about 150 households north of Bundy Canyon Road.

The rural community had been stuck with unstable service and poor quality well water from a small private firm — the now defunct County Water Company of Riverside.

Health officials had long warned the neighborhood against drinking the nitrate-saturated water. In addition, residents experienced low water pressure and occasional outages.

Public outcry finally led the districts in 2012, working in conjunction with state and county officials, to intervene and come up with a plan to extend their systems to the village, which bordered Elsinore Valley’s jurisdiction to the west and Eastern’s to the east.

The districts received a $6.5 million grant from the California Department of Public Health to design and build the infrastructure. While the project was being planning, Elsinore Valley installed an above-ground emergency line in 2014 from a nearby reservoir in Wildomar until the permanent system was ready to deliver, which happened Tuesday.

Before either district could act on the plan, it required state legislation introduced by state Sen. Richard Roth, D-Riverside, and backed by state Assemblywoman Melissa Melendez, R-Lake Elsinore, to protect the water agencies from being sued.

“This process was incredibly complex, and we made a commitment to find a solution for these residents,” said Elsinore Valley board director Andy Morris, who represents the Wildomar area encompassing the formerly beleaguered neighborhood.

A dedication celebration geared toward residents of the community as well as contributors to the solution has been scheduled for 11 a.m., Wednesday, April 26, at Bundy Canyon Road and Beverly Street.

“This is about celebrating them, because those residents have been through a lot to reach this point,” Eastern Public Information Officer Kevin Pearson said. “This was a very important process and project, and we’re proud to have been part of it, to be honest.”

IF YOU GO: What: Dedication celebration for the extension of Elsinore Valley and Eastern municipal water districts service to a neighborhood straddling the Wildomar-Menifee border -When: 11 a.m., Wednesday, April 26 -Where: Bundy Canyon Road and Beverly Street, Wildomar - Info: 951-674-3146 or 951-928-3777
Surveyors put boots on the snow for readings
Abominable weather a perk for dedicated snowpack monitors

Brian Melley, Associated Press, April 13, 2017

INDEPENDENCE - We were trudging up the side of a mountain on skis to measure California’s massive snowpack when a late blast of winter stopped us in our tracks.

I started the morning less concerned about strong winds forecast and light snow than keeping pace with veteran snow surveyors in the thin Sierra Nevada air and getting over steep, icy 11,700-foot Kearsarge Pass. Now, shy of that goal, I was struggling to keep warm and stay upright.

Howling gales warned to brace for impact. It didn’t matter. Gusts bowled me over and toppled Kevin Klinefelter. Staggering to our feet, we followed John Dittli, making turns in a near-whiteout between foxtail pines. Blown downhill to our cars, we decided to return another day.

The arduous work of snow surveyors is largely unknown to most Californians, even as measurements they compiled of a near-record snowpack bolstered Gov. Jerry Brown’s decision last week to lift an emergency declaration after five years of drought.

Crews stay out as long as two weeks in alpine wilderness, battling the elements, skirting avalanche terrain and plodding through deep powder to gather the data — a practice that has endured even as new technology tries to gauge the state’s expected water supply from snowmelt.

To get a feel for the experience, I had skied in alone the night before under a sky awash with stars and a slice of moon that hung like a wry grin atop the jagged skyline. Using a headlamp to follow Dittli and Klinefelter’s faint tracks a couple miles to a cabin high above, I had little idea of what lay ahead.

Snow surveys date to the early 1900s when a University of Nevada professor developed a method to weigh water content in snow and predict runoff into Lake Tahoe. Dam operators used the information to prevent flooding and save water, ending a fight between lake residents and land owners downstream.

The practice adopted by water agencies and power providers was eventually coordinated by the state.

Remote sensors installed 40 years ago provide real-time depths, though not reliably. In recent years, satellite imagery and planes using lasers have measured snowpack from afar.

Despite predictions technology will make snow surveys obsolete, David Rizzardo of the Department of Water Resources said boots on the snow will probably be needed two more decades to verify and fine-tune remote data. Snow surveys remain some of the state’s best-preserved climate records.

Rangers, utility and water agency employees, and state workers survey more than 250 areas — known as snow courses — monthly from January to May.

