DESERT WATER AGENCY
JUNE 5, 2018

BOARD OF DIRECTORS REGULAR MEETING AGENDA

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

About Desert Water Agency:

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

1. PLEDGE OF ALLEGIANCE

2. EMPLOYEE INTRODUCTIONS — KRAUSE

3. APPROVAL OF MINUTES – May 15, 2018 — CIOFFI

4. GENERAL MANAGER'S REPORT — KRAUSE

5. COMMITTEE REPORTS - A. Executive – May 29, 2018 — CIOFFI
   B. Finance – May 30, 2018 — STUART

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:

   Public Hearing Items (A-C):
   2018/2019 Groundwater Replenishment Assessments

   A. West Whitewater River Subbasin — KRAUSE
      1). Request Adoption of Resolution No. 1179 Making Findings in Fact Pursuant to Section 15.4 of DWA Law for the West Whitewater River Subbasin Replenishment Assessment

      2). Request Adoption of Resolution No. 1180 Levying a Replenishment Assessment for FY 2018/2019

   B. Mission Creek Subbasin
      1). Request Adoption of Resolution No. 1181 Making Findings in Fact Pursuant to Section 15.4 of DWA Law for the Mission Creek Subbasin Replenishment Assessment — KRAUSE

      2). Request Adoption of Resolution No. 1182 Levying a Replenishment Assessment for FY 2018/2019

   C. Garnet Hill Subbasin
      1). Request Adoption of Resolution No. 1183 Making Findings in Fact Pursuant to Section 15.4 of DWA Law for the Garnet Hill Subbasin Replenishment Assessment — KRAUSE

      2). Request Adoption of Resolution No. 1184 Levying a Replenishment Assessment for FY 2018/2019

   D. Request Approval of Resolution No. 1185 Calling for Board Election — BACA

   E. Request Approval of Resolution No. 1186 Notifying County Clerk that Candidates Will Pay for Publication of Statement of Qualification — BACA

   F. Request Board Action Regarding Claim Filed by Celeste Garcia — KRAUSE

   G. Request Board Action Regarding Claim Filed by Benita Silva — KRAUSE

   H. Request Approval and Adoption of 2018 – 2021 DWAEA MOU and Salary Schedules — HOPPING

   I. Request Approval to Execute Agreement with Department of Water Resources for Preconstruction Planning Costs of the California WaterFix — KRAUSE

   J. Request Approval Authorizing General Manager to Participate with San Gorgonio Pass GSA and Verbenia GSA to Produce a Groundwater Sustainability Plan — KRAUSE

8. ITEMS FOR DISCUSSION
   - A. Director's Report on CSDA Legislative Days Attendance — BLOOMER
   - B. State Water Contractors' Meeting – May 17, 2018 — RIDDELL
   - C. 2018/2019 Operating, General and Wastewater Budgets (DRAFT) — KRIEGER
   - D. Rebate Program Update FY 2018-2019 (PPT) — METZGER
   - E. Spring Crest Water Company — KRAUSE

9. OUTREACH & CONSERVATION — METZGER
   - 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 LEGAL COUNSEL – EXISTING LITIGATION
    Pursuant to Government Code Section 54956.9 (d) (1)
    Name of Case: Albrecht et al vs. County of Riverside, Case No. PSC 1501100

    E. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION
    Pursuant to Government Code Section 54956.9 (d) (1)
    Name of Case: Abbey et al vs. County of Riverside, Case No. RIC 1719093

12. RECONVENE INTO OPEN SESSION – REPORT FROM CLOSED SESSION

13. ADJOURN

Desert Water Agency
REGULAR BOARD MEETING
June 5, 2018

The following employees are scheduled to attend and be introduced to the Board of Directors at the June 5, 2018 Board Meeting:

Name	Classification/Department
Chris Dolan October 16, 2017	Snow Creek Security
Bobby Beatty October 30, 2017	Water Service Worker I

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

3

May 15, 2018

Attendance

DWA Board:	James Cioffi, President	)
	Joseph K. Stuart, Vice President	)
	Kristin Bloomer, Secretary-Treasurer	)
	Patricia G. Oygar, Director	)
	Craig A. Ewing, Director	)
DWA Staff:	Mark S. Krause, General Manager	)
	Steve Johnson, Asst. General Manager	)
	Martin S. Krieger, Finance Director	)
	Sylvia Baca, Asst. Secretary of the Board	)
	Ashley Metzger, Outreach & Cons. Mgr.	)
	Kris Hopping, Human Resources Manager	)
	Esther Saenz, Accounting Supervisor	)
Consultant:	Michael T. Riddell, Best Best & Krieger	)
	David Scriven, Krieger & Stewart	)
Public:	David Freedman, P.S. Sustainability Comm.	)

Pledge of Allegiance

18106. President Cioffi opened the meeting at 8:00 a.m. and asked everyone to join him in the Pledge of Allegiance.

Employee Introductions

18107. President Cioffi called upon General Manager Krause to introduce the new employees.

Mr. Krause introduced newly hired employees: Cleo Cortina (Equipment Operator I), Kyle Finch and Elmer Sandoval (Water Service Worker I), Construction department.

Approval of 05/01/18 Regular Board Mtg. Minutes

18108. President Cioffi called for approval of the May 1, 2018 Regular Board meeting minutes.

Vice President Stuart moved for approval. After a second by Director Ewing, the minutes were approved as written. (Director Oygar abstained due to her absence).

18109. President Cioffi called upon General Manager Krause to provide an update on Agency operations. **General Manager's Report**

Mr. Krause stated on April 30 at 1:30 a.m. stand-by personnel responded to a large leak at 2665 E. Palm Canyon Drive. It was a 2-inch polyethylene service line that split open a 3-foot section, undermining the road. Leak – 2665 E. Palm Canyon Dr.

Mr. Krause stated on May 1 at approximately 10:30 p.m. stand-by personnel responded to a large leak on Easmor Circle. There were 2 blowouts about a half-inch each. The water main had to be throttled down and repairs were made. Leak – Easmor Circle

Mr. Krause noted that MWD is currently delivering 250 cfs to Whitewater. The water being delivered May thru June is for CVWD's 35,000 acre-feet QSA water. If the state allocation increases to 35%, SWP Table A water will be delivered July thru August. If the allocation increases to 40%, CRA deliveries will continue thru September and are projected to exceed the 35 total acre-feet and SWP exchange obligations by approximately 30,000 acre-feet. Whitewater Hydro was scheduled to start up on May 14, but had to be postponed due to some silt issues at CVWD intakes. Water Deliveries Update

Continuing his report, Mr. Krause provided an overview of the SWP May 2018 Water Quality report. The State Water supply has different water quality issues than the Colorado River Water supply that the Agency should be aware of when comparing water supply quality. SWP May 2018 Water Quality Report

Mr. Krause explained that 3 months ago, the San Gorgonio Pass Groundwater Sub-basin (SGPGWS) GSA's applied for grant funding to install monitoring wells at three new sites for inter-basin monitoring. On April 4, DWR announced the final awards to 78 grant applications totaling $85.8 million. The SGPGWS Sub-basin GSA's were awarded $2 million. Half of the funding will go to the monitoring wells installation and the other half to develop a groundwater sustainability plan. No matching funds are required. 2017 San Gorgonio Pass Sub-basin Sustainable Groundwater Planning Grant

Concluding his report, Mr. Krause noted the current system leak data, and meetings and activities he participated in during the past several weeks. System Leak Data, General Manager's Meetings & Activities

18110. President Cioffi noted the minutes for the April 30 Human Resources Committee and Conservation & Public Affairs Committee were provided in the Board's packet. Committee Reports: Human Resources and Conservation & PA 04/30/18

18111. President Cioffi opened the meeting for public input.

Public Input

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

18112. President Cioffi called upon Secretary-Treasurer Bloomer to provide an overview of financial activities for the month of April 2018.

Secretary-Treasurer's Report – April 2018

Secretary-Treasurer Bloomer reported that the Operating Fund received $1,994,823 in Water Sales Revenue, $127,415 in Reclamation Sales Revenue, $1,416 in Snow Creek Hydro Sales from SCE for March 2018 and $81,411 in Advanced Work-Order Deposits. $3,403,161 was paid out in Accounts Payable. Year-to-date Water Sales are 7% over budget, Year-to-date Total Revenues are 12% over budget and Year-to-date Total Expenses are 14% under budget. There were 22,595 active services as of April 30, 2018 compared to 22,582 as of March 31, 2018.

Operating Fund

Reporting on the General Fund, Ms. Bloomer stated that $1,650,600 was received in Property Tax Revenue, $971,214 in Groundwater Assessments, and $397,341 in State Water Project Refunds. $5,148,953 was paid out in State Water Project Charges (YTD $20,110,476) and $1,000,161 paid in Bond Service Payments (2016 Bond Refinance Issue).

General Fund

Reporting on the Wastewater Fund, Ms. Bloomer stated that $3,792 was received in sewer contract payments. There are a total of 45 sewer contracts, with total delinquents of 10 (22%). $99,138 was paid out in Accounts Payable.

Wastewater Fund

18113. President Cioffi asked Assistant General Manager Johnson to present staff's request for authorization to execute land lease agreement with Wildcat I Energy Storage, LLC.

Items for Action: Request Authorization to Execute Land Lease Agrmt./Wildcat I

Mr. Johnson stated that Wildcat I Energy Storage, LLC is seeking a land lease agreement over a 100' by 100' portion of the Agency's property to install and maintain containerized batteries, transformers and electrical equipment for an SCE project. The agreement includes a 12' wide ingress/egress access road and requires the lessee install a chain link fence with screening around the equipment perimeter, as approved by the Agency.

Mr. Johnson explained that similar to a lease agreement that the Agency has with the Verizon cell tower located on the Agency's back lot, the lease shall be for 10 years with an automatic extension of 2 additional 5 year terms. The first year's lease payment is $34,800 with a one-time payment of $5,000 to cover Agency costs associated with the review and preparation of this agreement. After the first year, rent shall increase annually by an amount equal to the greater of 4% or the CPI increase based on the prior 12-month

period. Staff requests Board authorization for the General Manager to execute the land lease agreement.

Action Items: (Cont.) Land Lease Agrmt./Wildcat I Energy

Mr. Krause noted that a letter of intent was sent to Wildcat I Energy, LLC.

Mr. Johnson clarified that the land for this lease agreement is the property recently purchased by the Agency on Dinah Shore Drive.

Director Ewing made a motion to authorize the General Manager to execute the land lease agreement with Wildcat I Energy, LLC. After a second by Vice President Stuart, the motion carried unanimously.

18114. President Cioffi asked General Manager Krause to present staff's request for Board action regarding a claim for damages filed by Raymundo Gonzalez.

Request Board Action Regarding Claim Filed by Raymundo Gonzalez

Mr. Krause explained that this claim is regarding a vehicle accident involving an Agency vehicle that occurred on December 11, 2017. Mr. Gonzalez previously filed a claim for $7,687.69 for a total loss of his 2006 BMW. On March 6, that claim was rejected and sent to the Association of California Water Agency Joint Powers Insurance Agency (ACWA-JPIA) for their handling. Today's claim is for an amount exceeding $25,000 for personal injuries and other damages. Staff recommends that the Board reject this claim and instruct Staff to refer this matter to ACWA-JPIA for their handling.

In response to Vice President Stuart, Mr. Johnson stated that Mr. Gonzalez was not transported to a hospital due to the accident.

Director Ewing made a motion to approve staff's recommendation. After a second by Vice President Stuart, the motion carried unanimously.

18115. President Cioffi called upon General Manager Krause to present the 2018/2019 Groundwater Replenishment Assessments.

2018/2019 Groundwater Replenishment Assessments

Mr. Krause stated at its April 17 meeting, the Board discussed the draft Engineer's report. Today's meeting is intended to allow comments from the public. As indicated in the report, the proposed assessments for all three basins will be set at $140 per acre-foot. Staff recommends a determination be made that funds should be raised by a replenishment assessment, and the Board set the time and place for public hearing on this matter for June 5, 2018 to consider resolutions of findings of fact and levying replenishment assessments for the Fiscal Year 2018/2019. He then asked Mr. Scriven to discussion revisions made since the last meeting.

Action Items: (Cont.) 2018/2019 Groundwater Replenishment Assessments

Mr. Scriven noted the following changes to the report: 1) Definitions section, 2) Missing data is now included, 3) Clarified previous year's rates, and various formatting changes.

Director Oygar moved to approve staff's recommendation. Director Ewing seconded the motion, which carried unanimously.

Discussion Items: April Water Reduction

18116. President Cioffi asked General Manager Krause to report on the April water use reduction figures.

Mr. Krause reported that the Agency and its customers achieved a 20.4% reduction in potable water production during April 2018 compared to April 2013. He noted the cumulative savings June 2016 through current is 17%. He also noted since the Agency began recycling water, it has reclaimed 95,491 acre-feet.

Planning for the Future – Evaluating Demand & Supply Thru 2045

18117. President Cioffi asked General Manager Krause to provide his presentation on Planning for the Future – Evaluating Demand and Supply through 2045.

Mr. Krause provided a PowerPoint presentation depicting the current and forecasted water supply and demand through the year 2045. He noted that Stantec (consultant) was asked to evaluate whether the Agency's current water supply planning is adequate to meet future water supply needs. In general, the analysis shows that the Agency can meet future water demands with the supply projects currently in development.

Directors' Report on ACWA Conference

18118. President Cioffi noted his attendance at the recent ACWA conference in Sacramento where he also attended the ACWA JPIA Board of Directors meeting.

Vice President Stuart also noted his attendance at the ACWA conference.

Directors Comments/Requests

JPA Formed for California WaterFix

18119. Director Ewing noted the recent formation of a Joint Powers Agency in order to build the California WaterFix. Metropolitan Water District, Santa Clara Valley Water District, Alameda County Zone 7 Water Agency and San Bernardino Valley Municipal Water District are the founding members.

Closed Session:
A. Existing Litigation – ACBCI vs. CVWD, et al.
B. Existing Litigation – ACBCI vs. Riverside County
C. Existing Litigation – MSWD vs. DWA
D. Real Property Negotiators -

18120. At 9:48 a.m., President Cioffi convened into Closed Session for the purpose of Conference with Legal Counsel, (A) Existing Litigation, pursuant to Government Code § 54956.9 (d) (1), Agua Caliente Band of Cahuilla Indians vs. Coachella Valley Water District, et al; (B) Existing Litigation, pursuant to Government Code § 54956.9 (d) (1), ACBCI vs. County of Riverside, et al; (C) Existing Litigation, pursuant to Government Code § 54956.9 (d) (1), Mission Springs Water District vs. Desert Water

Closed Session: (Cont.)

Agency; and (D) Conference with Real Property Negotiators, Pursuant to Government Code § 54956.8, APN No. 677-420-024, Agency Negotiators: Mark S. Krause and Steve Johnson, Negotiating Parties, City of Palm Springs, Under Negotiation: Price and terms.

Reconvene –No Reportable Action

18121. At 11:13 a.m., President Cioffi reconvened the meeting into open session and announced there was no reportable action.

Adjournment

18122. In the absence of any further business, President Cioffi adjourned the meeting at 11:14 a.m.

_____

James Cioffi, President

ATTEST:

_____

Kristin Bloomer, Secretary-Treasurer

GENERAL MANAGER'S REPORT
JUNE 5, 2018

DWA Late Fee Revenues Update

SWP Allocation Update

On May 21, The California Department of Water Resources increased the State Water Project allocation for 2018 to 35 percent — up slightly from the 30 percent allocation in April (an additional 2,787 acre-feet).

Lake Oroville Spillways Construction Update

SACRAMENTO – May 23rd the Department of Water Resources (DWR) provided an update on construction-related activities for the Lake Oroville Spillways Emergency Recovery Project.

Construction on the Main Spillway

- Crews continue to demolish the uppermost 730 feet of the original main spillway chute and have begun using controlled blasting in the center portion of the upper chute.
- In the middle chute, crews completed demolition of the temporary roller-compacted concrete walls, and are now preparing for construction of sub-drains, slab anchors, and structural concrete slabs and walls.
- Work continues on the energy dissipators, or dentates, at the bottom of the main spillway. The dentates are being hydro-blasted and rebuilt with reinforced structural concrete and epoxy-coated steel dowels.
- Crews have begun resurfacing one of the structural concrete slabs that did not meet DWR's quality control standards on the main spillway last year. The slab has a poor surface finish and the top layer is being removed and replaced with structural concrete.

Construction on the Emergency Spillway

- Placement of RCC on the northern half of the splashpad is 78 percent complete.
- Crews continue to clean and prepare the southern half of the splashpad for RCC placement.
- Placement of the cap or grade beam on the underground secant pile cutoff wall is complete. The cap will tie the secant piles together and will be secured to the RCC splashpad.

Snow Creek Filtration Avoidance Update

On Thursday, May 24, the Agency was notified by the CA State Water Resources Control Board that Snow Creek surface water source will be removed from the filtration avoidance classification and therefore will be required to be filtered before serving our customers. The decision was made based on the water quality difficulties we have been experiencing due to wildlife and illegal activity that is occurring within the watershed. As a result of this decision, the Agency will have 18 months to install an approved filtration system for Snow Creek water source. The Agency will be permitted to continue using the water source until the filters have been installed, however, if our raw water fecal sample results drop below a 90% negative over a 6-month period, the Agency will be in violation and will be required to report the violation to the public. We have proposed $2.3 million in the 2018/2019 budget for a filtration system that will serve the Snow Creek Village area. Staff has anticipated that filtration will be required and has been working on a design concept with an approved filter manufacturer. Staff will utilize Krieger and Stewart for design drawings and the construction contract.

The Removal of Snow Creek from filtration avoidance classification will also require another filtration facility to be built for water distribution to the Palm Springs Base System. The cost of these facilities have not yet been refined enough for budgeting purposes.

MWD Exchange Water Delivery Update

As of May 25, the Whitewater Hydro plant has generated a total of 240,096 kWh for the month of May, resulting in $21,200 of revenue.

On May 21, 2018, DWR increased the SWP allocation to 35%. With the increase, MWD has revised its water delivery schedule to the valley to include Table A water. The total amount of water scheduled for delivery will be approximately 118,000 acre-feet. The following is a summary of the water to be delivered:

- 35,000 acre-feet of QSA water
- 13,600 acre-feet of Rosedale water
- 67,935 acre-feet of Table A (48,422 CVWD; 19,513 DWA)
- 1,492 acre-feet of Yuba water (1,064 CVWD; 428 DWA)

It is anticipated that approximately 1,660 acre-feet of Table A water will be delivered to the Mission Creek Spreading Basins.

DWR Releases Draft Prioritization of Groundwater Basins Under SGMA: Comment Period Opens Today and Runs Through July 18 – Indio Sub-basin ranked as HIGH Priority

The California Department of Water Resources (DWR) on 5/18/2018, released a draft prioritization of groundwater basins as required by the Sustainable Groundwater Management Act (SGMA). The 2018 SGMA Basin Prioritization is scheduled to be finalized by fall 2018 after a public comment period that starts today and runs through July 18.

SGMA requires local agencies throughout the state to sustainably manage groundwater basins. Under the act, DWR is required to prioritize groundwater basins and direct high- and medium-priority basins to meet a timeline of targets on the path to sustainability. The 2018 SGMA Basin Prioritization released today is a reassessment of the 2016 update of Bulletin 118 Basin Boundaries.

“Sustainably managing groundwater is a critical component of California’s efforts to build a more resilient and reliable water system,” said DWR Director Karla Nemeth. “The Department of Water Resources is committed to working with Groundwater Sustainability Agencies throughout the state to bring basins into sustainability. This prioritization is crucial to that work. We must plan ahead so this vital resource is available for Californians today and in years to come.”

Basin prioritization is the process of classifying basins and subbasins based on a variety of factors identified in the law such as population and number of water wells in a basin. Basins throughout the state are ranked from very-low to high-priority. Basins ranking high- or medium-priority are subject to SGMA.

Of the 517 groundwater basins statewide, the newly released prioritization identifies 109 basins as high- and medium-priority. These 109 basins, including 32 adjudicated basins ranked as low- or very-low priority, account for approximately 98 percent of the groundwater used in California. Under

the 2018 SGMA Basin Prioritization, 14 basins previously ranked as low- or very-low are now ranked as high- or medium-priority. These basins are now subject to SGMA.

The Indio Sub-basin has been reclassified from medium priority to high priority.

Under the 2018 SGMA Basin Prioritization, 38 basins previously ranked as high- or medium-priority are now ranked low- or very-low priority and are no longer subject to SGMA. This includes 24 adjudicated basins that are required to submit annual reports.

Under SGMA, high- and medium-priority basins are required to form Groundwater Sustainability Agencies (GSAs) and develop Groundwater Sustainability Plans (GSPs). When the 2018 SGMA Basin Prioritization is made final, the basins newly subject to SGMA must form GSAs within two years and adopt GSPs within five years or they must develop an approved alternative plan.

Low or very-low priority basins are not subject to SGMA but are encouraged to form GSAs and GSPs, update existing groundwater management plans, and coordinate with adjacent basins to develop a new groundwater management plan. DWR will conduct public meetings to gather additional data and information on the proposed prioritization.

Indio Sub-basin Scoring Summary

		2018		2014	
	Description	Score	Range	Score	Range
Component 1	Population/Area (mi^2)	2	0 to 5	2	0 to 5
Component 2	Rate of Current and projected population growth	5	0 to 5	5	0 to 5
Component 3	Number of Public Supply wells/Area (mi^2)	3	0 to 5	3	0 to 5
Component 4	Number of Production wells/Area (mi^2)	3	0 to 5	0.75	0 to 5
Component 5	Irrigated Acres/Area (mi2)	2	0 to 5	3	0 to 5
Component 6a	Groundwater Use (Acre-Ft)/Area (acre)	5	0 to 5	4	0 to 5
Component 6b	Total Water Supply met by Groundwater	3	0 to 5	3	0 to 5
	Component Score (average a&b)	4	0 to 5	3.5	0 to 5
Component 7a	Groundwater Level Decline	7.5	0 or 7.5		
Component 7b	Documented Subsidence	10	3.75 or 10		
Component 7c	Documented Saline Intrusion	0	0 or 5		
Component 7d	Documented Water Quality Degradation	1	0 to 5		
	Component Score	4	0 to 5	2	1 to 5
Component 8a	Adverse impacts on local habitat and stream flows	1	0 to 2		
Component 8b	"Other information determined to be relevant" at Basin Level	0	0 or 5		
Component 8c&d	"Other information determined to be relevant" at Statewide Level	FALSE	TRUE or FALSE		
	Component Score	1	0 to 42	0	-5 to 5
	TOTAL	24	0 to 42	19.25	0 to 40

Indio Sub-basin Scoring Summary
(Cont.)

Ranking	Scoring Brackets
Very Low	<=7
Low	8-14
Medium	15-21
High	>21

Preliminary Total Water Storage Investment Program Scores Released -

The Sites Project is one step closer to early funding. On Friday, May 25 staff for the California Water Commission released preliminary total Water Storage Investment Program scores, moving Proposition 1 funding applicants closer to implementation and furthering the will of California voters who overwhelming called for new storage. The Sites Project received a preliminary total score of 61 points (out of a 100-point maximum) for its public benefits (flood control, refuge water supplies, Delta smelt actions, and recreation), relative environmental values, resiliency and implementation risk.

Although the Sites Project Authority (Authority) believes the benefits Sites would provide to salmon remain significantly undervalued, the project is still eligible for more than $900 million in state funding. The Authority looks forward to continued work with the Water Commission and staff to finalize the scoring results and secure early funding later this summer.