Snowmobiles, helicopters and snowcats are used to reach many courses, but hardy skiers still travel to remote wilderness where machines aren’t allowed, sheltering in rustic cabins along the way.

Sierra Nevada means snow-covered mountain range in Spanish. In winter, it’s like a 400-mile frozen reservoir that holds up to a third of the state’s water supply. In recent years, imposing peaks that soar above 14,000 feet were less snow-capped and canyons and meadows sparsely covered.

Two springs ago, Dittli and Klinefelter hiked the high country in shorts and running shoes to measure a mostly nonexistent snowpack. They bicycled to Devils Postpile National Monument, where not a patch of snow remained.

The day after being driven down the mountain by wind and snow, we reassembled about 10 miles below Bishop Pass, a 12,000 foot gap dividing Inyo National Forest from Kings Canyon National Park.
We were joined under blue skies by Klinefelter’s wife, Ann. The four of us — all in our 50s — fastened our boots into ski bindings and were almost immediately fighting our way along a steep, icy hillside above a reservoir. South Lake had been drained to make room for snowmelt and its buckled ice looked like an earthquake had struck.

After huffing and puffing uphill through a pine forest, we emerged in a clearing marked at each end with orange snow survey signs.

With sections of snow tube assembled, Ann Klinefelter paced 50 feet between the signs and plunged the tube through the snow to the ground nearly 7 feet below. She noted the depth, withdrew it and placed it on a scale her husband dangled from a ski pole. Dittli penciled the depth and water content in a notepad.

She repeated the cycle several times and found the water content double the average for April1, the most significant measure of the year because it marks the normal start for runoff.

When we reached the cabin, we dropped backpacks and sat in the sun in a motley assortment of beach chairs sheltered from the breeze by a towering wall of snow in front of the small stone cabin.

Built in the 1950s, the bare-bones shelter features two bunk beds, a woodburning stove, a propane stove and a cupboard stocked with canned and packaged foods hauled in by mules. Because the wind had scoured a clearing around the Bishop Pass cabin, it was one of few the crew did not need to shovel out.

Dittli and Ann Klinefelter joked about how her husband shirked digging duties on the lengthy Kem River tour this winter. Kevin Klinefelter had climbed through the second-story entrance of a cabin to light a fire but never emerged while they shoveled for more than an hour.

As avid backcountry skiers, all three welcomed the near-record snowpack even as it raised avalanche danger, made for slow plodding at times and extra grit to drive the snow tube more than 11 feet deep through icy and dense layers.

Each waited years for an opening to join the crew. Kevin Klinefelter even uses vacation from the U.S. Forest Service to participate.

The $105-a-day pay is not enough to make a living, but it’s not a bad way to live.

“I’ve been told I blur the line between work and play,” said Dittli, a photographer, who carries a camera at his waist. “I kind of like to think that my play is hard work and my work is play.”

In Sacramento, Rizzardo fields dozens of inquiries a year from people interested in a job, but the ranks thin when they learn that areas far less rugged than the eastern Sierra can require skiing eight miles.

“Well, yeah, we don’t jet pack in,” he tells them.

For the effort to climb thousands of feet on skis with a backpack in blustery conditions or under the relentless sun on a clear day, there is always a payoff.

After measuring snow beneath the craggy, spectacular Palisades in Kings Canyon on the final morning, we stopped briefly atop Bishop Pass, where the landscape plunged to a series of rolling slopes and lakes that stretched to the arid brown valley in the distance.

Dittli cut turns through crust that flaked off and we followed for the long descent.

A hiker we whizzed past arrived at the parking area as I loaded gear in my car. She asked where we had come from.

She was unaware of snow surveys, so I explained.

“No offense,” she said, “but that doesn’t sound like work to me.”

“I kind of like to think that my play is hard work and my work is play.”

JOHN DITTLI
Snow surveyor
Pouring it on

The idea of flooding cropland to replenish groundwater basins is taking hold in California

By Bettina Boxall, April 17, 2017

HELM, Calif. — The water spread into every corner of the fields, beckoning wading ibises and egrets as it bathed long rows of sprouting grapevines.

Several inches had covered the vineyard ground for a couple of months. But rather than draining it, Don Cameron was pouring more on.

“This is not about irrigation,” the sprawling farm’s manager kept telling his quizzical workers. “It’s about recharge. ... I want all the water you can get into the grape fields now.”

There is so much water in the state’s vast plumbing system that for weeks, the big government water projects have reduced exports from the Sacramento-San Joaquin Delta. San Luis Reservoir, where the projects park water on its way south, is full.

Yet there is more room than ever in one of the state’s most capacious storage spaces: the San Joaquin Valley aquifer.

Parts of it have been overpumped for a century. Groundwater levels fell even further during the last five years of drought as growers in California’s heartland drilled new and deeper wells to make up for huge cuts in irrigation deliveries.

“We have a great reservoir under our feet. Why not use it?” Cameron asked.

The water spilling into the vineyard had been diverted from a brimming flood-control channel nearby. Now it seeped into the sandy loam at the rate of 3 to 4 inches a day, percolating into the San Joaquin Valley aquifer that, year in and year out, provides Terranova Ranch and its neighbors with most of their irrigation water.

“It goes down fast,” observed Cameron as he stood amid 150 acres of flooded Barbera vines that were topped with healthy new leaves and tiny clusters of grape buds.

Most of the time, the bed of the North Fork of the Kings River is bone-dry. Near Helm, where it is called the James Bypass, the channel fills only when upstream Pine Flat Reservoir makes flood releases.

This year, milk-chocolate flows are streaming down the bypass, swirling past islands of grass and half-submerged shrubs. The chatter of birds mixes with the sweet sound of rippling water as it makes its way to the San Joaquin River and ultimately out to sea.

But on the last day of March, 10,000 gallons a minute were passing through a 24-inch pipe into a canal Cameron built to carry the water to his Arbequina olive groves, baby pistachio trees, alfalfa and Barbera grapes that Gallo Winery buys. All told, Cameron is putting Kings River floodwater on about 700 acres this year, and he plans to continue the diversions as long as the flood flows hold up.

“We’re reconnecting the river to its flood plain,” he says.
The idea of using cropland to replenish groundwater basins is just beginning to take hold in California. UC Davis researchers are experimenting to determine which crops will tolerate having their roots wet for weeks or months at a time. The Almond Board of California is funding work to identify almond acreage that has soil suitable for recharge.

Cameron has been at it much longer.

“We were pioneering this. We had a lot of skeptical people. To me it seemed natural,” he said.

“We lose 2, 2½ feet of water table a year [to overdraft]. It kind of adds up,” he added. “I realized a long time ago we need to take corrective action.”

White-haired and 64, Cameron is more willing to embrace unconventional practices than many growers — probably, he says, because he doesn’t have a farm background.

“I’ve been called a communist,” he notes wryly.

Cameron grew up in Redding and Fresno, earned a biology degree from Fresno State and wanted to go into wildlife management.

When he didn’t get a state wildlife job, he wound up doing agricultural pest-control work for a small company used by Terranova. In 1981, he went to work for the 5,500-acre farm operation, which is owned by a private family trust. Six years later, he was named general manager and vice president.

During the record wet winter of 1982-83, Cameron drove by vineyards that had been flooded by the overflowing San Joaquin River. He kept watching as the months passed and the water receded. The vines bore healthy fruit and that September, pickers harvested the grapes.

“I thought ‘OK,’ and filed it away,” Cameron recalls.

He started experimenting with flood recharge on a small scale in the 1990s. In 2011, California’s last wet year, he flooded vineyards well into the growing season. They did just fine.

“We’ve proven in 2011 that it does work,” he said, adding that monitoring showed that 70% of the water applied to the fields made its way past the root zone into the aquifer.

He thinks one of the reasons it works is that the cold floodwater holds oxygen, so the plant roots don’t suffocate. When the water temperature warms up in late spring, he stops.

But 700 acres is just the beginning. This summer Terranova expects to start construction on the first phase of a $7.5-million project to capture Kings River floodwater and use it for recharge on 16,000 acres of cropland.

A $5-million flood grant from the state is covering most of the cost, with the rest coming from Terranova. Backers have agreed to take a certain amount of floodwater for as long as it is available to relieve downstream flooding.