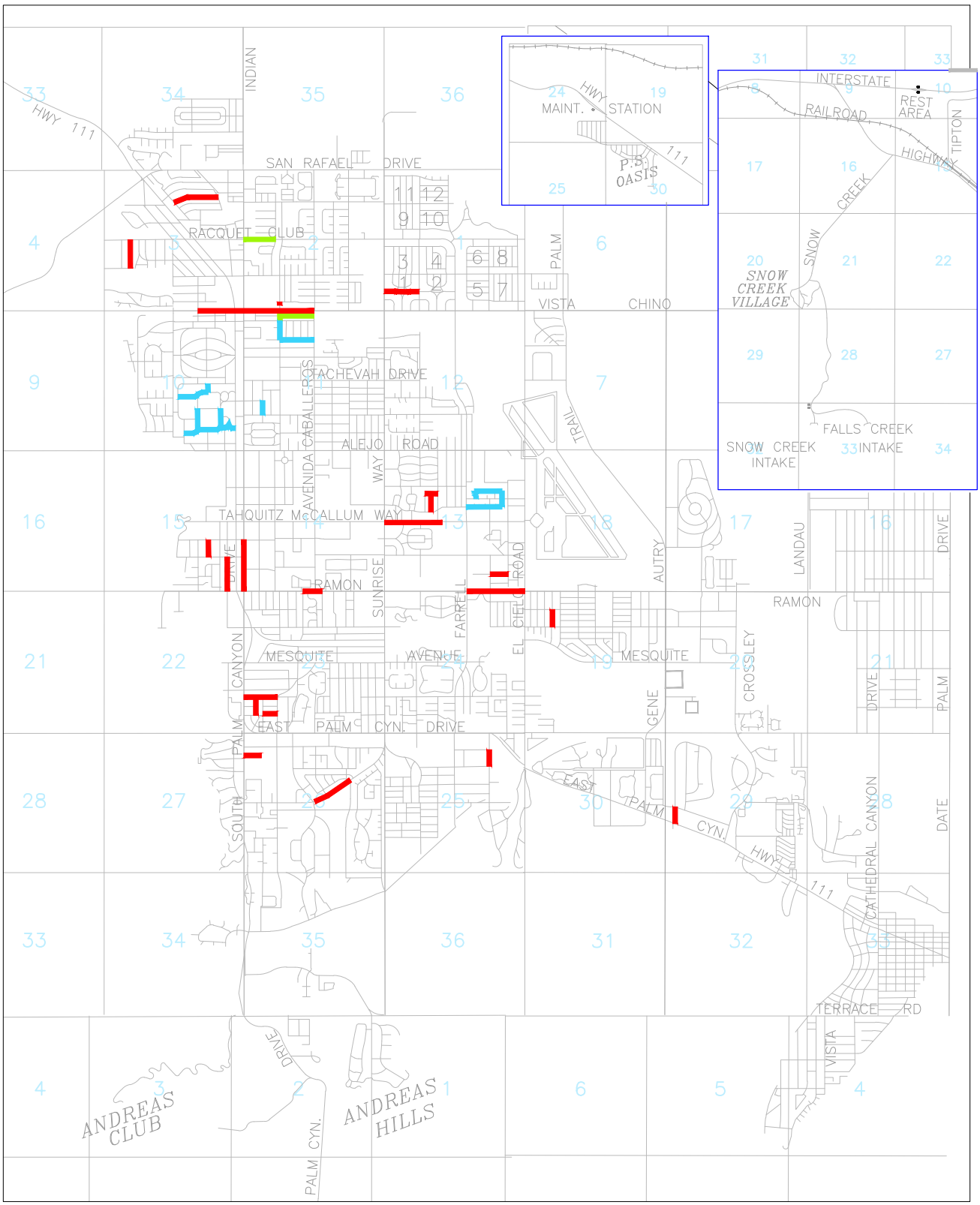
SYSTEM LEAK DATA

(PERIOD BEGINNING MAY 9, 2018 THRU MAY 29, 2018)

STREET NAME	QUARTER SECTION	NUMBER OF LEAKS
VISTA CHINO (20")	4410NE	5
CHIA RD	4411NW	4
DESERT PARK AVE	4401SE	4
RACQUET CLUB RD (8")	4402NW	3
AVENIDA PALOS VERDES	4411SW	3
PLAIMOR AVE	4413NE	3
COTTONWOOD RD	4411NW	2
PRESCOTT DR	4410SE	2
VIA MIRALESTE	4411NW	2
DEBBY DR	4413NW	2
BROADMOOR DR (10")	4529SW	2
MERITO PL	4410SE	1
EASMOR CIR	4413NE	1
ANDREAS RD	4413NE	1
HERMOSA PL	4410SE	1
CAHUILLA RD (5")	4410SE	1
AIRLANE DR	4413NE	1
MISSION DR	4410SE	1
BELARDO RD	4415SE	1
CANYON ROCK RD	4426NW	1
LA VERNE WY	4426NE	1
TERRY LN	4413NW	1
PICO RD	4403NE1	1
MOUNTAIN VIEW RD	4519NW	1
VIA VAQUERO	4413SE	1
TAHQUITZ CANYON WY (8")	4413SW	1
LUGO RD	4415SE	1
RAMON RD (12")	4424NE	1
VIA SOLEDAD	4423SW	1
JANIS DR	4403SW	1
SONORA RD	4423SW	1
RAMON RD	4423NE	1
ARABY DR	4425NE	1
AVE HOKONA	4423SW	1
INDIAN CANYON DR	4414SW	1
VIA MIRALESTE	4402SW	1
TOTAL LEAKS IN SYSTEM:		**57**

* Streets highlighted in green are scheduled to be replaced as part of the **2017/2018 Replacement Pipeline Project**

* Streets highlighted in blue are being proposed as part of the **2018/2019 Replacement Pipeline Project**



SYSTEM LEAKS

(Period beginning May 9 2018 thru May 29, 2018)

DESERT WATER AGENCY

PALM SPRINGS, CALIFORNIA

LEGEND

- LEAK(S) RECORDED
- LEAK(S) RECORDED; INCLUDED IN 2017/18 REPLACEMENT PIPELINES
- LEAK(S) RECORDED; INCLUDED IN PROPOSAL FOR 2018/19 REPLACEMENT PIPELINES

DWG. BY	DATE	SCALE
SR	5/18	NTS

EXHIBIT "A"

General Manager's Meetings and Activities:

Meetings:

05/15/18	DWA Bi-Monthly Board Meeting	DWA
05/16/18	SWC Delta Committee Meeting	SAC
05/16/18	SWC Policy Meeting	SAC
05/17/18	SWC Monthly Board Meeting	SAC
05/17/18	SWC SFCWA Board Meeting	SAC
05/17/18	SWC Sites Reservoir Participation Meeting	SAC
05/18/18	Sites Reservoir Committee Monthly Board Meeting	MAX
05/21/18	DWA Staff/I.S./S.C. Security Weekly Meetings	DWA
05/21/18	MWD Exchange Agreement Coordination Monthly Meeting	Conf. Call
05/22/18	DWA 12 MG Reservoir Site Inspection	DWA
05/23/18	Indio SGMA Meeting	Coachella
05/24/18	CVWD/DWA–BLM Permit Renewal WW Spreading Basins	Conf. Call
05/28/18	DWA Staff/I.S./S.C. Security Weekly Meetings	DWA
05/2918	DWA Executive Committee Meeting	DWA
05/30/18	DWA Finance Committee Meeting	DWA
06/01/18	DWA CPR Training	DWA
06/04/18	DWA Staff/I.S./S.C. Security Weekly Meetings	DWA

Activities:

1) Outreach Talking Points – KESQ
2) Whitewater Hydro – Automatic Re-start
3) State and Federal Contractors Water Authority and Delta Specific Project Committee (Standing)
4) ACBCI Section 14 Facilities & Easements
5) Lake Oroville Spillway Damage
6) Replacement Pipelines 2018-2019
7) CWF – GAP Funding Agreement and Finance JPA Agreement
8) DWA/CVWD/MWD Operations Coordination/Article 21/Pool A/Pool B/Yuba Water
9) DWA/CVWD/MWD Agreements Update
10) SGMA Alternative Plans and Bridge Documents
11) SWP 2018 Water Supply
12) ACBCI Lawsuits
13) Lake Perris Dam Remediation
14) Section 14 Pipeline Easements
15) DOI Regulation
16) Repair of Facility Access Roads Damaged in the September 10 Storm (Araby)
17) Whitewater Hydro Operations Coordination with Recharge Basin O&M
18) Multi-Agency Rate Study
19) SGMA Tribal Stakeholder Meetings
20) Whitewater Spreading Basins – BLM Permits
21) Lake Perris Dam Seepage Recovery Project Participation

Activities:
(Cont.)

22) Cal Waterfix Cost Allocation
23) DWA Surface Water Filtration Feasibility Study
24) MCSB Delivery Updates
25) Well 6 Meaders Cleaners RWQB Meetings
26) DWA Budgets
27) DWAEA Benefits Negotiations
28) Engineer's Report for Replenishment Assessment Charges
29) SGMA – Indio Subbasin Classification
30) SGMA – San Gorgonio Pass Subbasin
31) DWA Annual Water Quality Report
32) LAFCO Questionnaire
33) IRWM Region Boundary
34) Large Water System 2017 Annual Report to the Drinking Water Program

Minutes
Executive Committee Meeting
May 29, 2018

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

1. Discussion Items

A. Review Agenda for June 5, 2018 Regular Board Meeting
The proposed agenda for the June 5, 2018 meeting was reviewed.

B. Expense Reports
The April expense reports were reviewed.

2. Other - None

3. Adjourn

Minutes
Finance Committee Meeting
May 30, 2018

Directors Present: Joseph K. Stuart, Kristin Bloomer

Staff Present: Mark Krause, Martin Krieger, Esther Saenz

Discussion Items

1. Proposed 2018/2019 Operating Fund Budget
   The Committee reviewed the Capital budget, estimated water and recycled water sales revenue, rate adjustments, maintenance expenses and reserves.

2. Proposed 2018/2019 General Fund Budget
   The Committee reviewed the groundwater replenishment rate adjustment and estimated revenue, property tax assessment and revenue estimates; State Water Project capital charges and expenses, California WaterFix costs and reserves. The proposed capital budget was also reviewed.

3. Proposed 2018/2019 Wastewater Fund Budget
   The Committee reviewed the monthly sewer fixed charge adjustment and the proposed capital budget.

4. Other
   The Committee reviewed the Reserve Police (Annual review).

Adjourn

7-A
7-B
7-C

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

JUNE 5, 2018

RE: GROUNDWATER REPLENISHMENT ASSESSMENT
WEST WHITEWATER RIVER SUBBASIN, MISSION CREEK SUBBASIN AND GARNET HILL SUBBASIN (PUBLIC HEARING)

Following presentation of the Engineer's Report on the Groundwater Replenishment and Assessment Program for 2018/2019 during the Board's May 15, 2018 meeting, a determination was made that funds should be raised by a replenishment assessment, and the Board set the time and place for a public hearing on the matter.

As indicated in the Replenishment Reports, the proposed West Whitewater, Mission Creek and Garnet Hill Groundwater Replenishment Assessment will be set at $140 per acre-foot.

A copy of the Notice of today's Public Hearing was sent to all pumpers on May 16, 2018 advising them of the scheduled public hearing, as well as the recommended replenishment assessment to be considered. The Notice of Public Hearing, setting the hearing date for today, was published in The Public Record on May 1, 2018.

On May 15, 2018, the Agency held a meeting on the proposed West Whitewater, Mission Creek and Garnet Hill Groundwater Replenishment Assessments.

A comparison of historic and proposed groundwater replenishment rates for Desert Water Agency (DWA) and Coachella Valley Water District (CVWD) is shown in Exhibit 7 of the Engineer's report (see attached).

Staff recommends adoption of:

1. West Whitewater River Subbasin - Resolution No. 1179, making findings of fact relevant and material to levying the replenishment assessment within the West Whitewater River Subbasin.

2. West Whitewater River Subbasin – Resolution No. 1180, levying the 2018/2019 West Whitewater River Groundwater Replenishment Assessment in the amount of $140.00 per acre-foot.

3. Mission Creek Subbasin – Resolution No. 1181, making findings of fact relevant and material to levying the replenishment assessment within the Mission Creek Subbasin.

4. Mission Creek Subbasin – Resolution No. 1182, levying the 2018/2019 Mission Creek Groundwater Replenishment Assessment in the amount of $140.00 per acre-foot.

5. Garnet Hill Subbasin – Resolution No. 1183, making findings of fact relevant and material to levying the replenishment assessment with the Garnet Hill Subbasin.

6. Garnet Hill Subbasin – Resolution No. 1184, levying the 2018/2019 Garnet Hill Groundwater Replenishment Assessment in the amount of $140.00 per acre-foot.

EXHIBIT 7
DESERT WATER AGENCY AND COACHELLA VALLEY WATER DISTRICT
COMPARISON OF HISTORIC AND PROPOSED GROUNDWATER REPLENISHMENT
ASSESSMENT RATE FOR THE WEST WHITEWATER RIVER AND MISSION CREEK SUBBASIN AOBS

YEAR	DWA		CVWD WEST WHITEWATER		CVWD MISSION CREEK	
	$/AF	% INCREASE	$/AF	% INCREASE	$/AF	% INCREASE
78/79	$6.81	---	No Assessment	---	No Assessment	---
79/80	$9.00	32%	No Assessment	---	No Assessment	---
80/81	$9.50	6%	$5.66	---	No Assessment	---
81/82	$10.50	11%	$7.43	31%	No Assessment	---
82/83	$21.00	100%	$19.82	167%	No Assessment	---
83/84	$36.50	74%	$33.23	68%	No Assessment	---
84/85	$37.50	3%	$34.24	3%	No Assessment	---
85/86	$31.00	-17%	$21.81	-36%	No Assessment	---
86/87	$21.00	-32%	$19.02	-13%	No Assessment	---
87/88	$22.50	7%	$19.55	3%	No Assessment	---
88/89	$20.00	-11%	$15.96	-18%	No Assessment	---
89/90	$23.50	18%	$19.66	23%	No Assessment	---
90/91	$26.00	11%	$23.64	20%	No Assessment	---
91/92	$31.75	22%	$25.66	9%	No Assessment	---
92/93	$31.75	0%	$28.23	10%	No Assessment	---
93/94	$31.75	0%	$31.05	10%	No Assessment	---
94/95	$31.75	0%	$34.16	10%	No Assessment	---
95/96	$31.75	0%	$37.58	10%	No Assessment	---
96/97	$31.75	0%	$37.58	0%	No Assessment	---
97/98	$31.75	0%	$42.09	12%	No Assessment	---
98/99	$31.75	0%	$47.14	12%	No Assessment	---
99/00	$31.75	0%	$52.80	12%	No Assessment	---
00/01	$33.00	4%	$59.14	12%	No Assessment	---
01/02	$33.00	0%	$66.24	12%	No Assessment	---
02/03	$35.00	6%	$72.86	10%	$59.80	---
03/04	$35.00	0%	$72.86	0%	$59.80	0%
04/05	$45.00	29%	$78.86	8%	$59.80	0%
05/06	$50.00	11%	$78.86	0%	$59.80	0%
06/07	$63.00	26%	$83.34	6%	$65.78	10%
07/08	$63.00	0%	$91.67	10%	$72.36	10%
08/09	$72.00	14%	$93.78	2%	$76.60	6%
09/10	$72.00	0%	$102.45	9%	$87.56	14%
10/11	$82.00	14%	$102.45	0%	$89.75	3%
11/12	$82.00	0%	$107.57	5%	$98.73	10%
12/13	$92.00	12%	$110.26	3%	$98.73	0%
13/14	$92.00	0%	$110.26	0%	$98.73	0%
14/15	$102.00	11%	$110.26	0%	$98.73	0%
15/16	$102.00	0%	$112.00	2%	$112.00	13%
16/17	$102.00	0%	$128.80	15%	$123.20	10%
17/18	$120.00	18%	$143.80	12%	$135.52	10%
18/19	$140.00 *	17%	$143.80 *	0%	$135.52 *	0%

* Proposed replenishment assessment rate

RESOLUTION NO. 1179

RESOLUTION OF THE BOARD OF DIRECTORS OF DESERT WATER AGENCY MAKING FINDINGS OF FACT RELEVANT AND MATERIAL TO THE LEVY OF A REPLENISHMENT ASSESSMENT PURSUANT TO DESERT WATER AGENCY LAW

WEST WHITEWATER RIVER SUBBASIN

WHEREAS, this Board has called and conducted a public hearing pursuant to statute in regard to the levy of a replenishment assessment within a portion of the Desert Water Agency for the 2018-2019 fiscal year; and

WHEREAS, it appears to this Board that such an assessment should be levied based upon the following findings material and relevant to such levy;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Desert Water Agency that this Board finds:

1. Cumulative overdraft conditions exist within that portion of the West Whitewater River Subbasin of the Upper Coachella Valley lying within the boundaries of the Desert Water Agency; therefore, there is need for groundwater replenishment to arrest or reduce cumulative groundwater overdraft.

2. There is need to levy a replenishment assessment (charge) for fiscal year 2018-2019 upon groundwater extractions within the aforementioned portion of the West Whitewater River Subbasin or surface water diversions from streams which would naturally replenish such portion of the West Whitewater River Subbasin to defray the costs of groundwater replenishment.

3. Such groundwater replenishment assessment (charge) shall apply to all water production, both groundwater extractions and surface water diversions within the Area of Benefit, at a uniform rate in dollars per acre foot.

4. Pursuant to statute, the Area of Benefit is hereby delineated as that portion of the West Whitewater River Subbasin of the Upper Coachella Valley lying within the boundaries

of the Desert Water Agency (See Figure 2 in "***Engineer's Report on Groundwater Replenishment and Assessment Program for the West Whitewater River, Mission Creek and Garnet Hill Subbasins – Desert Water Agency 2018-2019***"), and those areas within the Agency from which diversions are made from streamflow which would replenish naturally such portion of the West Whitewater River Subbasin. The reason for delineation of this Area of Benefit is that all producers therein, benefit from the groundwater replenishment program now being carried on by the Agency.

5. Extractions of groundwater of 10 acre feet or less per year are excluded from this process, and are exempted from the levy of any replenishment assessment pursuant to Section 15.4(g) of the Desert Water Agency Law. Diversions which do not diminish streamflow in excess of 10 acre feet per year shall also be excluded.

6. This Agency plans to take its 2018-2019 Table A Water Allocation under its State Water Project Contract and to exchange such water for other imported water to be used for replenishment purposes.

7. Pursuant to Section 15.4(f) of the Desert Water Agency Law, the maximum permissible replenishment assessment rate for State Water Project water for the 2018-2019 fiscal year, based on the Agency's estimated applicable State Water Project charges of $9,488,016 and estimated assessable production within all the West Whitewater River, Mission Creek and Garnet Hill Subbasins of 44,270 acre feet, is $214.32 per acre foot.

8. Pursuant to the provisions of the 2014 Water Management Agreement between the Agency and the Coachella Valley Water District, the effective replenishment assessment rate for State Water Project water for the 2018-2019 fiscal year, based on the Agency's estimated allocated State Water Project charges for its Table A Water Allocation of $8,659,340 and estimated assessable production within the West Whitewater River, Mission Creek and Garnet Hill Subbasins of 44,270 acre feet is $196 per acre foot.

9. Pursuant to Sections 15.4(b) and 15.4(f) of the Desert Water Agency Law, the replenishment assessment in any given year may include costs of purchasing, transporting, and spreading the exchange water to be used for replenishment. The 2018-2019 replenishment

assessment rate includes a credit of $56 per acre foot for discretionary reductions for the West Whitewater River Subbasin.

10. Pursuant to the above provisions, the 2018-2019 replenishment assessment rate is $140 per acre foot.

ADOPTED this 5th day of June, 2018.

_____
James Cioffi, President
Board of Directors

ATTEST:

_____
Kristin Bloomer, Secretary-Treasurer
Board of Directors

RESOLUTION NO. 1180

RESOLUTION OF THE BOARD OF DIRECTORS OF DESERT WATER AGENCY LEVYING A WATER REPLENISHMENT ASSESSMENT FOR THE FISCAL YEAR 2018-2019 FOR THE PURPOSE OF REPLENISHING GROUNDWATER SUPPLIES

WHITEWATER RIVER SUBBASIN

WHEREAS, Section 15.4 of the Desert Water Agency Law provides for the levy of water replenishment assessment (charge) upon the extraction of groundwater, or the diversion of surface supplies which would naturally replenish groundwater supplies; and

WHEREAS, the Board has followed and completed the statutory procedures required for the levy of such water replenishment assessment, including the adoption by resolution of specific findings of fact on all matters relevant and material to the purpose for which a water replenishment assessment may be levied.

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

1. The Board does hereby levy a water replenishment assessment upon all water produced during the 2018-2019 fiscal year from within the area of benefit as hereinafter determined.

2. The area of benefit is hereby determined to be that portion of the West Whitewater River Subbasin lying within the boundaries of the Desert Water Agency (See Figure 2 in "**Engineer's Report on Groundwater Replenishment and Assessment Program for the West Whitewater River, Mission Creek and Garnet Hill Subbasins - Desert Water Agency, 2018-2019**"), and those areas within the Agency from which diversions are made from streamflow which would replenish naturally such portion of the West Whitewater River Subbasin. Water production shall include both groundwater extractions and surface water diversions.

3. The water replenishment assessment in such area of benefit shall be at the rate of $140.00 per acre foot. The water replenishment assessment shall be due and payable on a quarterly basis, and shall be paid within 30 days after the end of each quarter ending September 30, December 31, March 31, and June 30.

4. The General Manager of the Agency shall give notice of the levy of this water replenishment assessment, and shall provide the necessary forms for production statements, as required by Sections 15.4(h) and 15.4(i) of the Desert Water Agency Law.

5. Minimal production, either groundwater extractions of 10 acre feet or less per year, or streamflow diversions which do not diminish the flow in excess of 10 acre feet per year, shall be exempt from any water replenishment assessment.

ADOPTED this 5th day of June, 2018.

_____
James Cioffi, President
Board of Directors

ATTEST:

_____
Kristin Bloomer, Secretary-Treasurer
Board of Directors

RESOLUTION NO. 1181

A RESOLUTION OF THE BOARD OF DIRECTORS OF DESERT WATER AGENCY MAKING FINDINGS OF FACT RELEVANT AND MATERIAL TO THE LEVY OF A REPLENISHMENT ASSESSMENT PURSUANT TO DESERT WATER AGENCY LAW

MISSION CREEK SUBBASIN

WHEREAS, this Board has called and conducted a public hearing pursuant to statute in regard to the levy of a replenishment assessment within a portion of the Desert Water Agency for the 2018-2019 fiscal year; and

WHEREAS, it appears to this Board that such an assessment should be levied based upon the following findings material and relevant to such levy;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Desert Water Agency that this Board finds:

1. Cumulative overdraft conditions exist within that portion of the Mission Creek River Subbasin of the Upper Coachella Valley lying within the boundaries of the Desert Water Agency; therefore, there is need for groundwater replenishment to arrest or reduce cumulative groundwater overdraft.

2. There is need to levy a replenishment assessment (charge) for fiscal year 2018-2019 upon groundwater extractions within the aforementioned portion of the Mission Creek Subbasin or surface water diversions from streams which would naturally replenish such portion of the Mission Creek Subbasin to defray the costs of groundwater replenishment.

3. Such groundwater replenishment assessment (charge) shall apply to all water production, both groundwater extractions and surface water diversions within the Area of Benefit, at a uniform rate in dollars per acre-foot.

4. Pursuant to statute, the Area of Benefit is hereby delineated as that portion of the Mission Creek Subbasin of the Upper Coachella Valley lying within the boundaries of the Desert Water Agency (See Figure 2 in "***Engineer's Report on Groundwater Replenishment and***

Assessment Program for the West Whitewater River, Mission Creek and Garnet Hill Subbasins – Desert Water Agency 2018-2019"), and those areas within the Agency from which diversions are made from streamflow which would replenish naturally such portion of the Mission Creek Subbasin. The reason for delineation of this Area of Benefit is that all producers therein, benefit from the groundwater replenishment program now being carried on by the Agency.

5. Extractions of groundwater of 10 acre feet or less per year are excluded from this process, and are exempted from the levy of any replenishment assessment pursuant to Section 15.4(g) of the Desert Water Agency Law. Diversions which do not diminish streamflow in excess of 10 acre feet per year shall also be excluded.

6. This Agency plans to take its 2018-2019 Table A Water Allocation under its State Water Project Contract and to exchange such water for other imported water to be used for replenishment purposes.

7. Pursuant to Section 15.4(f) of the Desert Water Agency Law, the maximum permissible replenishment assessment rate for State Water Project water for the 2018-2019 fiscal year, based on the Agency's estimated applicable State Water Project charges of $9,488,016 and estimated assessable production within the West Whitewater River, Mission Creek and Garnet Hill Subbasins of 44,270 acre feet, is $214.32 per acre foot.

8. Pursuant to the provisions of the 2014 Water Management Agreement between the Agency and the Coachella Valley Water District, the effective replenishment assessment rate for State Water Project water for the 2018-2019 fiscal year, based on the Agency's estimated allocated State Water Project charges for its Table A Water Allocation of $8,658,340 and estimated assessable production within the West Whitewater River, Mission Creek and Garnet Hill Subbasins of 44,270 acre feet is $196 per acre foot.

9. Pursuant to Sections 15.4(b) and 15.4(f) of the Desert Water Agency Law, the replenishment assessment in any given year may include costs of purchasing, transporting, and spreading the exchange water to be used for replenishment. The 2018-2019 replenishment assessment rate includes a credit of $56 per acre foot for discretionary reductions for the Mission Creek Subbasin.

10. Pursuant to the above provisions, the 2018-2019 replenishment assessment rate is $140 per acre foot.

ADOPTED this 5th day of June, 2018.

_____

James Cioffi, President
Board of Directors

ATTEST:

_____

Kristin Bloomer, Secretary-Treasurer
Board of Directors

RESOLUTION NO. 1182

A RESOLUTION OF THE BOARD OF DIRECTORS OF DESERT WATER AGENCY LEVYING A WATER REPLENISHMENT ASSESSMENT FOR THE FISCAL YEAR 2018-2019 FOR THE PURPOSE OF REPLENISHING GROUNDWATER SUPPLIES

MISSION CREEK SUBBASIN

WHEREAS, Section 15.4 of the Desert Water Agency Law provides for the levy of a water replenishment assessment (charge) upon the extraction of groundwater, or the diversion of surface supplies which would naturally replenish groundwater supplies; and

WHEREAS, the Board has followed and completed the statutory procedures required for the levy of such water replenishment assessment, including the adoption by resolution of specific findings of fact on all matters relevant and material to the purpose for which a water replenishment assessment may be levied.