“We’re designing this to make a difference in the area here,” Cameron said. “It will include all of the growers in our area.”

Neighboring farmers used to think Cameron was nuts. “But now,” he says “they’re believers” — converted by a landmark 2014 state law that requires groundwater users to end overdraft over the course of the next two decades.
They will either have to increase aquifer recharge or cut back on pumping, which would probably force growers to take cropland out of production.

The law "is a big stick," Cameron said. "They're understanding how important it is to replenish our underground water supplies for the long term. Without doing this, we're not going to be farming all our farmland. It's pretty simple."

But not every part of the valley can do what Terranova is doing.

"Part of the problem is getting the water to the right location," Cameron said. "We desperately need more conveyance to move this kind of water when it is available."

In some areas, the soil is too heavy for water to percolate into the aquifer. Some irrigation districts don't have rights to floodwater. Growers remain wary of harming their crops with weeks of long baths.

And they fret that someone else will pump the water that they put in the ground.

"I think it's just not as easy as people would hope it could be," said water researcher Philip Bachand, who is working on the Terranova project.

To overcome the concerns, growers need an incentive, said Daniel Mountjoy of Sustainable Conservation, a nonprofit group.

Why not pay growers to capture floodwater and apply it to their fields, he wonders. The cost for new reservoirs sought by many in the farm sector is far greater than that for groundwater replenishment, Mountjoy said.

"So why don't we use that storage money to pay a fraction of the cost and get farmers to fill that aquifer up to the extent possible?"

Cameron, for one, sees the obligation to replenish the groundwater reserves that keep fields green even through drought as more than a matter of money. "Morally," he says, "I thought it was the right thing to do."
CVWD Supports Governor’s Lifting of Drought Emergency

By Staff Reports

Coachella Valley Water District (CVWD) supports actions taken last week to lift the state’s drought emergency while shifting focus to long-term conservation efforts and improved planning for future droughts.

“CVWD has been among several water agencies lobbying the state to lift the emergency in light of the wet winter and heavy snow pack throughout the state,” said CVWD General Manager Jim Barrett. “We have always been committed to promoting conservation and managing the water supplies in a long-term, sustainable manner.”

During the drought emergency months, CVWD customers reduced their water use by an average of 23% compared to the state’s base year of 2013. In March, CVWD customers used 24% less water than the same month in 2013. Water agencies will be required to continue to record and submit monthly conservation information to the State Water Resources Control Board.

“Our customers worked hard, many at great cost, to continue to reduce their water use even after the state conservation mandates were eliminated,” Barrett said. “They should be commended for that effort and for continuing to show a commitment to making conservation a way of life. I suspect we will never go back to the 2013 levels of water use as everyone has incorporated water-saving behavior into their daily lives.”

Because of the behavior changes, the state is looking to make water-use restrictions permanent. The following state and local restrictions remain in effect until further notice:

• No irrigation during or within 48 hours after measurable rainfall.
• Broken sprinklers must be repaired within 24 hours of notification.
• Eating establishments may only serve drinking water upon request.
• Hotels and motels must provide guests with the option of choosing not to have towels and linens laundered daily.
• Applying water to outdoor landscapes in a manner that causes runoff to adjacent property, roadways, parking lots, etc. is prohibited.
• Using a hose to wash an automobile, windows, solar panels, and tennis courts except where the hose is equipped with a shut-off nozzle, is prohibited.
• Applying any water to any hard surface including, but not limited to, driveways, sidewalks, and asphalt is prohibited.
• No using non-recirculated water in a fountain or other decorative water feature.
• Irrigating ornamental turf on public street medians is prohibited.

In a related action, state agencies today released a plan called “Making water conservation a California way of life.” CVWD was among the water agencies to provide input on development of the plan, which requires legislation to establish long-term conservation measures and improved planning for future droughts.

CVWD is a strong supporter of the state planning for future droughts, including increased reservoir capacity and reliability of the State Water Project through the California WaterFix project.

Because the Coachella Valley is always in a drought, this type of planning isn’t new to CVWD. The Coachella Valley Water Management Plan, a blueprint for long-term sustainability, includes conservation goals and several programs and projects to ensure the water supplies for the valley’s future.

Among some of the successful planning efforts to help the valley’s water supply are:

• Replenishing mountain runoff and snow melt into the aquifer for nearly 100 years.
• Conservation goals established in 2002 and updated in 2010.
• Importing more than 3.3 million acre-feet of water for groundwater replenishment.
• Providing recycled water and Colorado River water to golf courses, farms and other large irrigation users in lieu of groundwater.

Among some of the successful conservation highlights:

• Customers have converted more than 13 million square feet of grass to desert landscaping through our turf rebate program since 2009.
• Customers have replaced more than 5,000 old toilets with more efficient models through our residential and commercial rebate program since 2012.
• Staff visited more than 9,000 homes and businesses provide on-site technical assistance since the drought declaration in 2014.
• Staff installed more than 4,000 free smart irrigation controllers since 2006 and approved rebates for more than 1,500 smart irrigation systems at homeowner associations.

For a complete list of conservation programs, tips for reducing water use and existing water-use restrictions, visit www.cvwd.org/conservation.

Editor’s note: For additional information on the Governor’s drought actions, please see the Homefront feature in this issue.
Palm Springs residents can now water their lawns at any time

Sammy Roth, April 20, 2017

Using less water is still critical to California’s future, state officials and water experts say.

But now that Gov. Jerry Brown has declared an end to California’s historic drought, water agencies are easing up on some of the strict rules they put in place over the last few years.

Desert Water Agency customers in Palm Springs and Cathedral City can now water their lawns whenever they want, thanks to a unanimous vote from the agency’s board of directors Tuesday. Under restrictions approved two years ago, outdoor watering had only been allowed Monday, Wednesday and Friday before 7 a.m. and after 7 p.m.

The Palm Springs-based water agency still prohibits hosing down driveways and sidewalks, over-irrigating lawns to the point where water runs onto pavement and watering within 48 hours of rainfall, among other rules approved during the drought. Other local water agencies have kept similar restrictions in place.

“With temperatures climbing into the triple digits as soon as this week, it was a good time to move off of three-days-a-week watering,” James Ciolfi, president of the Desert Water Agency’s board of directors, said in a statement. “Flexibility with when to water will help keep plants alive without undermining the gains we’ve achieved.”

Through February, Desert Water Agency customers had slashed their water use 24.3 percent since June 2015, when Brown implemented mandatory cutbacks amid the worst year of the drought. Those cuts are measured relative to water use in 2013, which the state has used as a baseline. State officials originally gave DWA a 36 percent conservation target, although that goal was later eased and was eliminated last summer after a relatively wet winter. DWA has since urged customers keep water use at least 10 percent below 2013 levels.

Other local water agencies have also lifted restrictions on watering days.

The cities of Coachella and Indio started allowing outdoor irrigation seven days a week last summer, although they still limited it to before 6 a.m. and after 6 p.m., when less water is lost to evaporation. Mission Springs Water District, which serves Desert Hot Springs, took the same step in November.

Brian Macy, the Indio Water Authority’s general manager, said the city would pass a resolution Wednesday night removing the time-of-day watering restrictions as well.

“With the governor removing his restrictions, at the local level we now are having an opportunity to follow suit with what the state has already done,” he said.

The desert’s largest water provider, the Coachella Valley Water District, never restricted outdoor irrigation. It did institute penalty fees for homes and businesses that didn’t cut their water use sufficiently, although those fees have since been dropped.
Gov. Jerry Brown officially lifted the “drought emergency” for most of the state earlier this month, following one of the wettest winters on record. The drought lasted five years and was the worst in California’s modern history. Some researchers concluded the three-year period from 2012 to 2014 was the most severe drought in the last 1,200 years.

State officials have called for Californians to keep saving water, especially since scientists expect climate change to lead to more severe droughts in the Southwest. “The extremes of severe drought followed by floods that we’ve experienced these last few years is what will happen more often as climate change accelerates,” Felicia Marcus, chair of the State Water Resources Control Board, said earlier this month. “To become more resilient to future droughts, we simply have to become more efficient in how we use water, because efficiency savings are the cheapest water out there.”