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

1. The Board does hereby levy a water replenishment assessment upon all water produced during the 2018-2019 fiscal year from within the area of benefit as hereinafter determined.

2. The area of benefit is hereby determined to be that portion of the Mission Creek Subbasin lying within the boundaries of the Desert Water Agency (See Figure 2 in "Engineer's Report on Groundwater Replenishment and Assessment Program for the West Whitewater River, Mission Creek and Garnet Hill Subbasins - Desert Water Agency, 2018-2019"), and those areas within the Agency from which diversions are made from streamflow which would replenish naturally such portion of the Mission Creek Subbasin. Water production shall include both groundwater extractions and surface water diversions.

3. The water replenishment assessment in such area of benefit shall be at the rate of $140.00 per acre foot. The water replenishment assessment shall be due and payable on a quarterly basis, and shall be paid within 30 days after the end of each quarter ending September 30, December 31, March 31, and June 30.

4. The General Manager of the Agency shall give notice of the levy of this water replenishment assessment, and shall provide the necessary forms for production statements, as required by Sections 15.4(h) and 15.4(i) of the Desert Water Agency Law.

5. Minimal production, either groundwater extractions of 10 acre feet or less per year, or streamflow diversions which do not diminish the flow in excess of 10 acre feet per year, shall be exempt from any water replenishment assessment.

ADOPTED this 5th day of June, 2018.

_____
James Cioffi, President
Board of Directors

ATTEST:

_____
Kristin Bloomer, Secretary-Treasurer
Board of Directors

RESOLUTION NO. 1183

A RESOLUTION OF THE BOARD OF DIRECTORS OF DESERT WATER AGENCY MAKING FINDINGS OF FACT RELEVANT AND MATERIAL TO THE LEVY OF A REPLENISHMENT ASSESSMENT PURSUANT TO DESERT WATER AGENCY LAW

GARNET HILL SUBBASIN

WHEREAS, this Board has called and conducted a public hearing pursuant to statute in regard to the levy of a replenishment assessment within a portion of the Desert Water Agency for the 2018-2019 fiscal year; and

WHEREAS, it appears to this Board that such an assessment should be levied based upon the following findings material and relevant to such levy;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Desert Water Agency that this Board finds:

1. Cumulative overdraft conditions exist within that portion of the Garnet Hill Subbasin of the Upper Coachella Valley lying within the boundaries of the Desert Water Agency; therefore, there is need for groundwater replenishment to arrest or reduce cumulative groundwater overdraft.

2. There is need to levy a replenishment assessment (charge) for fiscal year 2018-2019 upon groundwater extractions within the aforementioned portion of the Garnet Hill Subbasin or surface water diversions from streams which would naturally replenish such portion of the Garnet Hill Subbasin to defray the costs of groundwater replenishment.

3. Such groundwater replenishment assessment (charge) shall apply to all water production, both groundwater extractions and surface water diversions within the Area of Benefit, at a uniform rate in dollars per acre-foot.

4. Pursuant to statute, the Area of Benefit is hereby delineated as that portion of the Garnet Hill Subbasin of the Upper Coachella Valley lying within the boundaries of the Desert Water Agency (See Figure 2 in "***Engineer's Report on Groundwater Replenishment and***

Assessment Program for the West Whitewater River, Mission Creek and Garnet Hill Subbasins – Desert Water Agency 2018-2019"), and those areas within the Agency from which diversions are made from streamflow which would replenish naturally such portion of the Garnet Hill Subbasin. The reason for delineation of this Area of Benefit is that all producers therein, benefit from the groundwater replenishment program now being carried on by the Agency.

5. Extractions of groundwater of 10 acre feet or less per year are excluded from this process, and are exempted from the levy of any replenishment assessment pursuant to Section 15.4(g) of the Desert Water Agency Law. Diversions which do not diminish streamflow in excess of 10 acre feet per year shall also be excluded.

6. This Agency plans to take its 2018-2019 Table A Water Allocation under its State Water Project Contract and to exchange such water for other imported water to be used for replenishment purposes.

7. Pursuant to Section 15.4(f) of the Desert Water Agency Law, the maximum permissible replenishment assessment rate for State Water Project water for the 2018-2019 fiscal year, based on the Agency's estimated applicable State Water Project charges of $9,488,016 and estimated assessable production within all the West Whitewater River, Mission Creek and Garnet Hill Subbasins of 44,270 acre feet, is $214.32 per acre foot.

8. Pursuant to the provisions of the 2014 Water Management Agreement between the Agency and the Coachella Valley Water District, the effective replenishment assessment rate for State Water Project water for the 2018-2019 fiscal year, based on the Agency's estimated allocated State Water Project charges for its Table A Water Allocation of $8,659,340 and estimated assessable production within all the West Whitewater River, Mission Creek and Garnet Hill Subbasins of 44,270 acre feet is $196 per acre foot.

9. Pursuant to Sections 15.4(b) and 15.4(f) of the Desert Water Agency Law, the replenishment assessment in any given year may include costs of purchasing, transporting, and spreading the exchange water to be used for replenishment. The 2018-2019 replenishment assessment rate includes a credit of $56 per acre foot for discretionary reductions for the Garnet Hill Subbasin.

10. Pursuant to the above provisions, the 2018-2019 replenishment assessment rate is $140 per acre foot.

ADOPTED this 5th day of June, 2018.

_____

James Cioffi, President
Board of Directors

ATTEST:

_____

Kristin Bloomer, Secretary-Treasurer
Board of Directors

RESOLUTION NO. 1184

A RESOLUTION OF THE BOARD OF DIRECTORS OF DESERT WATER AGENCY LEVYING A WATER REPLENISHMENT ASSESSMENT FOR THE FISCAL YEAR 2018-2019 FOR THE PURPOSE OF REPLENISHING GROUNDWATER SUPPLIES

GARNET HILL SUBBASIN

WHEREAS, Section 15.4 of the Desert Water Agency Law provides for the levy of a water replenishment assessment (charge) upon the extraction of groundwater, or the diversion of surface supplies which would naturally replenish groundwater supplies; and

WHEREAS, the Board has followed and completed the statutory procedures required for the levy of such water replenishment assessment, including the adoption by resolution of specific findings of fact on all matters relevant and material to the purpose for which a water replenishment assessment may be levied.

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

1. The Board does hereby levy a water replenishment assessment upon all water produced during the 2018-2019 fiscal year from within the area of benefit as hereinafter determined.

2. The area of benefit is hereby determined to be that portion of the Garnet Hill Subbasin lying within the boundaries of the Desert Water Agency (See Figure 2 in "Engineer's Report on Groundwater Replenishment and Assessment Program for the West Whitewater River, Mission Creek and Garnet Hill Subbasins - Desert Water Agency, 2018-2019"), and those areas within the Agency from which diversions are made from streamflow which would replenish naturally such portion of the Garnet Hill Subbasin. Water production shall include both groundwater extractions and surface water diversions.

3. The water replenishment assessment in such area of benefit shall be at the rate of $140.00 per acre foot. The water replenishment assessment shall be due and payable on a quarterly basis, and shall be paid within 30 days after the end of each quarter ending September 30, December 31, March 31, and June 30.

4. The General Manager of the Agency shall give notice of the levy of this water replenishment assessment, and shall provide the necessary forms for production statements, as required by Sections 15.4(h) and 15.4(i) of the Desert Water Agency Law.

5. Minimal production, either groundwater extractions of 10 acre feet or less per year, or streamflow diversions which do not diminish the flow in excess of 10 acre feet per year, shall be exempt from any water replenishment assessment.

ADOPTED this 5th day of June, 2018.

_____
James Cioffi, President
Board of Directors

ATTEST:

_____
Kristin Bloomer, Secretary-Treasurer
Board of Directors

DESERT WATER

(760) 323-4971

POST OFFICE BOX 1710
PALM SPRINGS, CALIFORNIA 92263

1200 GENE AUTRY TRAIL SOUTH
PALM SPRINGS, CALIFORNIA 92264

ENGINEER'S REPORT

GROUNDWATER REPLENISHMENT AND ASSESSMENT PROGRAM FOR THE WEST WHITEWATER RIVER SUBBASIN, MISSION CREEK SUBBASIN, AND GARNET HILL SUBBASIN AREAS OF BENEFIT

DESERT WATER AGENCY 2018/2019

MAY 2018

Prepared by

KRIEGER & STEWART
Engineering Consultants
3602 UNIVERSITY AVENUE
RIVERSIDE, CALIFORNIA 92501
(951) 684-6900

David F. Scriven
R.C.E. No. 42922

101-33.42
(DFS/blt)
(REPORTS/101-33P42RPT)

TABLE OF CONTENTS

TABLE OF CONTENTS

Page

CHAPTER I - EXECUTIVE SUMMARY I-1

CHAPTER II - INTRODUCTION II-1

A. The Coachella Valley and Its Groundwater II-1
1. The Coachella Valley II-1
2. The Coachella Valley Groundwater Basin II-2
3. Subbasins and Subareas II-3

B. The Groundwater Replenishment and Assessment Program II-16
1. Water Management Areas II-16
2. Areas of Benefit II-17
3. Water Management Agreements II-18
4. Groundwater Overdraft II-20
5. Groundwater Replenishment II-21
6. Replenishment Assessment II-38

CHAPTER III – WEST WHITEWATER RIVER SUBBASIN MANAGEMENT AREA PRODUCTION AND REPLENISHMENT III-1

A. Groundwater Production III-1
B. Natural Recharge III-1
C. Non-Consumptive Return III-2
D. Artificial Replenishment III-2
E. Groundwater in Storage III-3
F. Overdraft Status III-3

CHAPTER IV - MISSION CREEK SUBBASIN MANAGEMENT AREA PRODUCTION AND REPLENISHMENT IV-1

A. Groundwater Production IV-1
B. Natural Recharge IV-1
C. Non-Consumptive Return IV-2
D. Artificial Replenishment IV-2
E. Groundwater in Storage IV-2
F. Overdraft Status IV-3

Page

CHAPTER V - GARNET HILL SUBBASIN MANAGEMENT AREA PRODUCTION AND REPLENISHMENT V-1

A. Groundwater Production V-1
B. Natural Recharge V-1
C. Non-Consumptive Return V-2
D. Artificial Replenishment V-2
E. Groundwater in Storage V-2
F. Overdraft Status V-2

CHAPTER VI - REPLENISHMENT ASSESSMENT VI-1

A. Actual 2017 Water Production and Estimated 2018/2019 Assessable Water Production VI-3

B. Water Replenishment Assessment Rates VI-4
1. Component Attributable to SWP Table A Water Allocation Charges VI-4
2. Component Attributable to Other Charges and Costs Necessary for Groundwater Replenishment VI-8
3. Proposition 218 Proceedings VI-9
4. Proposed 2018/2019 Replenishment Assessment Rates VI-9

C. Estimated Water Replenishment Assessments for 2018/2019 ..... VI-10

CHAPTER VII - BIBLIOGRAPHY VII-1

FIGURES

Figure 1 Groundwater Subbasin Map showing Portion of Upper Coachella Valley Groundwater Basin and Subbasins and Management Areas Therein
Figure 2 Groundwater Subbasin Map showing Groundwater Recharge Areas of Benefit (Either Direct or Indirect) and Selected Groundwater Wells
Figure 3 Historic and Projected Water Requirements and Water Supplies for the West Whitewater River Subbasin Management Area
Figure 4 Historic and Projected Water Requirements and Water Supplies for the Mission Creek Subbasin Management Area

TABLES

Table 1 Desert Water Agency Historic Reported Water Production for Replenishment Assessment for Desert Water Agency and Coachella Valley Water District – West Whitewater River Subbasin (WWR), Mission Creek Subbasin (MC), and Garnet Hill Subbasin (GH) Management Areas
Table 2 Desert Water Agency Groundwater Replenishment and Assessment Program Estimated West Whitewater River Subbasin, Mission Creek Subbasin, and Garnet Hill Subbasin Areas of Benefit Water Production and Estimated Water Replenishment Assessments 2018/2019
Table 3 Coachella Valley Water District Applicable State Water Project Charges

Table 4 Desert Water Agency Applicable State Water Project Charges
Table 5 Desert Water Agency Estimated Allocated State Water Project Charges for Table A Water (Proportioned Applicable Charges)
Table 6 Desert Water Agency Projected Effective Replenishment Assessment Rates Pursuant to Water Management Agreements between Coachella Valley Water District and Desert Water Agency
Table 7 Desert Water Agency West Whitewater River Subbasin, Mission Creek Subbasin, and Garnet Hill Subbasin Areas of Benefit Historic and Proposed Replenishment Assessment Rates

EXHIBITS

Exhibit 1 West Whitewater River Subbasin Management Area Recharge Quantities and Groundwater Well Hydrographs
Exhibit 2 Mission Creek Subbasin Management Area Recharge Quantities and Groundwater Well Hydrographs
Exhibit 3 Garnet Hill Subbasin Management Area Groundwater Well Hydrographs and Groundwater Recharge Quantities at Whitewater River and Mission Creek Replenishment Facilities
Exhibit 4 Desert Water Agency Mission Creek Subbasin Area of Benefit Historic Volume of Groundwater in Storage
Exhibit 5 Desert Water Agency Water Comparison of Water Production and Groundwater Replenishment West Whitewater River Subbasin (WWR) and Mission Creek Subbasin (MC) Management Areas
Exhibit 6 Desert Water Agency Summary of Deliveries to Metropolitan Water District (MWD) and to Groundwater Replenishment Facilities (AF)
Exhibit 7 Desert Water Agency and Coachella Valley Water District Comparison of Historic and Proposed Groundwater Replenishment Assessment Rate for the West Whitewater River and Mission Creek Subbasin Management Areas

APPENDICES

Appendix A Coachella Valley Monthly and Annual Recorded Precipitation 2017

Appendix B Addendum to Settlement Agreement: Management Area Deliveries (Between Coachella Valley Water District, Desert Water Agency, and Mission Springs Water District)

ABBREVIATIONS

2013-2014 Multi-Year Water Pool ..... MYWP
acre feet per year ..... AF/Yr
Applicable State Water Project Charges ..... Applicable SWP Charges
Area of Benefit ..... AOB
Bay Delta Conservation Plan ..... BDC
California Department of Water Resources ..... CDWR
Coachella Valley Water District ..... CVWD
degrees Fahrenheit ..... °F
Desert Water Agency ..... DWA
Garnet Hill Subbasin ..... GH
Metropolitan Water District of Southern California ..... MWD
Mission Creek/Garnet Hill Water Management Plan ..... MC/GH WMP
Mission Creek Subbasin ..... MC
Mission Springs Water District ..... MSWD
Montgomery Watson Harza ..... MWH
Off-Aqueduct Power Component of the State Water Project Transportation Charge ..... Off-Aqueduct Power Charge
State Water Resources Control Board ..... SWRCB
State Water Project ..... SWP
United States Geological Survey ..... USGS
Variable OMP&R Component of the State Water Project Transportation Charge ..... Variable Transportation Charge
West Whitewater River Subbasin ..... WWR

DEFINITIONS

Term	Definition
Natural Inflow	Water flowing into a groundwater unit from natural sources such as surface water runoff or subsurface underflow from other groundwater units
Natural Outflow	Water flowing out of a groundwater unit by drainage or subsurface underflow into other groundwater units
Net Natural Inflow	Natural Inflow minus Natural Outflow
Production	Either extraction of groundwater from a Management Area or Area of Benefit (including its upstream tributaries), or diversion of surface water that would otherwise naturally replenish the groundwater within the Management Area or Area of Benefit (including its upstream tributaries)
Consumptive Use	Use of groundwater that does not return the water to the groundwater unit from which it was extracted, e.g. evaporation, evapotranspiration, export

Term	Definition
Non-Consumptive Return	Pumped groundwater that is returned to the groundwater unit after pumping, e.g. irrigation return, wastewater percolation, septic tank percolation
Net Production	Production minus Non-Consumptive Return
Assessable Production	Production within an Area of Benefit that does not include groundwater extracted by minimal pumpers and minimal diverters
Minimal Pumper	A groundwater pumper that extracts 10 AF of water or less in any one year
Minimal Diverter	A surface water diverter that diverts 10 AF of water or less in any one year
Gross (Groundwater) Overdraft	Total Net Production in excess of Net Natural Inflow
Net (Groundwater) Overdraft	Gross Groundwater Overdraft offset by artificial replenishment
Cumulative Gross Overdraft	Total Gross Overdraft that has accumulated since the specific year that marks estimated commencement of gross overdraft conditions
Cumulative Net Overdraft	Cumulative Gross Overdraft offset by Cumulative Artificial Replenishment
Whitewater River Subbasin	The entire Whitewater River Groundwater Subbasin as defined by the United States Geological Survey in *Geological Survey Water-Supply Paper 2027* (1974)
Mission Creek Subbasin	The entire Mission Creek Groundwater Subbasin as defined by the United States Geological Survey in *Geological Survey Water-Supply Paper 2027* (1974)
Garnet Hill Subbasin	The entire Garnet Hill Groundwater Subbasin as defined by the United States Geological Survey in *Geological Survey Water-Supply Paper 2027* (1974)
West Whitewater River Subbasin Management Area or WWR Management Area	The westerly portion of the Whitewater River Subbasin plus that portion of the Garnet Hill Subbasin (GH) that lies within CVWD's service area, as specifically defined in Chapter II
West Whitewater River Subbasin Area of Benefit or WWR AOB	The portion of the WWR Management Area that is within DWA's service area and is managed by DWA
CVWD's West Whitewater River Subbasin Area of Benefit or CVWD's WWR AOB	The portion of the WWR Management Area that is within CVWD's service area and is managed by CVWD

Term	Definition
Mission Creek Subbasin Management Area or MC Management Area	The portion of the Mission Creek Subbasin that lies within the service areas of DWA and CVWD, as specifically defined in Chapter II
Mission Creek Subbasin Area of Benefit or MC AOB	The portion of the MC Management Area that is within DWA's service area and is managed by DWA
CVWD's Mission Creek Subbasin Area of Benefit or CVWD's MC AOB	The portion of the MC Management Area that is within CVWD's service area and is managed by CVWD
Garnet Hill Subbasin Management Area or GH Management Area	The portion of the Garnet Hill Subbasin that lies within DWA's service area, as specifically defined in Chapter II
Garnet Hill Subbasin Area of Benefit or GH AOB	Since CVWD considers the portion of the Garnet Hill Subbasin within its service area to be a part of CVWD's WWR AOB, the GH AOB is the same as the GH Management Area

CHAPTER I
EXECUTIVE SUMMARY

CHAPTER I
EXECUTIVE SUMMARY

Since 1973, Coachella Valley Water District (CVWD) and Desert Water Agency (DWA) have been using Colorado River water exchanged for State Water Project (SWP) water to replenish groundwater in the West Whitewater River Subbasin (WWR) and Mission Creek Subbasin (MC) Management Areas of the Coachella Valley Groundwater Basin.

Through the 2017/2018 Engineer's Reports, the WWR Management Area was referred to simply as the Whitewater River Subbasin. However, the Whitewater River Subbasin includes separate groundwater management areas in both the westerly and easterly portions of the Whitewater River Subbasin. Also, the westerly management area has two areas of benefit (AOBs), one managed by DWA and one managed by CVWD. For these reasons, the following terms and definitions are adopted herein and for future Engineer's Reports:

- "Whitewater River Subbasin" – the entire Whitewater River Groundwater Subbasin as defined by the United States Geological Survey
- "West Whitewater River Subbasin Management Area" or "WWR Management Area" – the westerly portion of the Whitewater River Subbasin plus that portion of the Garnet Hill Subbasin (GH) that lies within CVWD's service area, as specifically defined in Chapter II.
- "West Whitewater River Subbasin Area of Benefit" or "WWR AOB" – the portion of the WWR Management Area that is within DWA's service area and is managed by DWA. The portion of the WWR Management Area that is within CVWD's, DWA's service area and is managed by CVWD will be referred to as "CVWD's West Whitewater River Subbasin Area of Benefit" or "CVWD's WWR AOB".

Through the 2015/2016 Engineer's Reports, each of DWA's AOBs in the Western (Upper) Coachella Valley was described in its own separate report. Beginning with the 2016/2017 Engineer's Report, all of DWA's AOBs (Whitewater River Subbasin (now referred to a West Whitewater River Subbasin or WWR), Mission Creek Subbasin or MC, and Garnet Hill Subbasin or GH) have been included in a single report.

Groundwater production continues to exceed natural groundwater replenishment. If groundwater replenishment with imported water (artificial replenishment) is excluded, gross groundwater overdraft (defined herein as groundwater extractions or water production in excess of natural groundwater

replenishment and/or recharge) within the WWR, MC, and GH Management Areas of the Coachella Valley Groundwater Basin (see **Figure 1**) would continue to increase at a steady rate. The five-year average gross overdraft (total net production minus net natural inflow) in the WWR Management Area is currently estimated to be about 87,000 acre feet per year (AF/Yr), while gross overdraft in the MC Management Area is currently estimated at about 6,000 AF/Yr. Supplementing natural groundwater recharge resulting from rainfall runoff with artificial replenishment using imported water supplies is therefore necessary to offset annual and cumulative gross overdraft.

Increases in cumulative overdraft, without artificial replenishment, will result in declining groundwater levels and increasing pump lifts, thereby increasing energy consumption for groundwater extraction. Extreme cumulative overdraft has the potential of causing ground surface settlement, and could also have an adverse impact upon groundwater quality and storage volume. Artificial replenishment offsets annual groundwater overdraft and the concerns associated therewith and arrests or reduces the effects of cumulative groundwater overdraft.

The AOBs for DWA's portion of the groundwater replenishment program are those portions of the Whitewater River Subbasin, MC, and GH and tributaries--including subbasins (San Gorgonio Pass Subbasin), rivers, or streams--which lie within the boundaries of DWA (**Figure 2**). The costs involved in carrying out DWA's groundwater replenishment program are essentially recovered through water replenishment assessments applied to all groundwater and surface water production within the AOB, aside from specifically exempted production.

Desert Water Agency Law defines *production* as "the extraction of groundwater by pumping or any other method within the boundaries of the agency, or the diversion within the agency of surface supplies which naturally replenish the groundwater supplies within the agency and are used therein." The following producers are specifically exempted from assessment: producers extracting groundwater from all three subbasins and upstream tributaries at rates of 10 AF/Yr or less; and producers diverting surface water without diminishing stream flow and groundwater recharge of the subbasins and upstream tributaries by 10 AF/Yr or less. Therefore, *production*, as used herein, is understood as either extraction of groundwater from a Management Area or Area of Benefit (including its upstream tributaries), or diversion of surface water that would otherwise naturally replenish the groundwater within the Management Area or Area of Benefit (including its upstream tributaries). *Assessable production*, as used herein, is understood as production that does not include water produced by minimal pumpers and minimal diverters at rates of 10 AF/Yr or less.

As a result of the implementation of the Mission Creek Groundwater Replenishment Agreement, dated April 8, 2003, between CVWD and DWA to replenish and jointly manage groundwater in the MC, the Mission Springs Water District (MSWD) filed an action in the Superior Court of California challenging the replenishment assessments levied on MSWD groundwater extractions or production. The three parties settled the dispute as documented in a Settlement Agreement and Addendum in December 2004. The Settlement Agreement stipulated that the three parties would form the Mission Creek/Garnet Hill Subbasin Management Committee to collectively discuss water management in the WWR, MC, and GH Management Areas. The three parties also agreed to investigate whether the GH was in fact benefitting from the artificial recharge programs within the WWR and MC Management Areas and to prepare the MC/GH WMP.

The MC/GH WMP determined that, since artificial recharge activities began, the GH has benefitted from artificial recharge in both the westerly portion of the WWR and the MC: the former by means of infiltration from the Whitewater River channel, from subsurface flow across the Garnet Hill Fault from the westerly portion of the WWR into the upper and central portions of the GH, and by retardation of subsurface outflow from the lower portion of the GH during high groundwater levels resulting from recharge operations within the Whitewater River Replenishment Facility; and the latter by means of subsurface flow across the Banning Fault from the MC resulting from recharge operations at the Mission Creek Replenishment Facility, as evidenced by the groundwater contours observed on either side of the Banning Fault.

The MC/GH WMP did not specifically quantify the recharge contributions to the GH from either the westerly portion of the Whitewater River Subbasin or the MC, and stated that hydrologic data for such a determination is currently lacking and, based on data available, it is unclear and uncertain as to the exact relative contribution from these sources to the replenishment of the GH. Regardless, the GH is dependent on both the westerly portion of the WWR and the MC for its groundwater replenishment, both natural and artificial.

The benefits resulting from artificial groundwater infiltration from the Whitewater River channel and subsurface flow of groundwater from the MC and from the westerly portion of the Whitewater River Subbasin is evidenced by the response observed by groundwater levels in wells within the GH. Historic groundwater levels within the GH and historic quantities of imported water delivered to the Whitewater River and Mission Creek Replenishment Facilities are shown in **Exhibit 3**. The rising groundwater levels

correlate with the large quantities of groundwater recharge, particularly in those groundwater wells located in the westerly and central portions of the GH, especially for the periods 1983 through 1987, 1995 through 2000, and 2009 through 2012.

Since the GH benefits from CVWD's and DWA's recharge programs in the WWR and MC Management Areas, CVWD and DWA have the authority to levy replenishment assessment charges on production within the GH under the provisions set forth in the Settlement Agreement.

Because groundwater production continues to exceed natural groundwater replenishment and cumulative groundwater overdraft persists within each subbasin, continued artificial replenishment in the WWR and MC Management Areas is necessary to either eliminate or reduce the effects of cumulative overdraft, and to reduce the resultant threat to the groundwater supply. There are currently no artificial replenishment facilities within the GH.

DWA has requested its maximum 2018 Table A SWP water allocation of 55,750 AF pursuant to its SWP Contract, which was increased from 38,100 AF in 2004 to 50,000 AF in 2005 and to 55,750 in 2010, for the purpose of groundwater replenishment. CVWD plans to do the same with its maximum 2018 Table A water allocation, which was increased in quantity from 23,100 AF in 2003 to 33,000 AF in 2004, to 121,100 AF in 2005, and to 138,350 AF in 2010.

By virtue of the 2003 Exchange Agreement, The Metropolitan Water District of Southern California (MWD) assigned 11,900 AF of its annual Table A allocation to DWA and 88,100 AF of its annual Table A allocation to CVWD; however, MWD retained the option to call-back or recall the assigned annual Table A water allocations, in accordance with specific conditions, in any year. In implementing the 2003 Exchange Agreement, MWD advised CVWD and DWA that it would probably recall the 100,000 AF assigned to the two Coachella Valley agencies from 2005 through 2009. In fact, MWD did recall 100,000 AF in 2005 but has not recalled any water since then. According to communications with MWD management, it is unlikely that MWD will recall any water in the foreseeable future.

According to current projections for 2018, California Department of Water Resources (CDWR) will deliver 35% of Table A water allocation requests, resulting in deliveries of 67,335 AF of Table A water to the Coachella Valley agencies (based on notification from DWR dated January 29, 2018). For 2018, no SWP surplus water under Pool A or Pool B of the Turn-Back Water Pool Program has been offered. It is not likely that any Article 21 water will be available to DWA via MWD for 2018. Up to approximately

100,000 AF of water under the Yuba River Accord is estimated to be available for 2018, of which DWA and CVWD have requested 692 AF and 1,718 AF, respectively. 97,050 AF of Article 56 water carried over from 2017 has already been delivered to the agencies in 2018. In addition, CVWD is anticipated to receive up to approximately 48,603 AF of non-SWP water deliverable to the Whitewater River Replenishment Facility.

The maximum replenishment assessment rate permitted by Desert Water Agency Law for Table A water for the 2018/2019 fiscal year is $214.32/AF. The $214.32 rate is based on estimated Applicable SWP Charges of $9,488,016 (see **Table 5** for DWA applicable charges for 2018 and 2019) and estimated combined assessable production of 44,270 AF for the WWR, MC, and GH Areas of Benefit (estimated for WWR based on the production for 2013 minus 13% for implementation of permanent conservation measures, and based on 2017 production for MC and GH: 34,550 AF within the WWR AOB, 9,250 AF within the MC AOB, and 470 AF within the GH AOB).

The effective replenishment assessment rate for Table A water is based on DWA's estimated Allocated SWP Charges for the current year (based on CDWR's projections for the assessment period) divided by the estimated assessable production for the assessment period, as set forth in **Table 6**. Historically, the estimated assessable production has been based on the assessable production for the previous year; however, the production during 2015 and 2016 was unusually low due to mandatory water conservation measures imposed as a result of the Governor's April 1, 2015 executive order mandating water restrictions on urban water use statewide, and demanding a 32% reduction in water use within DWA. Only a portion of the effects of these severe water restrictions are anticipated to be permanent; therefore, for 2016/2017, DWA elected to estimate assessable groundwater production based on the 2014 assessable groundwater production minus a factor of 10% to account for the effects of permanent water conservation measures. However, since the State urban water use restrictions were based on water usage in 2013 as a baseline, DWA elected, for 2017/2018 and for 2018/2019, to estimate assessable groundwater production based on the 2013 assessable groundwater production minus a factor of 15% for 2017/2018 to account for the effects of permanent water conservation measures. For 2018/2019, DWA elected to use a conservation factor of 13%, and apply the conservation factor only to producers within WWR. Anticipated production within MC and GH is estimated based on 2017 production.

For the 2012/2013 fiscal year, DWA's effective replenishment assessment rate was based on the actual payments made to the SWP by DWA for the previous calendar year divided by the assessable production for that calendar year. This change was made due to a history of variability in the estimated charge

projections published by CDWR in Appendix B of Bulletin 132, which have occasionally diverged significantly from the amounts actually charged by CDWR. However, due to significant quantities of surplus and carryover water from 2011 delivered in 2012, DWA paid significantly higher SWP charges in 2012 than in 2011. It became clear that the variability in the actual payment of effective replenishment assessment rates was no less than the variability previously observed in CDWR's estimated charge projections. Therefore, beginning in 2013/2014, DWA's estimated effective replenishment assessment rate is based on CDWR's projected charges, since carryover and surplus water quantities cannot be projected.

Pursuant to the terms of the Water Management Agreement between CVWD and DWA, and based on DWA's allocated SWP charges amount of $8,659,340 and estimated assessable production of 44,270 AF for the 2018 calendar year (shown in **Table 6** as the estimated assessable production for the 2018/2019 fiscal year), the effective replenishment assessment rate component for Table A water is $195.60/AF for the 2018/2019 fiscal year. This represents a relatively steep increase from the previous year's effective rate of $158/AF. The effective rate increase is the result of an increase in CDWR's estimated SWP reliability factor from 58% to 62% and the Agency's decision to eliminate the use of a reliability factor to account for potential MWD call-backs in the future.

During the Proposition 218 proceedings held in Fall 2016, DWA elected to adopt anticipated rate ranges for fiscal years 2017/2018 through 2020/2021, based on estimated projections of expenses and revenues at the time of adoption. Since rates are anticipated to increase sharply over the next several years and then stabilize, the rate ranges adopted for the transitional period of fiscal years 2017/2018 through 2019/2020 were calculated to incorporate a diminishing deficit, to be recovered in subsequent years. The rate range adopted for the 2018/2019 fiscal year was $120 to $140. It should be noted that at the time these rate ranges were adopted, the rates were being estimated using a lower SWP reliability factor of 58%; and a factor of 35% was being applied to future MWD transfers to account for potential call-back by MWD. Although Proposition 218 was determined in December 2017 by the California Supreme Court to be inapplicable to groundwater pumping fees such as DWA's replenishment assessment, DWA has elected to comply with the rate ranges adopted in the 2016 Proposition 218 proceedings. Therefore, although the 2018/2019 effective rate exceeds the maximum rate of the specified range for 2018/2019, DWA will levy a rate of $140 AF for FY 2018/2019, which is the maximum of the specified range.

At that rate, DWA's replenishment assessment for the entire Replenishment Program will be about $6,197,800, based on estimated assessable production of 44,270 AF (34,550 AF for the WWR AOB,

9,250 AF for the MC AOB, and 470 AF for the GH AOB). Accordingly, DWA will bill approximately $4,837,000 for the WWR AOB, approximately $1,295,000 for the MC AOB, and approximately $65,800 for the GH AOB.

Due to significant increases in the Delta Water Charge beginning in in 2015 that could result in large future increases in the replenishment assessment rate, DWA elected in 2016 to transfer the existing cumulative deficit in the Replenishment Assessment Account to reserve account(s), rather than continue to attempt to recover past deficits by future increases in the replenishment assessment rate. Deficits that result from the current and future assessments will be recovered by adding surcharges, as shown in the "Other Charges and Costs" column for each subbasin in **Table 7**.

It should be noted that there is currently no independent replenishment program for the GH Management Area. Assessment of the GH Management Area production began in the 2015/2016 fiscal year as a result of the MC/GH WMP findings that the GH benefits from artificial replenishment activities in the WWR and MC Management Areas. The estimated assessable production within the GH AOB for the 2018 calendar year is 470 AF, yielding $65,800 in replenishment assessments.

In summary, gross overdraft persists in the westerly portion of the Coachella Valley Groundwater Basin even though groundwater levels have generally stabilized. Cumulative net overdraft (cumulative gross overdraft offset by artificial replenishment) is currently estimated to be approximately 624,000 AF in the WWR Management Area (since 1956) and 105,000 AF in the MC Management Area (since 1978). Thus, there is a continuing need for groundwater replenishment. Even though DWA has requested of CDWR its full SWP Table A allocation of 55,750 AF, CDWR currently (as of May 21, 2018) expects to deliver 35% of this allocation during the coming year, and DWA has elected to adopt a groundwater replenishment assessment rate for 2018/2019 of $140.00/AF.

CHAPTER II
INTRODUCTION

CHAPTER II
INTRODUCTION

A. THE COACHELLA VALLEY AND ITS GROUNDWATER

1. The Coachella Valley

The Coachella Valley is a desert valley in Riverside County, California. It extends approximately 45 miles southeast from the San Bernardino Mountains to the northern shore of the Salton Sea. Cities of the Coachella Valley include Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage, and the unincorporated communities of Thousand Palms, Thermal, Bermuda Dunes, Oasis, and Mecca. The Coachella Valley is bordered on the north by Mount San Gorgonio of the San Bernardino Mountains, on the west by the San Jacinto and Santa Rosa Mountains, on the east by the Little San Bernardino Mountains, and on the south by the Salton Sea.

The Coachella Valley lies within the northwesterly portion of California's Colorado Desert, an extension of the Sonoran Desert. The San Bernardino, San Jacinto, and Santa Rosa Mountains provide an effective barrier against coastal storms, and greatly reduce the contribution of direct precipitation to replenish the Coachella Valley's groundwater basin, resulting in an arid climate. The bulk of natural groundwater replenishment comes from runoff from the adjacent mountains.

Climate in the Coachella Valley is characterized by low humidity, high summer temperatures, and mild dry winters. Average annual precipitation in the Coachella Valley varies from 4 inches on the Valley floor to more than 30 inches in the surrounding mountains. Most of the precipitation occurs during December through February (except for summer thundershowers). The low rainfall is inadequate to supply sufficient water supply for the valley, thus the need for the importation of Colorado River water. Precipitation data recorded at nine rain gauge stations in the Upper Coachella Valley by Riverside County Flood Control and Water Conservation District is included in **Appendix A**.

Prevailing winds in the area are usually gentle, but occasionally increase to velocities of 30 miles per hour or more. Midsummer temperatures commonly exceed 100 degrees Fahrenheit (°F), frequently reach 110°F, and periodically reach 120°F. The average winter temperature is approximately 60°F.

2. The Coachella Valley Groundwater Basin

The Coachella Valley Groundwater Basin, as described in CDWR Bulletins 108 and 118, is bounded on the north and east by non-water-bearing crystalline rocks of the San Bernardino and Little San Bernardino Mountains and on the south and west by the crystalline rocks of the Santa Rosa and San Jacinto Mountains. At the west end of the San Gorgonio Pass, between Beaumont and Banning, the basin boundary is defined by a surface drainage divide separating the Coachella Valley Groundwater Basin from the Beaumont Groundwater Basin of the Upper Santa Ana Drainage Area.

The southern boundary is formed primarily by the watershed of the Mecca Hills and by the northwest shoreline of the Salton Sea running between the Santa Rosa Mountains and Mortmar. Between the Salton Sea and Travertine Rock, at the base of the Santa Rosa Mountains, the lower boundary coincides with the Riverside/Imperial County Line.

Southerly of the southern boundary, at Mortmar and at Travertine Rock, the subsurface materials are predominantly fine grained and low in permeability; although groundwater is present, it is not readily extractable. A zone of transition exists at these boundaries; to the north the subsurface materials are coarser and more readily yield groundwater.

Although there is interflow of groundwater throughout the groundwater basin, fault barriers, constrictions in the basin profile, and areas of low permeability limit and control movement of groundwater. Based on these factors, the groundwater basin has been divided into subbasins and subareas as described by CDWR in 1964 and the United States Geological Survey (USGS) in 1971.

3. Subbasins and Subareas

The San Andreas Fault drives a complex pattern of branching fault lines within the Coachella Valley which define the boundaries of the subbasins that make up the Coachella Valley Groundwater Basin (CDWR 2003). There are five subbasins within the Coachella Valley Groundwater Basin: the Whitewater River Subbasin, MC, San Gorgonio Pass Subbasin, Desert Hot Springs Subbasin, and GH (USGS 1974).

The subbasins, with their groundwater storage reservoirs, are defined without regard to water quantity or quality. They delineate areas underlain by formations which readily yield the stored water through water wells and offer natural reservoirs for the regulation of water supplies.

The boundaries between subbasins within the groundwater basin are generally defined by faults that serve as effective barriers to the lateral movement of groundwater. Minor subareas have also been delineated, based on one or more of the following geologic or hydrologic characteristics: type of water bearing formations, water quality, areas of confined groundwater, forebay areas, groundwater divides and surface drainage divides.

The following is a list of the subbasins and associated subareas, based on the CDWR and USGS designations:

- Mission Creek Subbasin (Subbasin 7-21.02 per CDWR Bulletin 118, 2003)
- Desert Hot Springs Subbasin (Subbasin 7-21.03 per CDWR Bulletin 118, 2003)
    - Miracle Hill Subarea
    - Sky Valley Subarea
    - Fargo Canyon Subarea
- Garnet Hill Subbasin (considered a subarea of the Indio Subbasin in CDWR Bulletin 118, 2013)
- San Gorgonio Pass Subbasin (Subbasin 7-21.04 per CDWR Bulletin 118, 2003)

- Whitewater River Subbasin (Subbasin 7-21.01 per CDWR Bulletin 118, 2003, referred to therein as the Indio Subbasin)
    - Palm Springs Subarea
    - Thermal Subarea
    - Thousand Palms Subarea
    - Oasis Subarea

DWA's groundwater replenishment program encompasses portions of four of the five subbasins (Whitewater River, Mission Creek, San Gorgonio Pass, and Garnet Hill). DWA's replenishment program does not include the Desert Hot Springs Subbasin. **Figure 2** illustrates the subbasin boundaries per the MC/GH WMP (Montgomery Watson Harza (MWH) 2003) and DWA's Areas of Benefit of the replenishment program.

The boundaries (based on faults, barriers, constrictions in basin profile, and changes in permeability of water-bearing units), geology, hydrogeology, water supply, and groundwater storage of these subbasins are further described in the following sections.

a. Mission Creek Subbasin (MC)

Water-bearing materials underlying the Mission Creek upland comprise the MC. This subbasin is designated Number 7-21.02 in CDWR's Bulletin 118 (2003). The subbasin is bounded on the south by the Banning Fault and on the north and east by the Mission Creek Fault. The subbasin is bordered on the west by relatively impermeable rocks of the San Bernardino Mountains. The Indio Hills are located in the easterly portion of the subbasin, and consist of the semi-water-bearing Palm Springs Formation. The area within this boundary northwesterly of the Indio Hills reflects the estimated geographic limit of effective storage within the subbasin (CDWR 1964).

Both the Mission Creek Fault and the Banning Fault are partially effective barriers to lateral groundwater movement, as evidenced by offset water levels, fault springs, and changes in vegetation. Water level differences across the Banning Fault, between the MC and the GH, are on the order of 200 feet to 250

feet. Similar water level differences exist across the Mission Creek Fault between the MC and Desert Hot Springs Subbasin (MWH 2013).

This subbasin relies on the same imported SWP/Colorado River Exchange Water source for replenishment, as does the westerly portion of the Whitewater River Subbasin. CVWD, DWA, and MSWD jointly manage this subbasin under the terms of the 2004 Mission Creek Settlement Agreement. This agreement and the 2014 Mission Creek Water Management Agreement between CVWD and DWA specify that the available SWP water will be allocated between the MC and WWR Management Areas in proportion to the amount of water produced or diverted from each subbasin during the preceding year.

b. Desert Hot Springs Subbasin

The Desert Hot Springs Subbasin is designated Number 7-21.03 in CDWR's Bulletin 118 (2003). It is bounded on the north by the Little San Bernardino Mountains and on the southeast by the Mission Creek and San Andreas Faults. The Mission Creek Fault separates the Desert Hot Springs Subbasin from the MC, and the San Andreas Fault separates the Desert Hot Springs Subbasin from the Whitewater River Subbasin. Both faults serve as effective barriers to lateral groundwater flow. The subbasin has been divided into three subareas: Miracle Hill, Sky Valley, and Fargo Canyon (CDWR 1964).

The Desert Hot Springs Subbasin is not extensively developed, except in the Desert Hot Springs area. Relatively poor groundwater quality has limited the use of this subbasin for groundwater supply. The Miracle Hill Subarea underlies portions of the City of Desert Hot Springs and is characterized by hot mineralized groundwater, which supplies a number of spas in that area. The Fargo Canyon Subarea underlies a portion of the planning area along Dillon Road north of Interstate 10. This area is characterized by coarse alluvial fans and stream channels flowing out of Joshua Tree National Park. Based on limited groundwater data for this area, flow is generally to the southeast. Water quality is relatively poor with salinities in the range of 700 milligrams per liter (mg/L) to over 1,000 mg/L (CDWR 1964).

c. Garnet Hill Subbasin (GH)

The area between the Garnet Hill Fault and the Banning Fault, named the Garnet Hill Subarea of the Indio (Whitewater River) Subbasin by CDWR (1964), was considered a distinct subbasin by the USGS because of the partially effective Banning and Garnet Hill Faults as barriers to lateral groundwater movement. This is demonstrated by a difference of 170 feet in groundwater level elevation in a horizontal distance of 3,200 feet across the Garnet Hill Fault, as measured in the spring of 1961. The Garnet Hill Fault does not reach the surface, and is probably effective as a barrier to lateral groundwater movement only below a depth of about 100 feet (MWH 2013).

The 2013 MC/GH WMP states groundwater production is low in the GH and is not expected to increase significantly in the future due to relatively low well yields compared to those in the MC. Water levels in the western and central portions of the subbasin show response to large replenishment quantities from the Whitewater River Groundwater Replenishment Facility, while levels are relatively flat in the easterly portion of the subbasin. The lack of wells in the subbasin limits the hydrogeologic understanding of how this subbasin operates relative to the MC and Whitewater River Subbasin.

Although some natural replenishment to this subbasin may come from Mission Creek and other streams that pass through during periods of high flood flows, the chemical character of the groundwater (and its direction of movement) indicate that the main source of replenishment to the subbasin comes from the Whitewater River through the permeable deposits which underlie Whitewater Hill (MWH 2013).

This subbasin is considered part of the Whitewater River (Indio) Subbasin in CDWR's Bulletin 118 (2003) and therefore was not designated with a separate number therein. There are no assessable groundwater pumpers within CVWD's portion of the GH, and CVWD considers the portion of the GH within its boundaries to be a part of their WWR AOB. There are two assessable producers

within DWA's portion of the GH, which together produced a total of 470.46 AF of groundwater from the subbasin in 2017. DWA considers the portion of the GH within its service area to be a separate AOB.

d. San Gorgonio Pass Subbasin

The San Gorgonio Pass Subbasin lies entirely within the San Gorgonio Pass area, bounded by the San Bernardino Mountains on the north and the San Jacinto Mountains on the south (CDWR 2003). This subbasin is designated Number 7 21.04 in CDWR's Bulletin 118 (2003).

The San Gorgonio Pass Subbasin is hydrologically connected to the Whitewater River Subbasin on the east. Groundwater within the San Gorgonio Pass Subbasin moves from west to east and spills out into the Whitewater River Subbasin over the suballuvial bedrock constriction at the east end of the pass (CDWR 1964).

DWA's service area includes three square miles of the San Gorgonio Pass Subbasin.

e. Whitewater River (Indio) Subbasin

The Whitewater River Subbasin, designated the Indio Subbasin (Basin No. 7 21.01) in CDWR Bulletin No. 118 (2003), underlies the major portion of the Coachella Valley floor and encompasses approximately 400 square miles. Beginning approximately one mile west of the junction of State Highway 111 and Interstate 10, the Whitewater River Subbasin extends southeast approximately 70 miles to the Salton Sea.

The Subbasin is bordered on the southwest by the Santa Rosa and San Jacinto Mountains and is separated from the Garnet Hill, Mission Creek, and Desert Hot Springs Subbasins to the north and east by the Garnet Hill and San Andreas Faults (CDWR 1964). The Garnet Hill Fault, which extends southeasterly from the north side of San Gorgonio Pass to the Indio Hills, is a relatively effective

barrier to lateral groundwater movement from the GH into the Whitewater River Subbasin, with some portions in the shallower zones more permeable. The San Andreas Fault, extending southeasterly from the junction of the Mission Creek and Banning Faults in the Indio Hills and continuing out of the basin on the east flank of the Salton Sea, is also an effective barrier to lateral groundwater movement from the northeast (CDWR 1964).

The subbasin underlies the cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, and Coachella, and the unincorporated communities of Thousand Palms, Thermal, Bermuda Dunes, Oasis, and Mecca. From about Indio southeasterly to the Salton Sea, the subbasin contains increasingly thick layers of silt and clay, especially in the shallower portions of the subbasin. These silt and clay layers, which are remnants of ancient lake bed deposits, impede the percolation of water applied for irrigation and limit groundwater replenishment opportunities to the westerly fringe of the subbasin (CDWR 1964).

In 1964, CDWR estimated that the five subbasins that make up the Coachella Valley Groundwater Basin contained a total of approximately 39.2 million AF of water in the first 1,000 feet below the ground surface; much of this water originated as runoff from the adjacent mountains. Of this amount, approximately 28.8 million AF of water was stored in the overall Whitewater River Subbasin (CDWR 1964). However, the amount of water in the Whitewater River Subbasin has decreased over the years because it has developed to the point where significant groundwater production occurs (CVWD 2012). The natural supply of water to the northwestern part of the Coachella Valley is not keeping pace with the basin outflow, due mainly to large consumptive uses created by the resort-recreation economy and permanent resident population in the northwestern Whitewater River Subbasin, and large agricultural economy in the southeastern Whitewater River Subbasin. Imported SWP water allocations are exchanged for Colorado River water and utilized for replenishment in the westerly portion of the Whitewater River Subbasin to replace consumptive uses created by the resort recreation economy and permanent resident population.

The Whitewater River Subbasin is not currently adjudicated. From a management perspective, CVWD divides the portion of the subbasin within its service area into two AOBs designated the West Whitewater River Subbasin AOB and the East Whitewater River Subbasin AOB. The dividing line between these two areas is an irregular line trending northeast to southwest between the Indio Hills north of the City of Indio and Point Happy in La Quinta (see paragraph e.5 below for the history of this division). The West Whitewater River Subbasin Management Area is jointly managed by CVWD and DWA under the terms of the 2014 Whitewater Water Management Agreement. The East Whitewater River Subbasin AOB is managed by CVWD (CVWD 2012).

Hydrogeologically, the Whitewater River Subbasin is divided into four subareas: the Palm Springs, Thermal, Thousand Palms, and Oasis Subareas. The Palm Springs Subarea is the forebay or main area of replenishment to the subbasin, and the Thermal Subarea is the pressure or confined area within the basin. The other two subareas are peripheral areas having unconfined groundwater conditions.

1) Palm Springs Subarea

The triangular area between the Garnet Hill Fault and the east slope of the San Jacinto Mountains southeast to Cathedral City is designated the Palm Springs Subarea. Groundwater is unconfined in this area. The Coachella Valley fill materials within the Palm Springs Subarea are essentially heterogeneous alluvial fan deposits with little sorting and little fine grained material content. The thickness of these water-bearing materials is not known; however, it exceeds 1,000 feet. Although no lithologic distinction is apparent from well drillers' logs, the probable thickness of recent deposits suggests that Ocotillo conglomerate underlies recent fanglomerate in the subarea at depths ranging from 300 feet to 400 feet.

Natural replenishment to the aquifer in the Whitewater River Subbasin occurs primarily in the Palm Springs Subarea. The major natural sources include infiltration of stream runoff from the San Jacinto Mountains and

the Whitewater River, and subsurface inflow from the San Gorgonio Pass Subbasin and GH. Deep percolation of direct precipitation on the Palm Springs Subarea is considered negligible as it is consumed by evapotranspiration (CDWR 1964).

2) Thermal Subarea

Groundwater of the Palm Springs Subarea moves southeastward into the interbedded sands, silts, and clays underlying the central portion of the Coachella Valley. The division between the Palm Springs Subarea and the Thermal Subarea is near Cathedral City. The permeabilities parallel to the bedding of the deposits in the Thermal Subarea are several times the permeabilities perpendicular to the bedding and, therefore, movement of groundwater parallel to the bedding predominates. Confined or semi confined groundwater conditions are present in the major portion of the Thermal Subarea. Movement of groundwater under these conditions is present in the major portion of the Thermal Subarea and is caused by differences in piezometric (pressure) level or head. Unconfined or free water conditions are present in the alluvial fans at the base of the Santa Rosa Mountains, such as the fans at the mouth of Deep Canyon and in the La Quinta area.