Through February, Coachella Valley Water District customers had cut their water use 22.6 percent since June 2015, slightly more than the statewide average of 22.5 percent. Indio residents managed to save 21.9 percent during that time period, with homes and businesses in the city of Coachella cutting back by 21.6 percent. Mission Springs customers in Desert Hot Springs reduced their water use by 17.2 percent.

Some of those savings should be permanent, since many homes and businesses have replaced thirsty grass lawns with desert landscaping, often aided by rebates from local water providers.

“Once you take that much turf offline, it’s certainly going to make a permanent impact,” said Ashley Metzger, a spokesperson for the Desert Water Agency.
Water deal could net city utility $100M

April 21, 2017

Riverside Public Utilities has been using its pipes to transport water for another utility since 2009 and selling water the city doesn’t need since late 2015, and a proposed deal would continue those arrangements for years to come.

Under an agreement with Western Municipal Water District, which serves about 23,000 customers in western Riverside County, the city utility leases excess capacity in its network of pipes and pump stations to help Western get water it owns to its customers.

Since demand from Riverside customers dropped because of drought-related conservation, the city was left with extra water and no way to save or store it for later. So the city utility has been selling it to Western at a cheaper rate than imported supplies.

On Monday, the Riverside Public Utilities board will discuss extending the water transportation deal for 20 years and continuing to sell excess water to Western for 10 years, earning an estimated $4.24 million in fiscal 2018 and as much as $100 million by the end of the agreements.

The board will meet at 6:30 p.m. in the council chambers at Riverside City Hall, 3900 Main St.
— Alicia Robinson
Indio Water Authority Lifts Drought Penalties

Posted: Apr 21, 2017 3:36 PM PDT Updated: Apr 21, 2017 3:36 PM PDT
KMIR News Staff

Indio, CA -

Indio Water Authority (IWA) has lifted the Stage II water restrictions and the drought surcharge imposed to promote conservation following an end to the Drought State of Emergency and City Council/IWA Board’s action to that effect on April 19.

On April 7, Governor Jerry Brown declared that the five-year drought across most of California was over following a winter of abundant rain and snow. While mandatory state conservation regulations were lifted, prohibitions on water waste remain in effect.

Following the governor’s announcement and Board action, IWA has eliminated drought penalties for customers who exceed their water budgets. Individual water budgets are located on monthly billing statements, and allow for efficient indoor and outdoor use. Those who exceed their budget will no longer pay extra penalty but only the higher rates for top-tier consumption. May 2017 water bills will reflect the change.

“The drought emergency is over, but IWA customers must continue to use water as efficiently as possible,” said IWA General Manager Brian Macy. “The last five, dry years have taught us that we must protect our resources and be smart about water use.”

Wasteful water practices that are permanently banned include watering lawns within 48 hours of a rainstorm, hosing off sidewalks and driveways, washing automobiles with hoses not equipped with a shut-off nozzle, irrigating ornamental turf on public street medians, and overwatering landscaping to the point where water runs into the streets.

For more information about IWA’s water conservation program and rebates, please call (760) 391-4038 or email at iwaconserve@indio.org.
DESERT WATER AGENCY
OUTREACH & CONSERVATION
ACTIVITIES
APRIL 2017

Activities:


4/5/17  Ashley Metzger attended the California Public Information Officers conference in San Diego.

4/6/17  Ashley Metzger was on a live segment with KESQ on Whitewater River safety.

4/7/17  Ashley Metzger was interviewed by KESQ and KMIR about Governor Brown ending the drought emergency.

4/11/17  DWA hosted a facilities tour for stakeholders and local residents.

4/12/17  Ashley Metzger and Vicki Petek attended the Family Fun Fest at Palm Springs Stadium and DWA provided the water trailer.

4/13/17  Ashley Metzger was on a live segment with KESQ about Governor Brown ending the drought emergency.

4/17/17  Vicki Petek completed 6 turf buy back post-inspections.

4/18/17  DWA hosted a blood drive with Life Stream, which was mentioned on KESQ.

4/18/17  Ashley Metzger was interviewed by KESQ and KMIR about DWA ending day and time water restrictions.

4/20/17  Ashley Metzger was on a live segment with KESQ about DWA ending the drought watering restrictions.