Sand and gravel lenses underlying this subarea are discontinuous, and clay beds are not extensive. However, two aquifer zones separated by a zone of finer-grained materials were identified from well logs. The fine grained materials within the intervening horizontal plane are not tight enough or persistent enough to completely restrict the vertical interflow of water, or to warrant the use of the term "aquiclude". Therefore, the term "aquitard" is used for this zone of less permeable material that separates the upper and lower aquifer zones in the southeastern part of the Valley.

The lower aquifer zone, composed of part of the Ocotillo conglomerate, consists of silty sands and gravels with interbeds of silt and clay. It

contains the greatest quantity of stored groundwater in the Coachella Valley Groundwater Basin, but serves only that portion of the Valley easterly of Washington Street. The top of the lower aquifer zone is present at a depth ranging from 300 feet to 600 feet below the surface. The thickness of the zone is undetermined, as the deepest wells present in the Coachella Valley have not penetrated it in its entirety. The available data indicate that the zone is at least 500 feet thick and may be in excess of 1,000 feet thick.

The aquitard overlying the lower aquifer zone is generally 100 feet to 200 feet thick, although in small areas on the periphery of the Salton Sea it is more than 500 feet thick. North and west of Indio, in a curved zone approximately one mile wide, the aquitard is apparently lacking and no distinction is made between the upper and lower aquifer zones.

Capping the upper aquifer zone in the Thermal Subarea is a shallow fine grained zone in which semi-perched groundwater is present. This zone consists of recent silts, clays, and fine sands and is relatively persistent southeast of Indio. It ranges from zero to 100 feet thick and is generally an effective barrier to deep percolation. However, north and west of Indio, the zone is composed mainly of clayey sands and silts, and its effect in retarding deep percolation is limited. The low permeability of the materials southeast of Indio has contributed to irrigation drainage problems in the area. Semi-perched groundwater has been maintained by irrigation water applied to agricultural lands south of Point Happy, necessitating the construction of an extensive subsurface tile drain system (CDWR 1964).

The Thermal Subarea contains the division between CVWD's west and east AOBs of the Whitewater River (Indio) Subbasin, which is more fully described in paragraph e.5 below.

The imported Colorado River supply through the Coachella Canal is used mainly for irrigation in the easterly portion of the Whitewater River

Subbasin. Annual deliveries of Colorado River water through the Coachella Canal of approximately 300,000 AF are a significant component of southeastern Coachella Valley hydrology. A smaller portion of the Coachella Canal water supply is used to offset groundwater pumping by golf courses in the westerly portion of the Whitewater River Subbasin.

CVWD recently completed a study to evaluate the entire Coachella Valley Groundwater Basin. This led to the development and adoption of the 2010 CVWMP Update. Using state-of-the-art technology, CVWD developed and calibrated a peer-reviewed, three-dimensional groundwater model (Fogg 2000) that is based on data from over 2,500 wells, and includes an extensive database of well chemistry reports, well completion reports, electric logs, and specific capacity tests. This model improved on previous groundwater models, and incorporates the latest hydrological evaluations from previous studies conducted by CDWR and USGS to gain a better understanding of the hydrogeology in this subbasin and the benefits of water management practices identified in the CVWMP.

3) Thousand Palms Subarea

The small area along the southwest flank of the Indio Hills is named the Thousand Palms Subarea. The southwest boundary of the subarea was determined by tracing the limits of distinctive groundwater chemical characteristics. The major aquifers of the Whitewater River Subbasin are characterized by calcium bicarbonate; but water in the Thousand Palms Subarea is characterized by sodium sulfate (CDWR 1964).

The differences in water quality suggest that replenishment to the Thousand Palms Subarea comes primarily from the Indio Hills and is limited in supply. The relatively sharp boundary between chemical characteristics of water derived from the Indio Hills and groundwater in

the Thermal Subarea suggests there is little intermixing of the two waters.

The configuration of the water table north of the community of Thousand Palms is such that the generally uniform, southeasterly gradient in the Palm Springs Subarea diverges and steepens to the east along the base of Edom Hill. This steepened gradient suggests a barrier to the movement of groundwater: possibly a reduction in permeability of the water-bearing materials, or possibly a southeast extension of the Garnet Hill Fault. However, such an extension of the Garnet Hill Fault is unlikely. There is no surface expression of such a fault, and the gravity measurements taken during the 1964 CDWR investigation do not suggest a subsurface fault. The residual gravity profile across this area supports these observations. The sharp increase in gradient is therefore attributed to lower permeability of the materials to the east.

Most of the Thousand Palms Subarea is located within the westerly portion of the Whitewater River Subbasin. Groundwater levels in this area show similar patterns to those of the adjacent Thermal Subarea, suggesting a hydraulic connectivity (CDWR 1964).

4) Oasis Subarea

Another peripheral zone of unconfined groundwater that is different in chemical characteristics from water in the major aquifers of the Whitewater River Subbasin is found underlying the Oasis Piedmont slope. This zone, named the Oasis Subarea, extends along the base of the Santa Rosa Mountains. Water-bearing materials underlying the subarea consist of highly permeable fan deposits. Although groundwater data suggest that the boundary between the Oasis and Thermal Subareas may be a buried fault extending from Travertine Rock to the community of Oasis, the remainder of the boundary is a lithologic change from the coarse fan deposits of the Oasis Subarea to the interbedded sands, gravel, and silts of the Thermal Subarea. Little information is available as to the

thickness of the water-bearing materials, but it is estimated to be in excess of 1,000 feet. Groundwater levels in the Oasis Subarea have exhibited similar declines as elsewhere in the subbasin due to increased groundwater pumping to meet agricultural demands on the Oasis slope (CDWR 1964).

5) East/West AOB Division

The Thermal Subarea (see paragraph e.2 above) contains the division between the westerly and easterly portions of the Whitewater River Subbasin (CVWD's West Whitewater River Subbasin AOB and East Whitewater River Subbasin AOB). This division constitutes the southern boundary of the management area governed by the Management Agreement between CVWD and DWA.

The boundary between these two Management Areas extends from Point Happy (a promontory of the Santa Rosa Mountains between Indian Wells and La Quinta) northeasterly, generally along Washington Street, to a point on the San Andreas Fault intersecting the northerly prolongation of Jefferson Street in Indio.

The boundary was originally defined primarily on the basis of differing groundwater levels resulting from differences in groundwater use and management northerly and southerly of the boundary. Primarily due to the application of imported water from the Coachella Canal, and an attendant reduction in groundwater pumpage, the water levels in the area southeasterly from Point Happy (the East Whitewater River Subbasin Management Area) rose until the early 1970s, while groundwater levels northwesterly from Point Happy (the WWR Management Area) were dropping due to continued development and pumping. This was stated by Tyley (USGS 1974) as follows:

"The south boundary is an imaginary line extending from Point Happy northeast to the Little San Bernardino Mountains and was chosen for the

following reasons: (1) North of the boundary, water levels have been declining while south of the boundary, water levels have been rising since 1949 and (2) north of the boundary, ground water is the major source of irrigation water while south of the boundary, imported water from the Colorado River is the major source of irrigation water."

In addition, according to CDWR (1964) and as discussed above, the easterly portion of the Thermal Subarea is distinguished from area north and west of Indio within the Thermal Subarea by the presence of several relatively impervious clay layers (aquitards) lying between the ground surface and the main groundwater aquifer, creating confined and semi-confined aquifer conditions (see Figure III-2). These conditions were characterized by Tyley as "artesian conditions" southerly of the south boundary.

Groundwater levels northerly of the boundary have been stable or increasing since the 1970s (per recorded measurements of USGS, DWA, and CVWD wells), except in the greater Palm Desert area, largely due to the commencement of replenishment activities at the Whitewater River Groundwater Replenishment Facility in 1973. Groundwater levels in the greater Palm Desert area continue to decline, but at a reduced rate as a result of the groundwater replenishment program. Differences between the East Whitewater River Subbasin Management Area and WWR Management Area also persist in terms of management of the groundwater replenishment program and by groundwater usage (there is significantly more agricultural use in CVWD's East Whitewater River Subbasin AOB than in the WWR Management Area).

6) Summary

The Whitewater River Subbasin consists of four subareas: the Palm Springs, Thermal, Thousand Palms, and Oasis Subareas. The Palm Springs Subarea is the forebay or main area of replenishment to the subbasin, and the Thermal Subarea includes the pressure or confined area

within the basin. The Thousand Palms and Oasis Subareas are peripheral areas having unconfined groundwater conditions. From a management perspective, the Whitewater River Subbasin is divided into a westerly and easterly portion, with the dividing line extending from Point Happy in La Quinta to the northeast, terminating at the San Andreas Fault and the Indio Hills at Jefferson Street.

Potable groundwater is not readily available within the following areas in the Coachella Valley: Indio Hills, Mecca Hills, Barton Canyon, Bombay Beach, and Salton City. Water service to these areas is derived from groundwater pumped from adjacent basins.

B. THE GROUNDWATER REPLENISHMENT AND ASSESSMENT PROGRAM

DWA's Groundwater Replenishment and Assessment Program was established to augment groundwater supplies and arrest or retard declining water table conditions within the Coachella Valley Groundwater Basin, specifically within the WWR, MC, and GH AOBs (see **Figure 1**).

1. Water Management Areas

Pursuant to the Water Management Agreements between CVWD and DWA, the Water Management Areas encompass the Westerly Portion of the Whitewater River Subbasin, a portion of the San Gorgonio Pass Subbasin, and the entire MC and GH (except three square miles in the Painted Hills area and a small portion that lies within San Bernardino County) within the Coachella Valley Groundwater Basin (see **Figure 1**).

- <u>The West Whitewater River Subbasin (WWR) Management Area</u>

  CVWD and DWA have recognized the need to manage the westerly portion of the Whitewater River Subbasin as a complete unit rather than as individual segments underlying the individual agencies' boundaries. This management area consists of the Palm Springs and Thousand Palms Subareas and the westerly portion of the Thermal Subarea, which is experiencing a significantly declining water table. The management area was established to encompass the area of groundwater overdraft as

evidenced by declining water table conditions, and includes areas within both CVWD and DWA boundaries. The easterly boundary of the WWR Management Area extends from Point Happy (a promontory of the Santa Rosa Mountains between Indian Wells and La Quinta) northeasterly, generally along Washington Street, to a point on the San Andreas Fault intersecting the northerly prolongation of Jefferson Street in Indio.

DWA's WWR AOB is located entirely within the WWR Management Area.

- The Mission Creek Subbasin (MC) Management Area

  CVWD and DWA have recognized the need to manage the MC as a complete unit rather than as individual segments underlying the individual agency's boundaries. This management area consists of the entire MC. DWA's MC AOB is located entirely within the MC Management Area.

- The Garnet Hill Subbasin (GH) Management Area

  CVWD considers the portion of the GH within its boundaries to be a part of its WWR AOB. DWA considers the portion of the GH within its service area to be a separate management area and AOB.

2. Areas of Benefit

The Areas of Benefit (AOBs) for DWA's replenishment program consist of the westerly portion of the Coachella Valley Groundwater Basin, including portions of the Whitewater River Subbasin, MC, GH, and tributaries thereto, situated within DWA's service area boundary (see **Figure 2**). DWA has three AOBs within its replenishment program: the West Whitewater River Subbasin (WWR) AOB, the Mission Creek Subbasin (MC) AOB, and the Garnet Hill Subbasin (GH) AOB.

DWA's **WWR AOB** consists of that portion of the WWR Management Area situated within DWA's service area boundary (including a portion of the San Gorgonio Pass Subbasin).

DWA's **MC AOB** consists of that portion of the MC Management Area situated within DWA's service area boundary.

DWA's **GH AOB** consists of that portion of the GH Management Area situated within DWA's service area boundary.

The AOBs for CVWD's replenishment program consist of the portions of the Whitewater River Subbasin, MC, and GH within CVWD's boundary. CVWD has a total of three AOBs within its groundwater replenishment program: the CVWD MC AOB; the CVWD WWR AOB; and the East Whitewater River Subbasin AOB. CVWD's WWR AOB includes the portion of the GH within CVWD's service area (see **Figure 2**).

Within DWA's WWR AOB, there are seven stream diversions on the Whitewater River and its tributaries, five by DWA (two on Chino Creek, one on Snow Creek, one on Falls Creek, and one by the former Whitewater Mutual Water Company, which has been acquired by DWA), one by the Wildlands Conservancy (formerly the Whitewater Trout Farm) which is used for conservation and educational purposes, and one by CVWD at the Whitewater River Replenishment Facility; the latter three being on the Whitewater River itself. There are no stream diversions within the MC or GH Areas of Benefit. DWA's WWR AOB also includes subsurface tributary flows from the San Gorgonio Pass Subbasin located to the west.

While the replenishment assessments outlined on the following pages are based on and limited to water production within DWA's AOBs, available water supply, estimated water requirements, and groundwater replenishment are referenced herein to the entire WWR Management Area, MC Management Area, and GH Management Area. The WWR, MC, and GH Management Areas are replenished jointly by CVWD and DWA for water supply purposes, and the two agencies jointly manage the imported water supplies within said Management Areas.

3. Water Management Agreements

The replenishment program was implemented pursuant to a joint Water Management Agreement for the WWR Management Area ("Whitewater River Subbasin Water

Management Agreement", executed July 1, 1976 and amended December 15, 1992 and July 15, 2014) between CVWD and DWA. Later, a similar program was implemented within the MC Management Area pursuant to a similar joint Water Management Agreement ("Mission Creek Subbasin Water Management Agreement", executed April 8, 2003 and amended July 15, 2014). Currently, there is no Water Management Agreement between CVWD and DWA specifically for the GH Management Area because direct artificial groundwater replenishment has not been implemented within the subbasin. However, groundwater in the GH Management Area is managed under the provisions of the Whitewater River and Mission Creek Subbasin Water Management Agreements.

CVWD and DWA entered into a Settlement Agreement with MSWD in December 2004, which affirmed the water allocation procedure that had been established earlier by CVWD and DWA, and which established a Management Committee, consisting of the General Managers of CVWD, DWA, and MSWD, to review production and recharge activities. The Addendum to the Settlement Agreement states that the water available for recharge each year shall be divided between the WWR Management Area and the MC Management Area proportionate to the previous year's production from within each management area (see **Appendix B)**.

Conditions of the Settlement Agreement and Addendum between DWA, CVWD, and MSWD state that DWA and CVWD have the authority to levy replenishment assessments on water produced from subbasins of the Upper (Western) Coachella Valley Groundwater Basin within DWA and CVWD's Areas of Benefit, if found that recharge activities benefit those subbasins.

The Management Committee engaged MWH to prepare the MC/GH WMP, which was completed in January 2013. According to the MC/GH WMP, the GH benefits from the recharge activities in both the MC and Whitewater River Subbasin. It benefits from the recharge activities in the MC via subsurface flow across the Banning Fault, and from the recharge activities in the westerly portion of the Whitewater River Subbasin via: (a) infiltration from the Whitewater River channel, which carries imported water from the Colorado River Aqueduct to the replenishment facilities within the Whitewater River Subbasin, and (b) from subsurface flow across the Garnet Hill Fault at the northerly end of the GH during major recharge events that significantly raise the groundwater level in

the vicinity of the Whitewater River Replenishment Facility. Exact quantities of replenishment benefit from the MC and Whitewater River Subbasin to the GH cannot be ascertained at this time with currently available hydrologic data.

The Water Management Agreements call for maximum importation of SWP Contract Table A water allocations (formerly "entitlements") by CVWD and DWA for replenishment of groundwater basins or subbasins within defined Water Management Areas. The Agreement also requires collection of data necessary for sound management of water resources within these same Water Management Areas.

4. Groundwater Overdraft

CDWR Bulletin 160-09 (2009 California Water Plan Update) defines "Groundwater overdraft" as:

> *"…the condition of a groundwater basin in which the amount of water withdrawn by pumping exceeds the amount of water that recharges the basin over a period of years, during which the water supply conditions approximate average conditions."*

According to CDWR Bulletin 118-80 (Groundwater Basins in California):

> *"Overdraft is characterized by groundwater levels that decline over a period of years and never fully recover, even in wet years. Overdraft can lead to increased extraction costs, land subsidence, water quality degradation, and environmental impacts."*

For purposes of this report, the term "gross overdraft" refers to groundwater extractions or water production in excess of natural groundwater replenishment or recharge, as an annual rate in AF/Yr, and "cumulative overdraft" refers to the cumulative gross overdraft in AF over the recorded history of an aquifer (since 1956 for WWR and since 1978 for MC). The term "net overdraft" refers herein to gross overdraft offset by artificial replenishment.

The initial Water Management Agreement was developed following numerous investigations regarding the groundwater supply within the Coachella Valley; said investigations are addressed in DWA's previous reports (*Engineer's Report on Groundwater Replenishment and Assessment Program for the Whitewater River Subbasin* for the years 1978/1979 through 1983/1984). These investigations all concluded that gross overdraft (groundwater extractions or water production in excess of natural groundwater replenishment and/or recharge) existed within the Coachella Valley Groundwater Basin and its subbasins.

5. Groundwater Replenishment

a. Summary

Since 1973, CVWD and DWA have been using Colorado River water exchanged for SWP water (Table A water allocations and supplemental water as available) to replenish groundwater in the Coachella Valley Groundwater Basin within the WWR Management Area (including a portion of the San Gorgonio Pass Subbasin) and the GH Management Area, and, since 2002, within the MC Management Area. The two agencies are permitted by law to replenish the groundwater basins and to levy and collect water replenishment assessments from any groundwater extractor or surface water diverter (aside from exempt producers) within their jurisdictions who benefits, such as those within the GH and San Gorgonio Pass Subbasin, from replenishment of groundwater.

b. History

DWA and CVWD completed construction of the Whitewater River Replenishment Facility in 1973 and the Mission Creek Replenishment Facility in 2002, and recharge activities commenced within each respective subbasin upon completion of the facilities. Annual recharge quantities are set forth in **Exhibit 6**.

From 1973 through 2017, CVWD and DWA have replenished the WWR and MC Management Areas with approximately 3,481,276 AF (3,318,182 AF to WWR

Management Area and 159,561 AF to MC Management Area). Of this total, 3,223,627 AF consisted of exchange deliveries (Colorado River water exchanged for SWP water, including advance deliveries) and 3,806,172 AF consisted of exchange deliveries and advance deliveries converted to exchange deliveries, but excluding advance deliveries not yet converted to exchange deliveries. See **Exhibit 6**.

Between October 1984 and December 1986, MWD initially provided about 466,000 AF of advance delivered water for future exchange with CVWD and DWA that was used to replenish the WWR Management Area. This initial quantity of advanced delivered water has been augmented several times since then (with a portion on the augmented supply delivered to the Mission Creek Replenishment Facility), and the total quantity of advance delivered water is currently 1,152,351 AF. During drought conditions, MWD has periodically met exchange delivery obligations with water from its advance delivery account. By December 2017, MWD had converted approximately 827,243 AF of advance delivered water to exchange water deliveries, leaving a balance of approximately 325,108 AF in MWD's advance delivery account (see **Exhibit 6**, included at the end of this report, for an accounting of exchange and advance deliveries).

c. Table A Water Allocations and Deliveries

SWP Table A water allocations are based primarily on hydrologic conditions and legal constraints, and vary considerably from year to year. In 2017, the final allocation was 85% of maximum Table A allocations. However, the Table A water deliveries during 2017 were approximately 34% of maximum Table A allocations, with the remainder delivered in 2018 as Article 56 carry-over water and flexible storage pay-back at Lake Perris. As of the writing of this report, Table A water deliveries in 2018 are projected to be 35% of maximum Table A allocations. Long-term average Table A allocations are currently predicted to be approximately 62% of maximum Table A allocations.

A portion of Table A allocations for a given year are occasionally carried over into the following year under Article 56 of the SWP Contract. In the first three

months of 2018, 97,050 AF of Article 56 water carried over from 2017 has been delivered to CVWD and DWA.

Even though CVWD and DWA have requested and will continue to request their maximum annual Table A allocations, the "Probable Table A Water Allocations" and "Probable Table A Water Deliveries" have been adjusted herein for long-term reliability for estimating purposes. In previous reports, the Probable Table A Water Allocations have been assumed herein to be equal to the maximum Table A Water allocations with the MWD transfer portion reduced by a calculated factor to represent a long-term average transfer quantity with possible recalls by MWD pursuant to the 2003 Exchange Agreement and its implementation. According to communications from MWD management, it is unlikely that MWD will make any recalls for the foreseeable future; therefore, this factor has not been applied to future estimates. "Probable Table A Water Deliveries" are herein assumed to be 62% of the aforementioned Probable Table A Water Allocations, based on estimated SWP reliability.

From 1973 through 2003, CVWD and DWA had SWP maximum annual Table A allocations of 23,100 AF and 38,100 AF, respectively. To meet projected water demands and to alleviate cumulative gross overdraft conditions, CVWD and DWA have secured additional SWP Table A water allocations, increasing their combined maximum Table A water allocations from 61,200 AF/Yr in 2003 to 194,100 AF/Yr beginning in 2010. CVWD and DWA's current Table A allocations are described in additional detail in the following paragraphs.

1) Tulare Lake Purchase

CVWD obtained an additional 9,900 AF/Yr of Table A water allocation from Tulare Lake Basin Water Storage District, another State Water Contractor, thus increasing its annual Table A water allocation to 33,000 AF/Yr, effective January 1, 2004.

2) 2003 Exchange Agreement

In 2003, CVWD and DWA obtained a further 100,000 AF/Yr (88,100 AF/Yr for CVWD and 11,900 AF/Yr for DWA) of Table A water allocation through a new exchange agreement (the 2003 Exchange Agreement) among CVWD, DWA, and MWD (all State Water Contractors). The new exchange agreement, which became effective January 1, 2005, permits MWD to call-back or recall the assigned annual Table A water allocation of 100,000 AF/Yr in 50,000 AF/Yr increments during periods of constrained, limited, or low water supply conditions; however, it gives CVWD and DWA the opportunity to secure increased quantities of surplus water in addition to increased quantities of Table A water during normal or high water supply conditions. MWD must notify CVWD and DWA of its intentions regarding call-back or recall of the 100,000 AF or 50,000 AF increment thereof.

In implementing the 2003 Exchange Agreement, MWD advised CVWD and DWA that it would probably recall the 100,000 AF/Yr assigned to the two Coachella Valley agencies from 2005 through 2009. In fact, it did recall the full 100,000 AF/Yr in 2005, but it has not recalled any water since that time. According to communications with MWD management, it is unlikely that MWD will recall any water in the foreseeable future.

3) Kern County/Tulare Lake Purchase

In 2010, CVWD and DWA negotiated transfer of an additional 16,000 AF/Yr (12,000 AF/Yr for CVWD and 4,000 AF/Yr for DWA) of Table A water allocation from Kern County Water Agency and an additional 7,000 AF/Yr (5,250 AF/Yr for CVWD and 1,750 AF/Yr for DWA) from Tulare Lake Basin Water Storage District, both State Water Contractors.

d. Supplemental Water

Any surplus water secured by CVWD and DWA is exchanged for a like quantity of Colorado River Water. Charges for surplus water are allocated between CVWD and DWA in accordance with the terms of the Water Management Agreements. DWA secures funds for its allocated charges for surplus water payments from its Reserve for Additional Water Reserve Account.

1) Turn-Back Water Pool Water

From 1996 through 2017, CVWD and DWA jointly obtained 297,841 AF of water under CDWR's Turn-Back Water Pool Program, which was exchanged for a like quantity of Colorado River Water and delivered to the Whitewater River and Mission Creek Replenishment Facilities.

Turn-Back Water Pool water was originally Table A water scheduled for delivery to other State Water Contractors, but those Contractors subsequently determined that the water was surplus to their needs. Surplus water in the Turn-Back Water Pool Program is allocated between two pools based on time: Pool A water must be secured by March 1 of each year and Pool B water must be secured between March 1 and April 1 of each year. The charge for Pool A water is higher than the charge for Pool B water.

Since fiscal year 1999/2000, requests for Turn-Back Water Pool water have exceeded water available. Quantities of Pool A and Pool B water purchased by CVWD and DWA are shown in **Exhibit 6**.

In 2017, DWA and CVWD were allocated 1,131 AF of SWP surplus water under the Turn-Back Water Pool Program. Based on current projections, CVWD and DWA will not receive any Pool A or Pool B water in 2018.

2) Flood Water

In 1997 and 1998, CVWD and DWA jointly obtained 47,286 AF of Kaweah River, Tule River, and Kings River flood flow water, which was also exchanged for a like quantity of Colorado River water delivered to the Whitewater River Replenishment Facility. Currently, the availability of flood water in 2018 is uncertain.

3) Article 21 Surplus Water

From 2000 through 2011, CVWD and DWA obtained 42,272 AF of Article 21 surplus water and, similarly, that water was also exchanged for a like quantity of Colorado River water which was delivered to the Whitewater River Replenishment Facility. No Article 21 water has been delivered to the Coachella Valley since 2011. It is unlikely that DWA and CVWD will receive Article 21 water in 2018.

4) Yuba River Accord and Other Water

In 2008, CVWD and DWA obtained 1,836 AF of water under the terms of the Yuba River Accord (then newly-ratified). In 2009 and 2012, CVWD and DWA obtained 3,482 AF and 1,188 AF, respectively, of water under the Yuba River Accord and other conservation/transfer agreements. No water was obtained in 2010 or 2011 under the Yuba River Accord. In 2014 and 2015, respectively, CVWD and DWA jointly obtained 1,213 AF and 426 AF of water under the Yuba River Accord. Up to approximately 100,000 AF of water under the Yuba River Accord is estimated to be available for 2018, of which DWA and CVWD have requested 692 AF and 1,718 AF, respectively.

5) Multi-Year Water Pool

In 2012, the State Water Contractors began discussions regarding options for expanding the water market within the confines of the existing SWP

Contracts. The Contractors and CDWR developed a demonstration program called the 2013-2014 Multi-Year Water Pool (MYWP) Demonstration Program, whereby participating buyers and sellers would commit to buying water from the pool or selling water into the pool during calendar years 2013 and 2014. This MYWP Demonstration Program was designed to allow water-short State Water Contractors to purchase SWP water from other willing State Water Contractors, for two consecutive years, at a reasonable cost. Price and acre-foot amounts would vary as a function of the June 1 SWP allocation of water available each year.

The MYWP Demonstration Program is separate from the single year Turn-Back Pool program, and was developed to address issues with the single year Turn-Back Pool program resulting from low pricing.

In February 2015, in response to continuing dry conditions statewide, CDWR began administering a 2015-2016 MYWP Demonstration Program.

MWD requested that DWA participate in the 2015-2016 MYWP Demonstration Program on their behalf. They requested that DWA request up to 1,000 AF in 2015 and 5,000 AF in 2016. MWD will accept delivery of this water and DWA will pay CDWR the cost of the water and its delivery (transportation). If MWD chooses to keep this water and not exchange it, they will reimburse DWA the cost of the water and the cost of transportation. If MWD chooses to credit the water against the advanced delivery account balance, or deliver the water to the Replenishment Facility, they will reimburse DWA only the cost of the water, and DWA will be responsible for the typical costs associated with Table A water deliveries.

So far, 633 AF of water (67 AF in 2015 and 566 AF in 2016) have been delivered to MWD under the 2015-2016 MYWP Demonstration Program, and DWA was reimbursed by MWD for same.

e. Past Year Water Deliveries

Total artificial recharge (to both the Whitewater River and Mission Creek Replenishment Facilities) for 2017 was 395,242 AF (including CVWD's MWD Quantitative Settlement Agreement purchases). 385,994 was delivered to the Whitewater River Replenishment Facility and 9,248 AF was delivered to the Mission Creek Replenishment Facility. 35,000 AF were delivered under CVWD's Second Supplemental Agreement to their Delivery and Exchange Agreement for the Delivery of 35,000 AF, dated June 14, 2013 (see **Exhibit 6**).

f. Water Available in Current Year

The estimated quantity of water available for artificial recharge in the Upper Coachella Valley during 2018, based on delivery of 35% of the maximum Table A allocation, is as follows: 67,335 AF of Table A water (35% allocation) plus 97,050 AF of Article 56 carry-over water from 2017. The estimated quantity of supplemental water is as follows: 0 AF of Turn-Back Pool water, 0 AF of Article 21 water, 2,410 AF of Yuba water, 13,603 AF of Rosedale/Glorious Land water (CVWD), and 35,000 AF of CVWD QSA water, for a grand total of approximately 215,398 AF. During the first three months of 2018, a total of 12,607 AF of Colorado River water has already been delivered to the Whitewater River Replenishment Facility, and a total of 383 AF of Colorado River water has already been delivered to the Mission Creek Replenishment Facility.

g. Historic Effects of Artificial Replenishment on Aquifer

Prior to recharge activities in the Whitewater River Subbasin and MC, water levels were declining steadily in those subbasins as well as the GH. As shown in **Exhibits 1, 2, and 3**, after recharge activities commenced in 1973, and specifically after the three large recharge events listed below, groundwater levels in all three subbasins have risen substantially.

- 1985 - 1987: 655,000 AF Recharged
- 1995 - 2000: 609,000 AF Recharged
- 2009 - 2012: 760,000 AF Recharged

Exhibit 1 includes hydrographs for a collection of groundwater wells within the Whitewater River Subbasin (see **Figure 2** for the locations of the wells) in comparison with the total annual quantities of water delivered to the Whitewater River Replenishment Facility. This comparison clearly indicates that the recharge program has benefitted wells within the subbasin.

MSWD's Wells 25 and 26 are located upstream of the Whitewater River Replenishment Facility overlying the portion of the San Gorgonio Pass Subbasin, a tributary to the Whitewater River Subbasin, within the management area. Similar to other wells in the management area, water levels in these wells were also declining prior to groundwater recharge, and water levels in these wells rose by about 80 feet each after recharge commenced in the 1980s, and also rose following the other significant recharge events.

Exhibit 2 includes hydrographs for a selection of groundwater wells owned and operated by MSWD and the Mission Creek Monitoring Well located at the Mission Creek Replenishment Facility (see **Figure 2** for the locations of the wells), in comparison with the total annual quantities of water delivered to the Mission Creek Replenishment Facility. The comparison clearly indicates that the recharge program has benefitted the wells within the subbasin, especially the wells near the spreading basins. The magnitude of the response to the

groundwater recharge is inversely proportional to the distance the wells are located from the Replenishment Facility.

Exhibit 3 includes hydrographs from a collection of groundwater wells within the Garnet Hill Subbasin (see **Figure 2** for the locations of the wells) including one well owned by MSWD in comparison with both the replenishment quantities replenished by the Whitewater River and Mission Creek Replenishment Facilities. Groundwater levels in the Garnet Hill Subbasin responded rapidly when replenishment activities commenced at the Whitewater River Replenishment Facility in the 1970s.

Water levels in the wells closest to the Whitewater River Replenishment Facility rose approximately 400 feet in the late 1980s and nearly 200 feet following each significant recharge event to the WWR Management Area. The most significant response to groundwater recharge in the WWR Management Area is observed in the wells located closest to the Replenishment Facility. The degree of benefit observed from recharge decreases the farther the well is from the Replenishment Facility. Well locations are shown on **Figure 2**.

Although artificial replenishment with imported water, augmenting natural replenishment, has met increasing average annual groundwater demands during the past 30 years, it has not, for all practical purposes, reduced or diminished cumulative gross groundwater overdraft within the Coachella Valley Groundwater Basin, which existed prior to artificial replenishment of the groundwater basin. In effect, the groundwater overdraft condition that existed prior to imported water becoming available for groundwater replenishment has not been significantly altered, but the trend has been arrested. Although current groundwater levels have generally stabilized in the subbasins within the management areas, current cumulative gross overdraft (not yet offset by cumulative artificial recharge) is estimated at roughly 3,876,000 AF in the WWR Management Area (since 1956) and 262,000 AF in the MC Management Area (since 1978). Cumulative net overdraft, (cumulative gross overdraft offset by artificial replenishment) is currently estimated at 624,000 AF in the WWR Management Area and 105,000 AF in the MC Management Area. There is

insufficient data to determine groundwater overdraft in the GH Management Area.

CDWR has been unable to deliver full annual Table A water allocations for the past decade, with the exception of 2006 where 100% was delivered to Contractors. Had CVWD and DWA been able to obtain and exchange their maximum Table A quantities during that time period, cumulative groundwater overdraft would be significantly less and groundwater levels would be correspondingly higher.

h. Meeting Future Water Requirements

Historic and projected water supplies and water requirements for the WWR and MC Management Areas are set forth in **Figures 3 and 4**. Projected water supplies include SWP supplies, estimated natural inflow, and estimated non-consumptive return. Historic and projected water requirements include historic and projected groundwater production, and estimated natural outflow.

The projected water supply curves shown in **Figures 3 and 4**, are based on the estimates for the natural inflow to the WWR and MC Management Areas, continuing artificial recharge, non-consumptive return, and groundwater in storage, if necessary. Artificial recharge is based on the 2013 SWP reliability projections (based on existing conditions) excluding all potential surplus water deliveries which may become available during any particular year.

In contrast to the data presented in past Engineer's Reports, which relied primarily on the linear regression of the previous 10-year period of recorded groundwater production, projected water requirements (demands) through 2035 for the WWR and MC Management Areas (also shown in **Figures 3 and 4**) are based on the water balance model utilized in the 2010 Update to the Coachella Valley Water Management Plan and the 2014 Status Report prepared by MWH (and others), and the Groundwater Flow Model for the Mission Creek and Garnet Hill Subbasins Water Management Plan (MC/GH WMP) prepared by Psomas. As shown in the figures, the projected requirements are largely offset by probable

supplies; however, the cumulative annual change in storage will remain in the negative through at least 2030 under currently projected conditions.

Based on the production relationship between the WWR Management Area and the MC Management Area, in accordance with the Mission Creek Groundwater Replenishment Agreement, about 92% of imported water deliveries in 2018 will be directed to the WWR Management Area and 8% to the MC Management Area based on 2017 production (see **Exhibit 5**). For future years, the percentage of the total production is expected to range from 87% to 81% in the WWR Management Area and 12% to 19% in the MC Management Area through 2035 due to increased production (increased demands) in the MC Management Area due to anticipated population growth (MWH 2011, MWH 2013).

i. Adequacy of Current Supplies, Water Conservation, and Future Prospects

1) State Water Project Improvements

Continuous availability of SWP allocations will require complete development of the SWP, which currently has only about half of the water supply capacity needed to meet maximum Table A obligations during times of drought. Available water supplies are being further threatened by new and increasing constraints on the development of new water supply facilities and on the operation of existing facilities. In particular, the Wanger decisions regarding protection of the Delta smelt, concerns about reliability of the Delta levees, and other concerns led the CDWR to issue a revision in June 2012 of *The State Water Project Reliability Report 2009*, dated August 2010, wherein the long-term reliability of SWP supplies was reduced from an estimated 75% to 85% of maximum Table A allocations to approximately 60% of maximum allocations. The 2013 SWP Final Reliability Report, dated December 2014, further reduced the long-term reliability of SWP supplies to 58%. Without the construction of additional Sacramento-San Joaquin Delta facilities and certain water storage reservoirs, the water supply capability of the SWP will remain limited and State Water Contractors will have to

share reduced quantities of available supplies, especially during droughts.

With continued progress in the completion of California WaterFix (formerly known as the Bay Delta Conservation Plan (BDCP)), the balance between more reliable SWP water supplies and ecosystem restoration will be increased. The BDCP was a long-term conservation strategy designed to set forth actions required for a healthy Delta that will be implemented over the next 50 years, with an estimated cost of about $20 billion. California WaterFix is a refinement of the BDCP that involves a shorter term of implementation and incidental take authorization, and a narrowing of scope: the principal habitat restoration effort of the BDCP has been isolated as a separate program called "California EcoRestore."

California WaterFix itself involves the construction and operation of new water diversion facilities near Courtland to convey water from the Sacramento River through two tunnels to the existing state and federal pumping facilities near Tracy. In addition to other federal, state, and local approvals, California WaterFix requires changes to the water rights permits for the SWP and the federal Central Valley Project to authorize the proposed new points of water diversion and rediversion.

Currently, the capital cost of the full California WaterFix Project is estimated at about $17 billion for two tunnels. On February 6, 2018, due to difficulties in raising funds for the project, DWR announced that the project would initially be reduced in scope to a single tunnel, at cost of $10.7 billion. On April 10, 2018, MWD announced that it would provide the balance of the funds necessary to complete the original two-tunnel project. Eventually, SWP water supply reliability, quality, and delivered quantities and the overall health of the Delta may improve; however, it is unlikely that the costs for Delta improvements will be allocated to the State Water Contractors before 2020.

2) California Drought

In addition to the existing restrictions on water supplies from the SWP, California has just experienced over four consecutive years of severe drought. The four-year period between fall 2011 and fall 2015 was the State's driest since record keeping began in 1895. High temperatures worsened its effects, with 2014 and 2015 being the two hottest years in the State's recorded history. In late 2016 and early 2017, a series of winter storms produced record-level rainfall, resulting in the Governor's declaration ending the statewide drought emergency. Additionally, the US Drought Monitor report for California showed that DWA went from "Exceptional Drought", the most severe categorization, to "Abnormally Dry", the least severe.

During the course of the drought, the state implemented a number of mandatory water conservation measures. On January 17, 2014, Governor Jerry Brown, prompted by record dry conditions in California, proclaimed a drought state of emergency, followed by several executive orders continuing the state of emergency and extending government assistance. On April 25, 2014, the Governor issued a proclamation of a continued state of emergency based on drought conditions. Subsequently, in July 2014, the Office of Administrative Law approved emergency regulations mandating water conservation measures set forth by the State Water Resources Control Board (SWRCB).

On April 1, 2015, Governor Brown issued Executive Order B-29-15, finding that drought conditions persisted, and ordering that the SWRCB impose mandatory water use restrictions in order to achieve a statewide 25% reduction in potable urban water usage (as compared to usage in 2013) from June 2015 through February 2016.

In order to reach the statewide 25% reduction mandate, the SWRCB assigned each urban water supplier a conservation standard that ranged between 4% and 36%, based on the supplier's residential gallons per

capita per day water use for the months of July through September 2014. The SWRCB tasked DWA, CVWD, and MSWD to reduce potable urban water use within their service areas, ultimately by 32%, 32%, and 24%, respectively. Actual cumulative statewide water use reductions generally complied with the Governor's 25% reduction mandate through May 2016. As of May 2016, DWA achieved a 27% cumulative water savings, CVWD a 26% savings, and MSWD a 19% savings.

On May 9, 2016, the Governor issued another executive order establishing a new water use efficiency framework for California. The order established longer-term water conservation measures, including permanent monthly water use reporting, new urban water use targets customized to fit the unique conditions of each water supplier, requirements to reduce system leaks and eliminate clearly wasteful practices, strengthen urban drought contingency plans, and improve agricultural water management and drought plans. The framework was prepared by DWR, SWRCB, California Public Utilities Commission, California Department of Food and Agriculture and California Energy Commission with the assistance of two stakeholder groups: The Urban Advisory Group and the Agricultural Advisory Group.

On May 18, 2016, the SWRCB adopted a statewide water conservation approach (effective from June 2016 through January 2017) that replaced the prior percentage reduction-based water conservation standard with a localized Water Supply Reliability Certification and Data Submission (which was commonly called the "stress test" approach) that mandates urban water suppliers act to ensure at least a three-year supply of water to their customers under drought conditions similar to those experienced from 2012 through 2015. Cumulative, statewide water conservation figures dropped to approximately 18% over the summer of 2016, but began to increase again in the fall.

In response to the "stress test" regulation, DWA, CVWD, and MSWD all self-certified that sufficient water had been identified to meet all

anticipated demands with existing conservation programs and plans in place, effectively placing their local conservation targets at 0%. Despite passing the stress test, DWA elected to retain a 10% to 13% conservation target for its customers for the purposes of long-term sustainability.

Based on reports to the SWRCB, DWA's cumulative water savings (as compared to 2013) through January 2017 was 23.9%, that of CVWD 22.6%, and that of MSWD 16.9%.

The winter storms of late 2016 and early 2017 resulted in the removal of the "exceptional drought" designation from the State's drought monitor. As of March 7, 2017, about 76% of the State was identified as drought-free; and, on April 7, 2017, after 22 months of restrictions, Governor Brown proclaimed an end to the drought state of emergency, with the exception of Fresno, Kings, Tulare, and Tuolumne Counties. Water reporting requirements and prohibitions on wasteful practices remain in place.

During 2017, several pieces of legislation were proposed to implement the Governor's Framework. At the end of the session, two bills, AB 1668 (Friedman) and SB 606 (Hertzberg/Skinner/Friedman) were held, making them two-year bills. CVWD will continue to stay engaged in the regulatory activity related to this legislation in 2018.

The calendar year 2017 turned out to be the third hottest year in the State's recorded history after 2014 and 2015; and it had the hottest summer in the State's recorded history. However, the 2016-2017 water year was the second wettest water year in California history, exceeded in total runoff only by the 1982-1983 water year. DWR's eight-station precipitation index for 2016-2017 (which tracks conditions in the largest Central Valley watersheds important for water supplies) set a new record of nearly 95 inches, as compared to the long-term average of 50 inches. The record precipitation of 2016-2017 led to record deliveries of State Water Project Exchange Water at the Whitewater River Replenishment

Facility during 2017. However, despite a promising beginning to the water year in late 2017, rainfall in the early months of 2018 has been below average; and dry conditions are beginning to resume. According to the National Integrated Drought Information System, as of April 12, 2018, about 66% of the State is experiencing "abnormally dry" conditions, and about 37% of the State is experiencing moderate to severe drought conditions.

3) State Water Project Long-Term Reliability Estimates

The 2013 *SWP Final Reliability Report*, dated December 2014, estimated the long-term reliability of SWP supplies at 58% of maximum Table A Amounts, projected through the year 2033. In July of 2015, DWR issued the 2015 SWP Deliverability Capability Report. Beginning with said Report, DWR stopped making long-term future reliability projections, and instead evaluated the SWP's delivery capability ("deliverability") based on existing and historical conditions. Said report estimated the median deliverability of SWP supplies at approximately 64%, and long-term deliverability (82 year average value) at 62% of maximum Table A Amounts 50% of the time over the historic long-term (based on a computer model simulation of hydrologic conditions from 1922-2003). DWR explicitly stated in the 2015 Report that said report's estimates were based on existing and historical conditions and were not intended as future projections. For this reason, and also because the 2015 Report did not consider the very low water supply allocations that occurred during the drought years of 2013, 2014 and 2015, the long-term SWP reliability figure of 58% was cited in the 2015-2016, 2016-2017, and 2017-2018 Engineer's Reports rather than the 62% long-term deliverability figure presented in DWR's 2015 Delivery Capability Report.

In March of 2018, DWR issued its final 2017 Delivery Capability Report, which includes an evaluation of deliveries through calendar year 2016. The 2017 Report continues to use the same 82-year hydrologic record used for the 2015 Report (1922 through 2003) for its computer

model simulations of potential hydrologic conditions (runoff and precipitation patterns) for long-term average delivery, and deliveries during typical wet years and typical dry years. However, the analysis accounts for land use, upstream flow regulations, and sea levels characteristic of 2017, and DWR judges this 82-year period to be sufficient to provide a reasonable range of potential hydrologic conditions from wet years to critically dry years. The 2017 Report estimates the long-term average deliverability at 62% of maximum Table A Amounts, the same figure as presented in the 2015 Report. Because the 2017 Report incorporates recent drought-related data pertaining to low allocations in the years 2013-2015, the 62% long-term average deliverability figure set forth in said report is used in this Engineer's Report.

4) Conclusion

In conclusion, the Coachella Valley Groundwater Basin (and its subbasins) is in an overdraft condition and will most likely remain so, even with the importation and exchange of available SWP water, until a higher proportion of the maximum SWP Table A allocations becomes available. With maximum Table A allocations, recharge in the WWR and MC Management Areas would offset the current annual overdraft, although overdraft in future years is virtually unpredictable, due to the difficulty of projecting long-term growth and reliability of SWP supplies.

6. Replenishment Assessment

For the WWR Management Area, DWA began its groundwater assessment program in fiscal year 1978/1979 and CVWD began its groundwater assessment program in fiscal year 1980/1981. For the MC Management Area, the two agencies initiated their groundwater assessment programs simultaneously in fiscal year 2003/2004. The two agencies are not required to implement the assessment procedure jointly or identically; however, they have each continuously levied an annual assessment on water produced

within their respective jurisdictions since inception of their groundwater assessment programs.

Since the 2013 MC/GH WMP demonstrates that the GH benefits from the groundwater replenishment activities in the two adjacent subbasins, pursuant to the 2004 Settlement Agreement between CVWD, DWA, and MSWD; DWA and CVWD have the authority establish a groundwater assessment program for the GH. DWA's replenishment assessment program was initiated in this subbasin in fiscal year 2015/2016. Currently, there is no assessable production in the Garnet Hill Subbasin within CVWD's WWR AOB.

Desert Water Agency Law requires the filing of an engineer's report regarding the Replenishment Program before DWA can levy and collect groundwater replenishment assessments. The report must address the condition of groundwater supplies, the need for groundwater replenishment, the Areas of Benefit, water production within said Areas of Benefit, and replenishment assessments to be levied upon said water production. It must also contain recommendations regarding the replenishment program. This report has been prepared in accordance with these requirements.

CHAPTER III
WHITEWATER RIVER SUBBASIN
PRODUCTION AND REPLENISHMENT

CHAPTER III
WEST WHITEWATER RIVER SUBBASIN MANAGEMENT AREA PRODUCTION AND REPLENISHMENT

A. GROUNDWATER PRODUCTION

Annual water production (groundwater extractions plus surface water diversions) within the West Whitewater River Subbasin (WWR) Management Area averaged about 93,000 AF from 1965 through 1967, and then increased to approximately 187,000 AF in 1990. It then decreased to approximately 174,000 AF in 1991, coincident with the initiation of significant deliveries of recycled water by CVWD and DWA to irrigation users within the Management Area (which had the effect of temporarily reversing the trend toward steadily increasing production of groundwater therein).

Due to development, production increased sharply to about 187,000 AF in 1997 and to about 208,000 AF in 1999. It then averaged about 211,000 AF during the three-year period 2000 through 2002 and remained relatively stable through 2007, probably as a result of water conservation and increased use of recycled water, and (within CVWD's AOB) conversion of agricultural land to residential development, which leveled off in 2000. Production has decreased following 2007 due to poor economic conditions reducing demands for construction water and water conservation programs implemented by both agencies.

During the past five calendar years (2013 through 2017), average annual water production within the WWR Management Area has been about 162,000 AF/Yr, approximately three-fourths of which took place within CVWD's AOB and approximately one-fourth within DWA's AOB. Current (2017 calendar year) and historic groundwater production and surface water diversion data for the WWR Management Area is set forth in **Table 1**.

B. NATURAL RECHARGE

Natural recharge includes precipitation, surface water runoff, and subsurface inflow. It is currently estimated that natural inflow into the WWR Management Area is approximately 52,000 AF/Yr, while natural outflow is currently estimated at approximately 22,600 AF/Yr (MWH 2011). Thus, approximately 29,400 AF (natural inflow less natural outflow) of natural, or native, groundwater is available for water supply each year.

C. NON-CONSUMPTIVE RETURN

Consumptive use of water represents the use of water that is not returned to the aquifer (for example, water that is evapotranspirated into the atmosphere, water that is incorporated into biomass or manufactured products, and water that is exported). Non-consumptive return water is water that is ultimately returned to the aquifer after use (for example, irrigation water percolating beyond the root zone or treated wastewater discharged to percolation ponds or leach fields) or water used for public parks or golf course irrigation (wastewater recycled for irrigation use). Although non-consumptive return in the WWR Management Area has been estimated at approximately 40% (USGS 1974) and 35% (USGS 1992), CVWD's 2010 Update to the Coachella Valley Water Management Plan (and 2014 Status Report to that plan) incorporated groundwater modeling by MWH (now a part of Stantec) which projected that non-consumptive return may decrease from 35% to approximately 30% through 2035 based on the effects of implementing water conservation measures, such as turf removal and more efficient irrigation practices. According to the model, the overall non-consumptive return for 2017 was projected to be approximately 33%. However, MWH and Krieger & Stewart have recently conducted efforts to more accurately characterize non-consumptive return by quantifying water use categories; with estimates made for water percolated via agricultural and landscaping irrigation return, wastewater treatment plant and septic tank discharge, and water recycling activities within each Management Area of the Coachella Valley, and considering such factors as transfers of produced water between subbasins. This effort has resulted in a current estimate for non-consumptive use within the WWR Management Area of approximately 32% of total estimated groundwater production, which percentage is used herein.

D. ARTIFICIAL REPLENISHMENT

Total artificial replenishment (to both the WWR and MC Management Areas) for 2017 was 395,242 AF (including CVWD's MWD Quantitative Settlement Agreement purchases). Of this quantity, 385,994 AF were delivered to the Whitewater River Replenishment Facility (the largest annual delivery to Whitewater in history), and 9,248 AF were delivered to the Mission Creek Replenishment Facility. 35,000 AF of this quantity were delivered under CVWD's Second Supplemental Agreement to their Delivery and Exchange Agreement for the Delivery of 35,000 AF, dated June 14, 2013. (see **Exhibit 6**).

E. GROUNDWATER IN STORAGE

Average annual reported production within the WWR Management Area of 162,000 AF for the past five years (including approximately 500 AF of annual production by minimal pumpers) has been met with approximately 29,400 AF of net natural recharge, approximately 49,800 AF of non-consumptive return, and 88,700 AF of net artificial recharge (less evaporative losses), resulting in a net increase in groundwater in storage of about 5,900 AF/Yr over the past five years.