4/25/17  Ashley Metzger was interviewed by Alpha Media Group about the end of the drought emergency and drought watering restrictions.

4/25/17  Ashley Metzger gave a classroom presentation to the 3rd grade at St. Theresa School.
4/26/17  Vicki Petek completed 1 turf buy back post-inspection and 1 follow-up inspection.

4/26/17  Emmanuel Sarpong (Operations Dept.) was interviewed for a video on water industry careers at California Water Environment Association conference. O&C facilitated.

4/26/17  Ashley Metzger was on a live segment with KESQ about DWA volunteers.

Public Information Releases:


April 12, 2017 – Media release with CVWD – Local Agencies Warn Community About Dangers of Rapid Flows at Whitewater River.

April 14, 2017 – Nextdoor – March conservation comes in at 23.6% plus more water headed to Coachella Valley.

April 18, 2017 – Media release and Nextdoor – Desert Water Agency Removes Restrictions on Watering Days and Times

Water Conservation Reviews

Palm Springs Biltmore Phase III  Village Racquet Club
California Convalescent Hospital  City of Palm Springs – Irrigation, Buildings, Parks
Smoke Tree Inn

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.
Audience Overview

Overview

- **Sessions:** 300
- **Users:** 2,947
- **Pageviews:** 9,592

- **Pages / Session:** 2.49
- **Avg. Session Duration:** 00:01:59
- **Bounce Rate:** 36.47%

- **% New Sessions:** 62.49%

<table>
<thead>
<tr>
<th>Language</th>
<th>Sessions</th>
<th>% Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. en-us</td>
<td>3,680</td>
<td>95.58%</td>
</tr>
<tr>
<td>2. en-ca</td>
<td>47</td>
<td>1.22%</td>
</tr>
<tr>
<td>3. en-gb</td>
<td>32</td>
<td>0.83%</td>
</tr>
<tr>
<td>4. ko-kr</td>
<td>16</td>
<td>0.42%</td>
</tr>
<tr>
<td>5. pt-br</td>
<td>8</td>
<td>0.21%</td>
</tr>
<tr>
<td>6. en-au</td>
<td>7</td>
<td>0.18%</td>
</tr>
<tr>
<td>7. c</td>
<td>6</td>
<td>0.16%</td>
</tr>
<tr>
<td>8. en</td>
<td>6</td>
<td>0.16%</td>
</tr>
<tr>
<td>9. zh-cn</td>
<td>6</td>
<td>0.16%</td>
</tr>
<tr>
<td>10. de-de</td>
<td>4</td>
<td>0.10%</td>
</tr>
</tbody>
</table>