F. OVERDRAFT STATUS

Based on information contained in USGS Water Resources Investigations 77-29 and 91-4142, average gross annual groundwater overdraft within the WWR Management Area of the Coachella Valley Groundwater Basin began in the 1950s and was estimated to be 30,000 AF/Yr during the late 1960s and early 1970s. It is now estimated to be as much as three times greater. Gross groundwater overdraft within the WWR Management Area (excluding artificial recharge) is now estimated to have averaged approximately 87,000 AF/Yr over the last five years. Since 1956, cumulative gross overdraft (net pumpage minus net natural recharge) is currently estimated at approximately 3,876,000 AF, and cumulative net overdraft (cumulative gross overdraft offset by artificial recharge) is currently estimated to be about 624,000 AF.

CHAPTER IV
MISSION CREEK SUBBASIN
PRODUCTION AND REPLENISHMENT

CHAPTER IV
MISSION CREEK SUBBASIN MANAGEMENT AREA
PRODUCTION AND REPLENISHMENT

A. GROUNDWATER PRODUCTION

Annual water production (groundwater extractions) within the Mission Creek Subbasin (MC) Management Area increased from an average of approximately 500 AF/Yr in the late 1950s and 1960s to approximately 2,300 AF/Yr in 1978. It increased relatively steadily since then to approximately 17,400 AF/Yr in 2006, then began dropping slightly as a result of declining economic conditions to about 16,400 AF/Yr in 2007, 15,800 AF/Yr in 2008, 15,100 AF/Yr in 2009, 14,300 in 2010, 14,200 in 2011, and 13,000 in 2015. Annual groundwater production within the MC Management Area has resulted in cumulative long-term groundwater overdraft, as evidenced by the steady decline of groundwater levels within the MC prior to commencement of recharge activities.

During the past five calendar years (2013 through 2017), average annual reportable water production within the MC Management Area has been about 14,000 AF/Yr; approximately two-thirds of which took place within DWA's AOB and approximately one-third within CVWD's AOB. Current (2017 calendar year) and historic groundwater production and surface water diversion data for the MC Management Area is set forth in **Table 1**.

B. NATURAL RECHARGE

Natural recharge includes precipitation, surface water runoff, and subsurface inflow. As discussed in past reports, it is currently estimated that natural inflow and surface recharge of the MC has averaged approximately 3,500 to 10,800 AF/Yr over the long term. Most estimates of natural outflow from the MC equal or exceed the corresponding estimates of natural inflow.

The most recent estimate for natural inflow into the MC was prepared by Psomas for the MC/GH WMP prepared by MWH in January 2013. Psomas estimated said natural inflow at approximately 9,340 AF/Yr, consisting of approximately 7,500 AF/Yr from mountain front runoff and precipitation under average conditions and approximately 1,840 AF/Yr from flows across the Mission Creek Fault from the Desert Hot Springs Subbasin. This estimate falls within the range of average natural inflow previously cited herein.

Psomas estimated natural outflow at approximately 6,000 AF/Yr, consisting of 4,000 AF/Yr of subsurface flow from the Banning Fault to the GH, 900 AF/Yr of evapotranspiration, and 1,100 AF/Yr of flow through semi-water bearing rocks, known as the Indio Hills, at the southeastern end of the MC.

C. NON-CONSUMPTIVE RETURN

Consumptive use and non-consumptive return are discussed in **Chapter III, Section C**. Within the MC Management Area, non-consumptive return is currently estimated at approximately 32% of total estimated production, or about 5,000 AF/Yr (average for the past five years).

D. ARTIFICIAL REPLENISHMENT

Total artificial replenishment (to both the WWR and MC Management Areas) for 2017 was 395,242 AF (including CVWD's MWD Quantitative Settlement Agreement purchases). Of this quantity, 9,248 AF were delivered to the Mission Creek Replenishment Facility. (see **Exhibit 6**).

Based on the production relationship between the Whitewater River Subbasin and the MC, in accordance with the Mission Creek Groundwater Replenishment Agreement, about 92% of imported water deliveries in 2018 will be directed to the WWR Management Area and 8% to the MC Management Area based on 2017 production (see **Exhibit 5**). For future years, the percentage of the total production is expected to range from 87% to 81% in the WWR Management Area and 12% to 19% in the MC Management Area through 2035 due to increased production (increased demands) in the MC Management Area due to anticipated population growth (MWH 2011, MWH 2013).

E. GROUNDWATER IN STORAGE

Average annual reported production within the entire MC Management Area of 14,000 AF for the past five years (including approximately 500 AF of annual production by minimal pumpers) has been met with approximately 3,300 AF of net natural recharge, approximately 5,000 AF of non-consumptive return, and 3,100 AF of net artificial recharge (less evaporative losses),

resulting in a net decrease in groundwater in storage of about 2,600 AF/Yr over the past five years.

The change in groundwater storage within DWA's MC AOB has also been estimated using changes in measured static water levels in wells within the AOB. Using the average static water levels in the wells in DWA's AOB, the average annual reduction in stored groundwater was 3,600 AF/Yr from 1955 through 2017, and 2,400 AF/Yr from 1998 through 2017 (see **Exhibit 4**).

F. OVERDRAFT STATUS

Gross groundwater overdraft within the MC (excluding artificial recharge) is now estimated at approximately 6,000 AF/Yr during the last five years. Since 1978, cumulative gross overdraft (net pumpage minus net natural recharge) is currently estimated at approximately 262,000 AF, and cumulative net overdraft (cumulative gross overdraft offset by artificial recharge) is currently estimated to be about 105,000 AF.

CHAPTER V
GARNET HILL SUBBASIN
PRODUCTION AND REPLENISHMENT

CHAPTER V
GARNET HILL SUBBASIN MANAGEMENT AREA
PRODUCTION AND REPLENISHMENT

A. GROUNDWATER PRODUCTION

During the past five calendar years (2013 through 2017), average annual water production within the Garnet Hill Subbasin (GH) Management Area has been about 310 AF/Yr; most, if not all, of which took place within DWA's GH AOB. There are no reporting groundwater pumpers within CVWD's service area in the GH, which is within CVWD's WWR AOB. Current (2017 calendar year) and historic groundwater production and surface water diversion data for the GH Management Area (DWA's GH AOB) are set forth in **Table 1**.

B. NATURAL RECHARGE

Natural recharge includes precipitation, surface water runoff, and subsurface inflow. The GH is separated from the Whitewater River Subbasin to the south by the Garnet Hill Fault and from the MC to the north by the Banning Fault.

As stated in the MC/GH WMP, the principle form of natural recharge within the GH comes from mountain-front runoff derived from precipitation and snow melt, as well as return flow from water use.

The GH receives no direct artificial recharge; however, it does receive artificial recharge via infiltration from the Whitewater River channel on the west end of the subbasin, subsurface flows from the MC, and subsurface flows from the Whitewater River Subbasin when water levels are high due to large volumes of artificial recharge at the Whitewater River Replenishment Facility (MWH 2013).

The estimated flow across the Banning Fault from the MC to the GH ranges from approximately 2,000 AF/Yr (Tyley 1974) to 8,250 AF/Yr (Psomas, 2010, based on pre-development, steady-state conditions). The outflow to the Whitewater River Subbasin is estimated to be approximately 4,000 AF/Yr (Psomas 2012, based on then current conditions).

C. NON-CONSUMPTIVE RETURN

Consumptive use and non-consumptive return are discussed in **Chapter III, Section C**. Within the GH Management Area, non-consumptive return is currently estimated at approximately 20% of production, or about 62 AF/Yr.

D. ARTIFICIAL REPLENISHMENT

Direct artificial groundwater replenishment has not yet been implemented within the GH. However, the 2013 MC/GH WMP has shown that the GH benefits from replenishment activities within both the Whitewater River Subbasin and the MC.

E. GROUNDWATER IN STORAGE

The quantity of groundwater in storage within the GH in 1974 was estimated to be approximately 1,520,000 AF (USGS 1974). Production in the subbasin has been limited, so groundwater in storage has not decreased significantly.

With minimal pumping occurring within the subbasin, cumulative groundwater storage in the GH was generally based on wet and dry periods and the introduction of imported water to the Coachella Valley. Changes in storage can be attributed to the rise and fall in the recorded groundwater levels observed in wells throughout the GH.

The recharge program in the WWR Management Area began in 1973, which resulted in rising water levels within the GH in rough proportion to the quantities recharged. Higher water levels in the WWR Management Area reduce the outflow from the GH across the Garnet Hill Fault, increasing storage volume in the GH.

F. OVERDRAFT STATUS

As part of the Coachella Valley Groundwater Basin, the GH is presumed to be in a state of overdraft since it is reliant on flows from the Whitewater River Subbasin and the MC for replenishment, in accordance with the conclusions set forth in the MC/GH WMP.

CHAPTER VI
REPLENISHMENT ASSESSMENT

CHAPTER VI
REPLENISHMENT ASSESSMENT

Desert Water Agency Law, in addition to empowering DWA to replenish groundwater basins and to levy and collect water replenishment assessments within its areas of jurisdiction, defines production and producers for groundwater replenishment purposes as follows:

> Production: The extraction of groundwater by pumping or any other method within the Agency, or the diversion within the Agency of surface supplies which naturally replenish the groundwater supplies within the Agency and are used therein.
>
> Producer: Any individual, partnership, association, group, lessee, firm, private corporation, public corporation, or public agency including, but not limited to, the DWA, that extracts or diverts water as defined above.

Producers that extract or divert 10 AF of water or less in any one year are considered minimal pumpers or minimal diverters, and their production is exempt from assessment.

Desert Water Agency Law also states that assessments may be levied upon all water production within an AOB, provided assessment rates are uniform throughout. Pursuant to Desert Water Agency Law, the amount of any replenishment assessment cannot exceed the sum of certain SWP charges, specifically, the Delta Water Charge, the Variable OMP&R Component of the SWP Transportation Charge (Variable Transportation Charge), and the Off-Aqueduct Power Component of the SWP Transportation Charge (Off-Aqueduct Power Charge), pursuant to the Contract between DWA and the State of California. The aforesaid charges are set forth in each year's CDWR *Bulletin on the State Water Project* (CDWR Series 132, Appendix B, Tables B-16B, B-18, and B-21).

Prior to 2002, groundwater replenishment with Colorado River Water (exchanged for SWP water) had been limited to recharge of the West Whitewater River Subbasin (WWR) Management Area. In 2002, DWA and CVWD commenced recharge activities in the Mission Creek Subbasin (MC) Management Area, in addition to continuing their ongoing activities in the WWR Management Area. The Areas of Benefit for Groundwater Replenishment and Assessment herein consist of those portions of the West Whitewater River Subbasin Management Area (including a portion of the San Gorgonio Pass Subbasin

and tributaries thereto), the MC Management Area, and the Garnet Hill Subbasin (GH) Management Area, situated within DWA's service area boundary (**Figure 2**).

The groundwater replenishment assessment and replenishment assessment rate for 2018/2019 is based on the following:

1. All groundwater production within DWA and MSWD, with certain exceptions, is metered, and all assessable surface water diversions within DWA are metered or measured. There are no surface water diversions within the MC AOB or GH AOB.

2. The Delta Water Charge, the Variable Transportation Charge, and the Off-Aqueduct Power Charge, as set forth in Appendix B of the most recent CDWR Bulletin Series 132 and hereafter referred to as Applicable SWP Charges.

3. The proportionate share of the Applicable SWP Charges allocable to CVWD and DWA in accordance with the Water Management Agreements between CVWD and DWA (Water Management Agreement for the Whitewater River Subbasin executed July 1, 1976 and amended December 15, 1992, and the Water Management Agreement for the Mission Creek Subbasin executed April 8, 2003; both amended July 15, 2014), hereafter referred to as Allocated SWP Charges. (The applicable charges are essentially apportioned between CVWD and DWA in accordance with relative water production within those portions of each entity lying within the applicable Water Management Areas, either the Whitewater River Subbasin, the Mission Creek Subbasin, the Garnet Hill Subbasin, and a portion of the San Gorgonio Pass Subbasin.)

4. Certain charges or costs other than those derived pursuant to items 1, 2, and 3 above. Such additional charges may be offset from time to time by discretionary reductions.

The replenishment assessment rate comprises two components: (1) the Allocated SWP Charges attributable to the estimated annual Table A allocation, and (2) certain other charges or costs related to groundwater recharge, such as those for reimbursement of past surplus water charges for which assessments had not been levied.

The replenishment assessment rate, when applied to estimated assessable production (all production, excluding that which is exempt, within the AOB), results in a replenishment assessment which must not

exceed the maximum permitted by Desert Water Agency Law (the Applicable SWP Charges). Due to the interdependent nature of the imported water supply for the WWR Management Area (including a portion of the San Gorgonio Pass Subbasin), MC Management Area, and GH Management Area, the Allocated SWP Charges component of the replenishment assessment rate is uniform throughout the WWR Subbasin AOB, MC AOB, and GH AOB; however, due to the independent and separate nature of various other aspects of the groundwater replenishment program within the WWR AOB (including a portion of the San Gorgonio Pass Subbasins), MC AOB, and GH AOB, the other charges and costs component need not be uniform; they are specific to each AOB.

A. ACTUAL 2017 WATER PRODUCTION AND ESTIMATED 2018/2019 ASSESSABLE WATER PRODUCTION

Estimated assessable production within DWA's WWR AOB (including a portion of the San Gorgonio Pass Subbasin), MC AOB, and GH AOB consist of groundwater extractions from the groundwater subbasins and diversions from streams (Snow, Falls, and Chino Creeks) in the tributary watersheds. Estimated assessable groundwater production is based on water production which, with the exception of Bel Air Greens, whose well has not been metered or measured nor assessed, and Whitewater Ranch, whose wells are metered and measured but not assessed. Bel Air Greens and Whitewater Ranch wells are located within the Agua Caliente Band of Cahuilla Indian Reservation. DWA staff read and record metered water production quantities with the exception of the wells owned by MSWD and the Indigo Power Plant, which are reported to DWA. As discussed in previous reports, the past water production for Bel Air Greens has been estimated at 127 AF/yr. The Bel Air Greens golf course is now closed, and the property is currently being sold for residential and hotel development.

The effective replenishment assessment rate for Table A water is based on DWA's estimated Allocated SWP Charges for the current year (based on CDWR's projections for the assessment period) divided by the estimated assessable production for the assessment period, as set forth in **Table 6**. Historically, the estimated assessable production has been based on the assessable production for the previous year; however, production during 2015 and 2016 was unusually low due to mandatory water conservation measures imposed as a result of the Governor's April 1, 2015 executive order mandating water restrictions on urban water use statewide, and demanding a 32% reduction in water use within DWA. Only a portion of the effects of these severe water restrictions are anticipated to be permanent; therefore, for 2016/2017, DWA elected

to estimate assessable groundwater production based on the 2014 assessable groundwater production minus a factor of 10% to account for the effects of permanent water conservation measures. However, since the State urban water use restrictions were based on water usage in 2013 as a baseline, DWA elected, for 2017/2018 and 2018/2019, to estimate assessable groundwater production based on the 2013 assessable groundwater production minus a factor to account for the effects of permanent water conservation measures. For 2017/2018, the factor was 15%; for 2018/2019 the factor is 13%, and is applied only to producers within the West Whitewater River Subbasin AOB. Anticipated production within MC and GH is estimated based on 2017 production.

Estimated assessable water production is set forth in **Table 2**.

In 2017, actual reported production within CVWD's AOB within the WWR Management Area was about 3.5 times that within DWA's AOB, 120,383 AF versus 34,689 AF, whereas actual production within DWA's AOB within the MC Management Area was about 2.2 times that within CVWD's AOB, 9,250 AF versus 4,281 AF. Production within DWA's GH AOB accounts for 100% of the total production, at 471 AF. DWA's 2017 actual production accounts for approximately 26.3% of the 169,074 AF combined total of water produced within the Management Areas that year.

B. WATER REPLENISHMENT ASSESSMENT RATES

The water replenishment assessment rates consist of two components, one being attributable to SWP annual Table A water allocations, and the other being attributable to other charges or costs necessary for groundwater replenishment. Each component is discussed below.

1. Component Attributable to SWP Table A Water Allocation Charges

In accordance with the current 2014 Water Management Agreement, CVWD and DWA combine their SWP Table A water allocations, exchange them for Colorado River water, and replenish the WWR and MC Management Areas with exchanged Colorado River water. CVWD and DWA each assume the full burden for portions of their respective Fixed State Water Project Charges (Capital Cost Component and Minimum Operating Component of Transportation Charge); however, the two agencies share their Applicable

SWP Charges (Delta Water, Variable Transportation, and Off-Aqueduct Power Charges) on the basis of relative production.

Although DWA could base its replenishment assessment rate on its Applicable SWP Charges, it only needs to recover its share (based on relative production) of the combined Applicable SWP Charges for both CVWD and DWA (i.e. its Allocated SWP Charges). CVWD makes up the difference in accordance with the Water Management Agreement.

The Applicable SWP Charges for CVWD and DWA for Table A water are set forth in **Tables 3 and 4**, respectively. Unit Charges for Delta Water, Variable Transportation, and Off-Aqueduct Power Charges are based on estimates presented in Appendix B of CDWR Bulletin 132-17.

Since CDWR has been unable to deliver maximum Table A allocations for 17 of the past 18 years, the amounts of the Applicable SWP Charges for 2018/2019 and future years are computed based on a long-term SWP reliability factor applied to the maximum SWP allocations. From 2013 through 2017, a factor of 58% was applied; a factor of 62% is being applied in 2018.

Since the 2003 Exchange Agreement allows MWD to call-back or recall the 100,000 AF of Table A allocation it transferred to CVWD and DWA, the amounts of the Applicable SWP Charges from 2004/2005 through 2017/2018 and future years have been computed with the MWD transfer portion being further reduced by another long-term reliability factor to account for possible future recalls pursuant to the 2003 Exchange Agreement (typically 35%). However, according to MWD management, it is unlikely that MWD will recall any water for the foreseeable future. Therefore, commencing with this report, it is assumed that MWD will not recall any of its transfer portion. This change has the effect of increasing the estimated delivery of State Project water for future years, including the 2018/2019 fiscal year, thus raising the replenishment assessment rate necessary to cover anticipated importation costs.

The derivations of the Applicable SWP Charges are set forth in **Tables 3 and 4**. The "Maximum Table A Water Allocation" shown in **Tables 3 and 4** is the currently existing Table A Water Allocation per CDWR Bulletin 132-17, Appendix B, Table B-4

(contractual quantities based on requests for same by CVWD and DWA) with no reliability factors being applied. The "Probable Table A Water Allocation" is the currently existing Table A Water Allocation. The MWD reliability factor was formerly applied to the Probable Table A Allocation column to reflect the long-term average with probable recalls by MWD, pursuant to the remaining years of the 2003 Exchange Agreement and its implementation. The "Probable Table A Water Delivery" is based on 62% reliability of the probable Table A Water allocation.

It should be noted that the increase of the SWP reliability factor from 58% to 62% and the elimination of the MWD reliability factor will result in higher estimates for future deliveries--including for 2018/2019--than previously projected during the Proposition 218 proceedings; and, consequently, higher estimates for effective Table A assessment rates.

Applicable SWP Charges proportioned in accordance with the Water Management Agreement, more particularly in accordance with relative production within CVWD and DWA, yield Allocated SWP Charges. Over the past five years, 2013 through 2017, DWA has been responsible for approximately 21.9% of the water produced within the WWR Management Area, and 68.6% of water produced from the MC Management Area.

In the past, Allocated SWP Charges have been apportioned to CVWD and DWA based on production from the WWR Management Area. Since 2003/2004, Allocated SWP Charges have been apportioned to CVWD and DWA based on production from the combined WWR and MC Management Areas. In 2017, DWA was responsible for approximately 26.3% of the combined water production within the Management Areas. On the assumption that DWA's relative production for 2018 and thereafter will be about the same as for 2017, DWA's share of the combined Applicable SWP Charges (i.e. Allocated Charges) for the next 18 years will be as set forth in **Table 5**.

Table 5 shows that DWA's estimated Allocated Charges (its share of combined Applicable Charges for Table A water) are anticipated to increase by about 42% between 2017 and 2018, decrease by about 3% between 2018 and 2019 and increase by about 5% between 2019 and 2020. DWA's estimated Allocated Charges will change as estimates presented in future annual editions of CDWR Bulletin 132 change.

Table 5 also shows that DWA's estimated 2018 Allocated Charges are about 91% of DWA's estimated Applicable Charges. Since water replenishment assessments must be used for groundwater replenishment purposes only, implementation of the maximum permissible replenishment assessment rate based on DWA's Applicable Charges would result in the collection of excess funds that would have to be applied to replenishment charges during subsequent years.

Rather than collect excess funds one year and apply the excess funds to replenishment charges in subsequent years, DWA attempts to establish from year to year the replenishment assessment rate that will result in collection of essentially the funds necessary to meet its annual groundwater replenishment charges. DWA therefore bases the Table A portion of its replenishment assessment on estimated Allocated Charges, rather than estimated Applicable Charges.

Pursuant to current Desert Water Agency Law, the maximum permissible replenishment assessment rate that can be established for fiscal year 2018/2019 is $214.32/AF, based on DWA's estimated Applicable Charges (Delta Water Charge, Variable Transportation Charge, and Off-Aqueduct Power Charge) of $9,488,016 (average of estimated 2018 and 2019 Applicable Charges) and estimated 2018/2019 combined assessable production of 44,270 AF within the WWR, MC, and GH AOBs.

The effective replenishment rate is based on DWA's estimated Allocated SWP Charges for the current year, as computed using CDWR's projected Applicable SWP Charges, divided by the estimated assessable production for the assessment period (based on the assessable production for the previous calendar year), as set for in **Table 6**.

According to the terms of the Water Management Agreement between DWA and CVWD, and based on DWA's estimated 2018/2019 Allocated Charges of $8,659,340 and estimated 2018 calendar year assessable production (shown in **Table 6** as estimated 2018/2019 assessable production) of 44,270 AF within the Whitewater River, MC, and GH, the effective replenishment assessment rate component for Table A water for the 2018/2019 fiscal year is $196/AF. **Table 7** includes DWA's historical estimated, actual effective, and estimated projected replenishment assessment rates.

Tables 3 through 7 include future projections through 2035. These projections are based on a number of assumptions regarding factors that can be highly variable and difficult to predict, such as development, conservation, and, as mentioned, State Water Project reliability and cost factors. Actual values in the future may be substantially different than as shown in these tables.

2. Component Attributable to Other Charges and Costs Necessary for Groundwater Replenishment

Charges and costs necessary for groundwater replenishment could include the costs for reimbursement for past SWP Table A water allocations and surplus water allocations for which insufficient assessments had been levied, acquisition or purchases of water from sources other than the SWP, the cost of importing and recharging water from sources other than the SWP, and the cost of treatment and distribution of reclaimed water.

Currently, other charges and costs are being limited to past SWP water payments for which assessments have not been levied. Due to increases in SWP costs, DWA elected last year to transfer the deficit resulting from past payments for which assessments have not been levied to reserve account(s).

Since 1996, CVWD and DWA have obtained surplus SWP water, when available, to supplement deliveries of Table A water (see **Chapter II, Section B.5.d**). DWA currently pays charges for surplus water with funds from its Unscheduled State Water Project Deliveries Reserve Account, rather than from funds raised directly through replenishment assessment levies.

The charges levied on the producers within the GH AOB are assessed as part of the replenishment programs for the WWR and MC Management Areas based on the proportional production, in accordance with the Mission Creek Subbasin Settlement Agreement discussed in **Chapter II, Section B.3**. As shown in **Exhibit 5**, the portion of total production within the Whitewater River Subbasin and MC was approximately 92% and 8% respectively for 2017. Therefore, since there is no direct replenishment program for the GH, and since it benefits from both replenishment programs, the total production

within the GH will be assessed as a proportion of the total production within those subbasins. For example, the total assessable production within the GH was 470 AF in 2017. Of that 470 AF, 92% (432 AF) is assessed as part of the Whitewater River Subbasin, and 8% (38 AF) as part of the MC.

3. Proposition 218 Proceedings

DWA held Proposition 218 proceedings in the winter of 2016, including a public hearing on December 15, 2016. During the public hearing, DWA received comments and tallied protests regarding the proposed replenishment assessment rate ranges for the next five years, as shown in the table below.

Fiscal Year	Anticipated Adoption Date	Rate Range ($/AF)
2017/2018	July 1, 2017	$110.00 to $130.00
2018/2019	**July 1, 2018**	**$120.00 to $140.00**
2019/2020	July 1, 2019	$125.00 to $155.00
2020/2021	July 1, 2020	$130.00 to $165.00
2021/2022	July 1, 2021	$130.00 to $175.00

Protests were received from less than 50% of the affected parcels.

On December 4, 2017, the California Supreme Court held, in the case of *City of San Buenaventura v. United Water Conservation District*, that groundwater pumping charges are not property-related charges subject to Proposition 218. However, current regulations developed to codify the Sustainable Groundwater Management Act (SGMA) still state that a Groundwater Sustainability Agency that adopts a groundwater sustainability plan may impose fees to fund the costs of groundwater management, but such fees "shall be adopted" in accordance with Proposition 218. If the SGMA regulations are amended to remove this requirement, future Proposition 218 proceedings for DWA's groundwater replenishment assessment may not be necessary.