© 2017 Google
### Page Summary

**Last 28 days**

- **Results from Mar 31, 2017 - Apr 27, 2017**

#### Actions on Page

**March 31 - April 27**

- **5** Total Actions on Page ▲100%

#### Page Views

**March 31 - April 27**

- **62** Total Page Views ▲13%

#### Page Likes

**March 31 - April 27**

- **25** Page Likes ▼58%

#### Reach

**March 31 - April 27**

- **6,211** People Reached ▲80%

#### Post Engagements

**March 31 - April 27**

- **728** Post Engagement ▲52%

#### Videos

**March 31 - April 27**

- **2,845** Total Video Views ▲25%

### Published vs. Type vs. Targeting vs. Reach

<table>
<thead>
<tr>
<th>Published</th>
<th>Post</th>
<th>Type</th>
<th>Targeting</th>
<th>Reach</th>
<th>Engagement</th>
<th>Promote</th>
</tr>
</thead>
<tbody>
<tr>
<td>04/28/2017 12:01 pm</td>
<td>Like this house, deserscape is so Palm Springs! Apply for a tur</td>
<td><img src="example.png" alt="Image" /></td>
<td>$</td>
<td>213</td>
<td>10</td>
<td>Boost Post</td>
</tr>
<tr>
<td>04/22/2017 09:55 am</td>
<td>Happy Earth Day! Show your commitment to conservation today</td>
<td><img src="example.png" alt="Image" /></td>
<td>$</td>
<td>2.1K</td>
<td>71</td>
<td>Boost Post</td>
</tr>
<tr>
<td>04/20/2017 01:35 pm</td>
<td>Desert Water Agency's cover photo</td>
<td><img src="example.png" alt="Image" /></td>
<td>$</td>
<td>123</td>
<td>6</td>
<td>Boost Post</td>
</tr>
<tr>
<td>04/18/2017 03:30 pm</td>
<td>DWA keeps 10-13% conservati on target but ends drought water</td>
<td><img src="example.png" alt="Image" /></td>
<td>$</td>
<td>540</td>
<td>32</td>
<td>Boost Post</td>
</tr>
<tr>
<td>04/17/2017 04:55 pm</td>
<td>TOMORROW (4/16): join our team &amp; LifeStream for a blood drive</td>
<td><img src="example.png" alt="Image" /></td>
<td>$</td>
<td>160</td>
<td>2</td>
<td>Boost Post</td>
</tr>
<tr>
<td>04/14/2017 02:31 pm</td>
<td>Check for leaks inside and outs</td>
<td><img src="example.png" alt="Image" /></td>
<td>$</td>
<td>24</td>
<td>1</td>
<td>Boost Post</td>
</tr>
<tr>
<td>04/14/2017 01:20 pm</td>
<td>Conservation matters at Desert Water Agency customers use</td>
<td><img src="example.png" alt="Image" /></td>
<td>$</td>
<td>148</td>
<td>0</td>
<td>Boost Post</td>
</tr>
<tr>
<td>04/14/2017 01:00 am</td>
<td>Enjoy the Whitewater Preserve but stay out of the river elsewhere</td>
<td><img src="example.png" alt="Image" /></td>
<td>$</td>
<td>103</td>
<td>17</td>
<td>Boost Post</td>
</tr>
<tr>
<td>04/12/2017 07:30 am</td>
<td>Drive awareness</td>
<td><img src="example.png" alt="Image" /></td>
<td>$</td>
<td>176</td>
<td>3</td>
<td>Boost Post</td>
</tr>
<tr>
<td>04/07/2017 06:00 am</td>
<td>Today, Governor Brown declared the drought emergency officially</td>
<td><img src="example.png" alt="Image" /></td>
<td>$</td>
<td>136</td>
<td>6</td>
<td>Boost Post</td>
</tr>
<tr>
<td>04/05/2017 08:00 am</td>
<td>DWA customers: do this with the help of FreeSprinklerNozzles</td>
<td><img src="example.png" alt="Image" /></td>
<td>$</td>
<td>50</td>
<td>2</td>
<td>Boost Post</td>
</tr>
<tr>
<td>04/03/2017 01:00 am</td>
<td>Small changes can make a big difference. DWA customers can</td>
<td><img src="example.png" alt="Image" /></td>
<td>$</td>
<td>50</td>
<td>1</td>
<td>Boost Post</td>
</tr>
</tbody>
</table>
Total Page Likes as of Today: 991

Net Likes
Net Likes shows the number of new likes minus the number of unlikes.

BENCHMARK
Compare your average performance over time

Unlikes
Organic Likes
Paid Likes
Net Likes
28 day summary with change over previous period

<table>
<thead>
<tr>
<th>Tweets</th>
<th>Retweets</th>
<th>Profile visits</th>
<th>Mentions</th>
<th>Followers</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td></td>
<td>6,627</td>
<td>240</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>930</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

Apr 2017: 26 days saw...

TWEET HIGHLIGHTS

**Top Tweet** earned 598 impressions
Stay efficient out there!
twitter.com/Sammy_Roth/sta...

**Top Mention** earned 4 engagements
Janet Weil
@JanetRWeil Apr 21
Quick, easy way to report #water #waste in Coachella Valley: dwa.org/conservation/w... TY @DWAwater #earthday2017 cc @MyDesert

**Top Follower** followed by 1,106 people
IWV
@IWV @IWV @IWV
IWV provides fact-based evidence showing how free market solutions advance prosperity, freedom, and greater choices. @IWV is the sister organization of @IWF.

**Enrich your Tweets with Twitter Cards**
Using Twitter Cards gives you greater insight into your URL clicks, app installs, and Retweets.
Learn more about using Cards on Twitter