4. Proposed 2018/2019 Replenishment Assessment Rates

As shown in **Table 6**, the estimated effective Table A Assessment Rate is $196/AF, which includes consideration of an increase of the SWP reliability factor from 58% to 62%, and the elimination of the separate MWD reliability factor (MWD reliability factor effectively set to 100%, but still subject to the 62% SWP reliability factor). However, this rate exceeds the maximum rate of $140/AF established in the Proposition 218 proceedings for 2018/2019. Therefore, as shown in **Table 7**, the recommended replenishment assessment rates proposed for 2018/2019 are:

- **$140.00/AF** for the West Whitewater River Subbasin (WWR) AOB,
- **$140.00/AF** for the Mission Creek Subbasin (MC) AOB, and
- **$140.00/AF** for the Garnet Hill Subbasin (GH) AOB.

Historic replenishment assessment rates for both DWA and CVWD within the Whitewater River Subbasin are included in **Exhibit 7**.

C. ESTIMATED WATER REPLENISHMENT ASSESSMENTS FOR 2018/2019

The maximum replenishment assessment that can be levied by DWA for combined estimated production of 44,270 AF (see **Table 2**) within the WWR, MC, and GH AOBs based on a replenishment assessment rate of $140.00/AF is approximately $6,197,800 ($4,837,000 in the WWR AOB, $1,295,000 in the MC AOB, and $65,800 in the GH AOB).

DWA will continue to be the major producer within the WWR AOB, with assessable production of approximately 33,060 AF; seven other producers will be responsible for the remaining 1,490 AF of estimated assessable production. DWA will also be the major assessee with an estimated replenishment assessment of $4,628,400. The seven other producers will be responsible for the remaining $208,600. DWA will therefore be responsible for approximately 96% of both the estimated assessable water production and the estimated replenishment assessment for the WWR AOB; the other seven producers will be responsible for the remaining 4%.

MSWD will be the major producer within the MC AOB, with assessable production of approximately 7,210 AF; four other producers will be responsible for the remaining 2,040 AF of estimated assessable production. MSWD will also be the major assessee with an estimated replenishment assessment of $1,009,400. The four other producers will be responsible for the remaining $285,600. MSWD will be responsible for approximately 78% of both the estimated assessable water production and the estimated replenishment assessment in the MC AOB; the other four producers will be responsible for the remaining 22%.

MSWD and the Indigo Power Plant are the major producers in the GH AOB, with assessable production of approximately 450 AF and 20 AF, respectively. MSWD will also be the major assessee with an estimated replenishment assessment of $63,000, while the Indigo Power Plant is responsible for the remaining $2,800. MSWD will be responsible for approximately 96% of both the estimated assessable water production and the estimated replenishment in the GH AOB; Indigo Power Plant will be responsible for the remaining 4%.

CHAPTER VII
BIBLIOGRAPHY

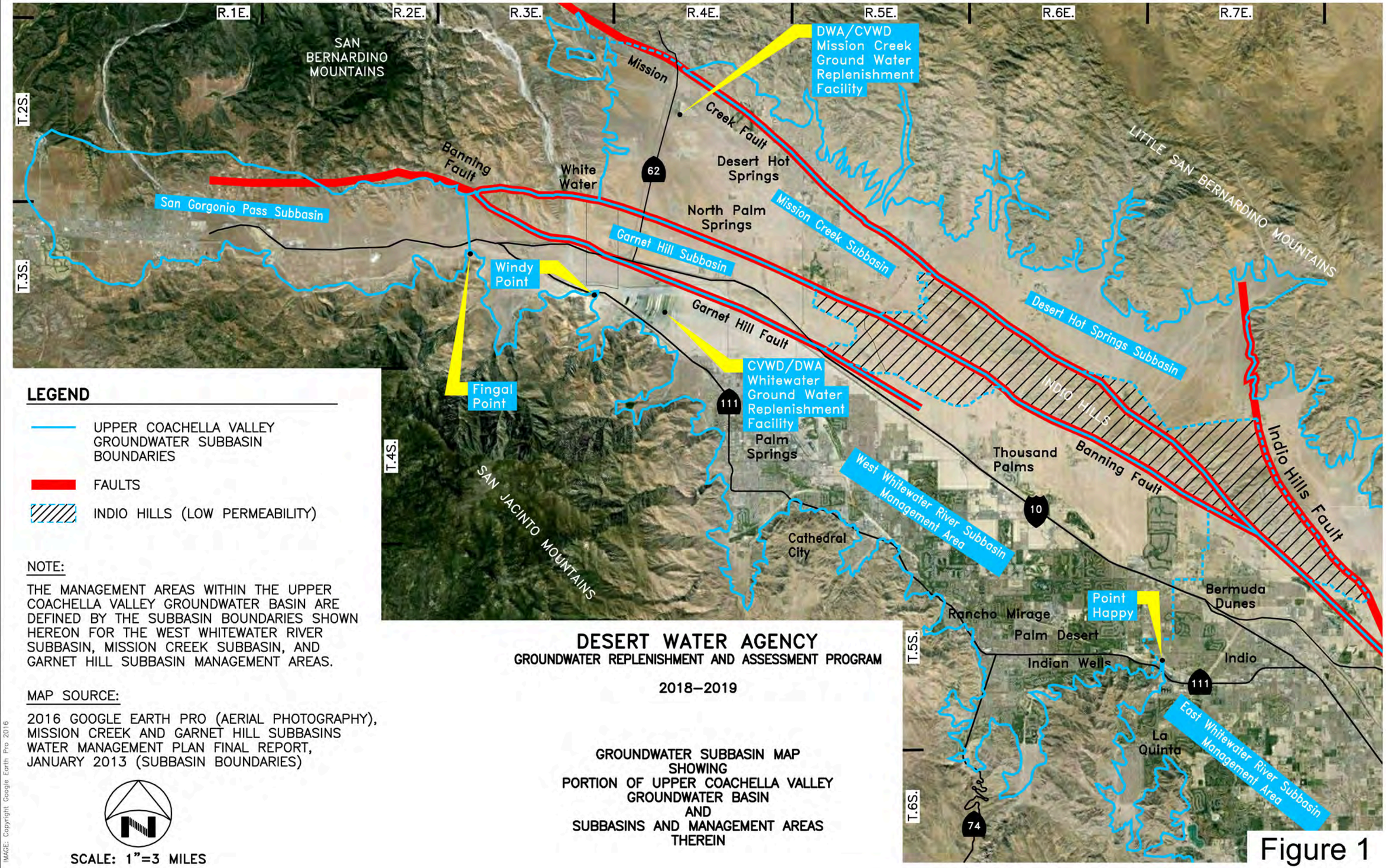
CHAPTER VII
BIBLIOGRAPHY

- Coachella Valley Regional Water Management Group (City of Coachella, Coachella Valley Water District, Desert Water Agency, Indio Water Authority, and Mission Springs Water District), *Final Coachella Valley Integrated Regional Water Management Plan*, prepared by Coachella Valley Regional Water Management Group in collaboration with the Planning Partners, with support from RMC Water and Environment and Integrated Planning and Management Inc., December 2010
- Coachella Valley Water District, *Coachella Valley Water Management Plan*, November 2002
- Coachella Valley Water District, *Final Program Environmental Impact Report for the Coachella Valley Water Management Plan and State Water Project Entitlement Transfer*, prepared by MWH, 2002
- Coachella Valley Water District, *Coachella Valley Water Management Plan Update*, prepared by MWH, 2010
- Coachella Valley Water District, *2014 Status Report for the 2010 Coachella Valley Water Management Plan Update*, prepared by MWH, 2014
- Coachella Valley Water District, *Engineer's Report on Water Supply and Replenishment Assessment, Mission Creek Subbasin Area of Benefit, West Whitewater River Subbasin Area of Benefit, and East Whitewater River Subbasin Area of Benefit, 2017-2018*, April 2017
- Coachella Valley Water District, *Engineer's Report on Water Supply and Replenishment Assessment, Mission Creek Subbasin Area of Benefit, West Whitewater River Subbasin Area of Benefit, and East Whitewater River Subbasin Area of Benefit, 2018-2019*, April 2018
- Desert Water Agency, *Domestic Water System General Plan, 2008*, prepared by Krieger & Stewart, May, 2009
- Desert Water Agency, *Engineer's Report on Basin Water Supply and Water Replenishment Program*, prepared by Krieger & Stewart, May 1978, Revised June 1978
- Desert Water Agency, *Ground Water Recharge Potential within Mission Creek Subbasin*, prepared by Krieger & Stewart, November 1980
- Desert Water Agency, *Engineer's Report: Groundwater Replenishment and Assessment Program for the Whitewater River, Mission Creek, and Garnet Hill Subbasins 2016/2017*, prepared by Krieger & Stewart, May 2016
- Desert Water Agency, *Engineer's Report: Groundwater Replenishment and Assessment Program for the Whitewater River, Mission Creek, and Garnet Hill Subbasins 2017/2018*, prepared by Krieger & Stewart, May 2017

- Desert Water Agency, *Engineer's Report: Groundwater Replenishment and Assessment Program for the Mission Creek Subbasin*, reports prepared annually by Krieger & Stewart for Fiscal Years 2003/2004 through and including 2015/2016
- Desert Water Agency, *Engineer's Report: Groundwater Replenishment and Assessment Program for the Whitewater River Subbasin*, reports prepared annually by Krieger & Stewart for Fiscal Years 1978/1979 through and including 2015/2016
- Desert Water Agency, *2015 Urban Water Management Plan*, prepared by Krieger & Stewart, June 2016
- Fogg, Graham E., Gerald T. O'Neill, Eric M. LaBolle, David J. Ringel, *Groundwater Flow Model of Coachella Valley, California: An Overview*, November 2002
- Desert Water Agency, Inc., *Hydrogeologic Investigation of Groundwater Basin Serving Palm Springs*, prepared by Geotechnical Consultants, October 1978
- Geotechnical Consultants, Inc., *Hydrogeologic Investigation: Mission Creek Subbasin Within the Desert Hot Springs County Water District*, prepared for Desert Water Agency, November 1979
- Huberty, M.R. and A.F. Pillsbury, *Hydrologic Studies in Coachella Valley, California*, University of California, Berkeley 1948
- Krieger & Stewart, *Coachella Valley Groundwater Management Plan for the Coachella Valley Planning Area of the West Colorado River Basin*, 1979
- Mission Springs Water District, *Mathematical Modeling of Proposed Artificial Recharge for the Mission Creek Subbasin*, prepared by Mayer, Alex S. and Wesley L. May, Michigan Technological University Department of Geological Engineering and Sciences, March 1998
- Mission Springs Water District, *Hydrogeologic Conditions near Mission Springs Water District Well Nos. 25 and 26, Cabazon Area, Riverside County*, prepared by Richard C. Slade and Associates, LLC, September 2001
- MWH, Groundwater Model Simulations for *Coachella Valley Water Management Plan Update*, for Draft Subsequent Program Environmental Impact Report, July 2011
- MWH, *Mission Creek and Garnet Hill Subbasins Water Management Plan, Final Report*, January 2013
- Psomas, *Groundwater Flow Model of the Mission Creek and Garnet Hill Subbasins and Palm Springs Subarea, Riverside, California*, January 2013
- Richard C. Slade and Associates, LLC, *Final Hydrogeologic Evaluation, Well Siting, And Recharge Potential Feasibility Study Mission Creek Groundwater Subbasin, Riverside County, California*, May 2000

- San Gorgonio Pass Water Agency, *Water Resources Investigation – Groundwater Dependable Yield*, prepared by Boyle Engineering Corporation, 1998
- State of California, The Resources Agency, Department of Conservation, Division of Mines and Geology, *Geologic Map of California, Santa Ana Sheet*, 1966
- State of California, The Resources Agency of California, Department of Water Resources, *Bulletin No. 108, Coachella Valley Investigation*, July 1964
- State of California, The Resources Agency, Department of Water Resources, *Coachella Valley Area Well Standards Investigation*, 1979
- State of California, The Resources Agency, Department of Water Resources, *Management of the California State Water Project, Bulletin 132-17*, August 2017
- State of California, The Resources Agency, Department of Water Resources, *California's Groundwater, Bulletin 118*, October 2003
- State of California, The Resources Agency, Department of Water Resources; *State Water Project Final Reliability Report 2013*, December 2014
- State of California, The Resources Agency, Department of Water Resources; *2015 State Water Project Deliverability Capability Repor*t, July 2015
- State of California, The Resources Agency, Department of Water Resources; *2017 State Water Project Deliverability Capability Repor*t, March 2018
- United States Department of the Interior, Geological Survey; Artificial Recharge in the Whitewater River Area, Palm Springs, California, 1973
- United States Department of the Interior, Geological Survey Water-Supply Paper 2027; *Analog Model Study of the Ground-Water Basin of the Upper Coachella Valley, California*, 1974
- United States Department of the Interior, Geological Survey; *Water Resources Investigation 77-29: Predicted Water-Level and Water-Quality Effects of Artificial Recharge in the Upper Coachella Valley, California, Using a Finite-Element Digital Model*, April 1978
- United States Department of the Interior, Geological Survey; *Water Resources Investigation 91-4142: Evaluation of a Ground-Water Flow and Transport Model of the Upper Coachella Valley, California*, 1992

FIGURES



LEGEND

- UPPER COACHELLA VALLEY GROUNDWATER SUBBASIN BOUNDARIES
- FAULTS
- INDIO HILLS (LOW PERMEABILITY)

NOTE:

THE MANAGEMENT AREAS WITHIN THE UPPER COACHELLA VALLEY GROUNDWATER BASIN ARE DEFINED BY THE SUBBASIN BOUNDARIES SHOWN HEREON FOR THE WEST WHITEWATER RIVER SUBBASIN, MISSION CREEK SUBBASIN, AND GARNET HILL SUBBASIN MANAGEMENT AREAS.

MAP SOURCE:

2016 GOOGLE EARTH PRO (AERIAL PHOTOGRAPHY), MISSION CREEK AND GARNET HILL SUBBASINS WATER MANAGEMENT PLAN FINAL REPORT, JANUARY 2013 (SUBBASIN BOUNDARIES)

SCALE: 1"=3 MILES

DESERT WATER AGENCY

GROUNDWATER REPLENISHMENT AND ASSESSMENT PROGRAM

2018–2019

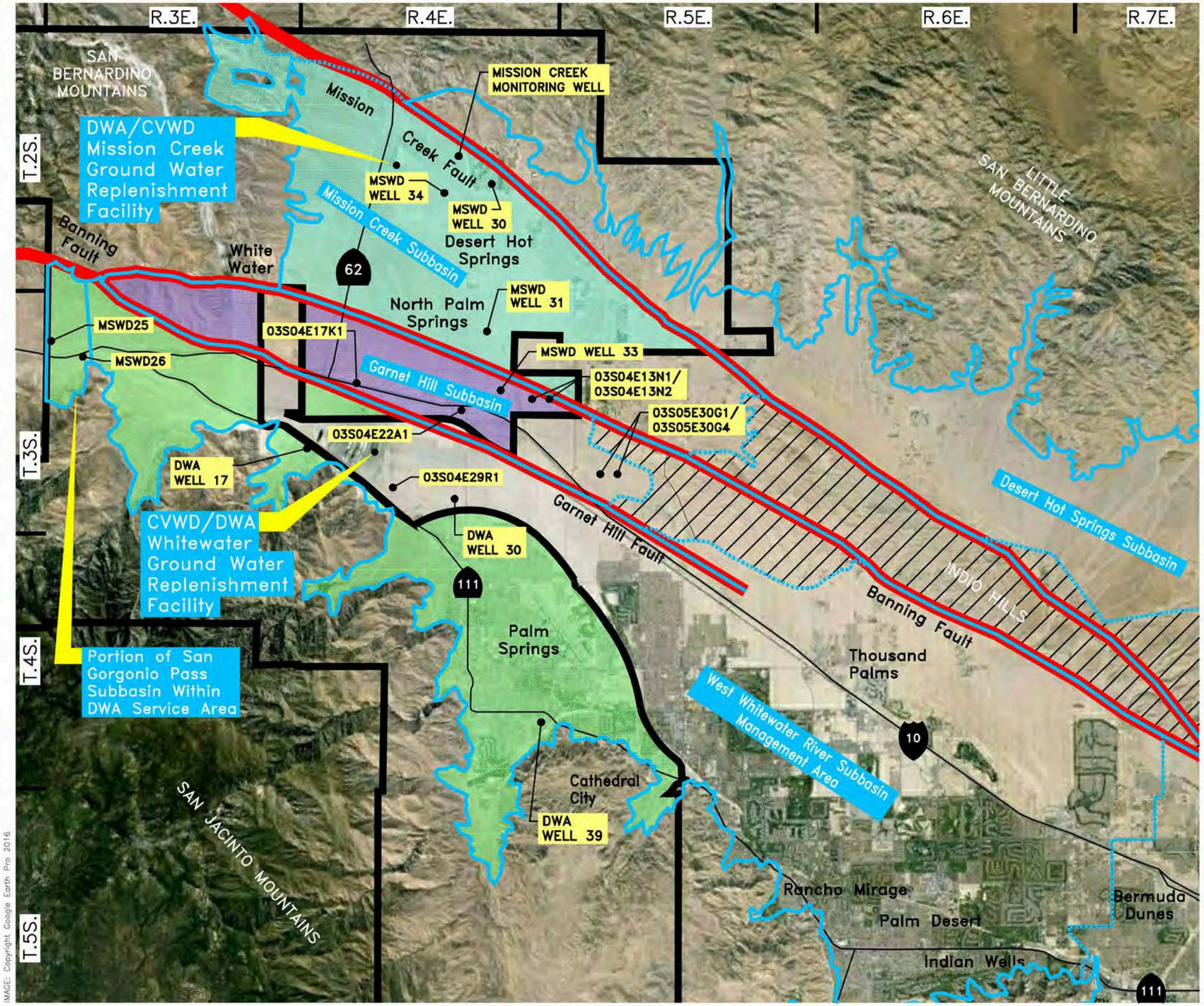
GROUNDWATER SUBBASIN MAP
SHOWING
PORTION OF UPPER COACHELLA VALLEY
GROUNDWATER BASIN
AND
SUBBASINS AND MANAGEMENT AREAS
THEREIN

Figure 1

DESERT WATER AGENCY
GROUNDWATER REPLENISHMENT AND ASSESSMENT PROGRAM

2018–2019

GROUNDWATER SUBBASIN MAP SHOWING GROUNDWATER RECHARGE AREAS OF BENEFIT (EITHER DIRECT OR INDIRECT) AND SELECTED GROUNDWATER WELLS



LEGEND

- DWA BOUNDARY
- UPPER COACHELLA VALLEY GROUNDWATER SUBBASIN BOUNDARIES
- FAULTS

UPPER COACHELLA VALLEY GROUNDWATER SUBBASIN AREAS OF BENEFIT WITHIN DWA

- DWA WHITEWATER RIVER SUBBASIN AREA OF BENEFIT
- DWA MISSION CREEK SUBBASIN AREA OF BENEFIT
- DWA GARNET HILL SUBBASIN AREA OF BENEFIT
- INDIO HILLS (LOW PERMEABILITY)
- GROUNDWATER WELL

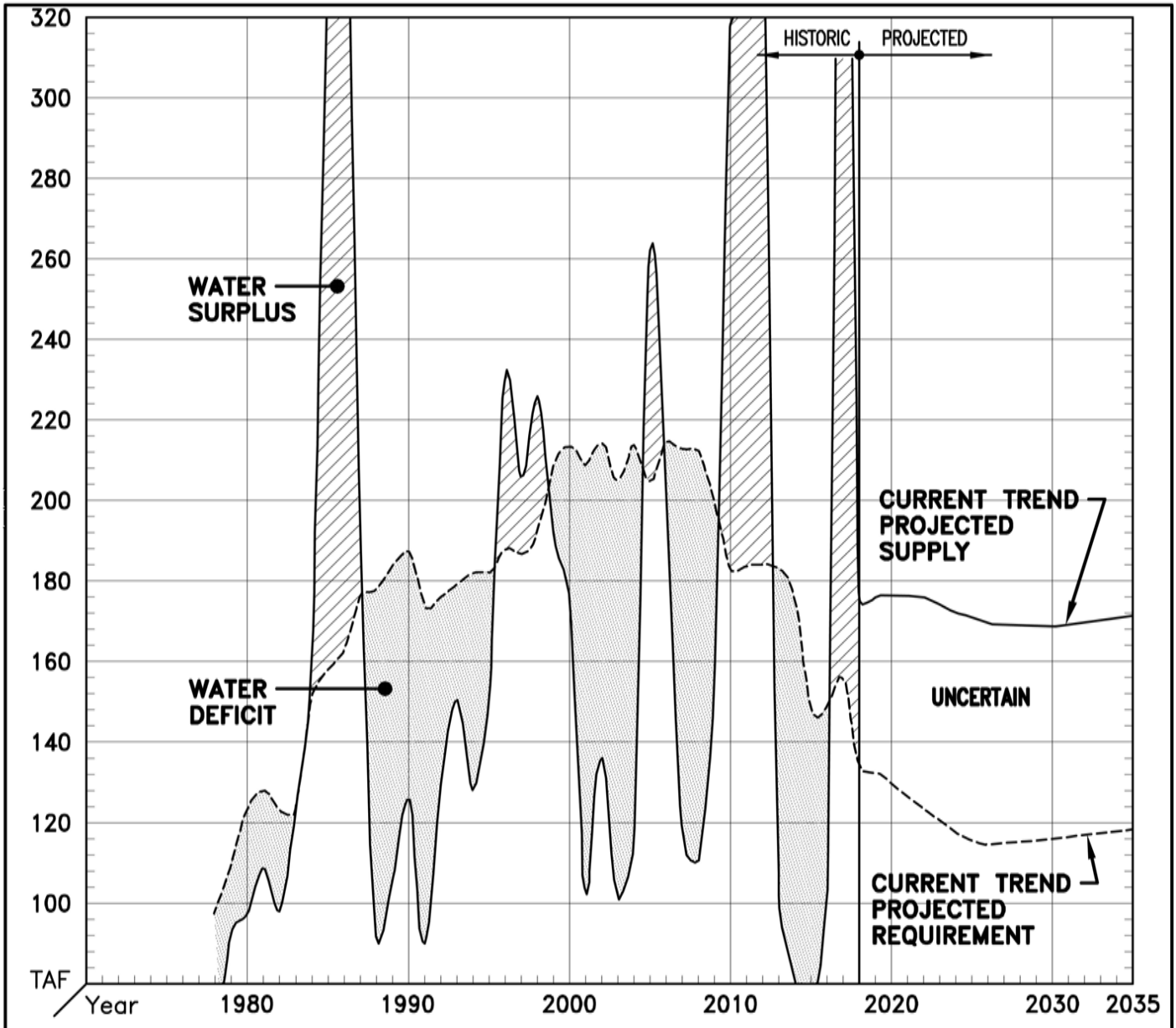
MAP SOURCE:

2016 GOOGLE EARTH PRO (AERIAL PHOTOGRAPHY), MISSION CREEK AND GARNET HILL SUBBASINS WATER MANAGEMENT PLAN FINAL REPORT, JANUARY 2013 (SUBBASIN BOUNDARIES)

SCALE: 1"=2.5 MILES

Figure 2

\101\33p42\Drawings\Figures\101-33p42f2.dwg



YEARS	1980	1990	2000	2010	2020	2030	2035
NET INFLOW (ACRE FEET)	98,000	125,800	174,500	317,100	176,739	1687,609	171,683
NONCONSUMPTIVE RETURN	43,200	65,700	74,500	64,300	42,000	37,000	38,000
NET ARTIFICIAL RECHARGE	25,800	31,100	71,000	223,800	101,100	95,900	95,100
NET NATURAL INFLOW	29,000	29,000	29,000	29,000	33,639	35,709	38,583

NOTES:

1. PROJECTED WATER REQUIREMENTS ARE BASED ON THE PROJECTIONS SET FORTH IN THE 2010 UPDATE TO THE COACHELLA VALLEY WATER MANAGEMENT PLAN, AND THE 2014 STATUS UPDATE (CVWD & MWH).
2. PROJECTED ARTIFICIAL RECHARGE IS BASED ON PROBABLE DELIVERIES ESTIMATED USING 62% RELIABILITY OF STATE WATER PROJECT WATER BASED ON 2013 STATE WATER PROJECT RELIABILITY REPORT AND 100% LONG-TERM AVERAGE OF MWD TRANSFERS PURSUANT TO THE 2003 EXCHANGE AGREEMENT AND ITS IMPLEMENTATION.
3. WATER SUPPLY IS BASED ON NON-CONSUMPTIVE RETURN, NATURAL INFLOW AND PROBABLE DELIVERIES DESCRIBED ABOVE.

KRIEGER & STEWART
Engineering Consultants
3602 University Avenue • Riverside, CA 92501
www.kriegerandstewart.com • 951 • 684 • 6900

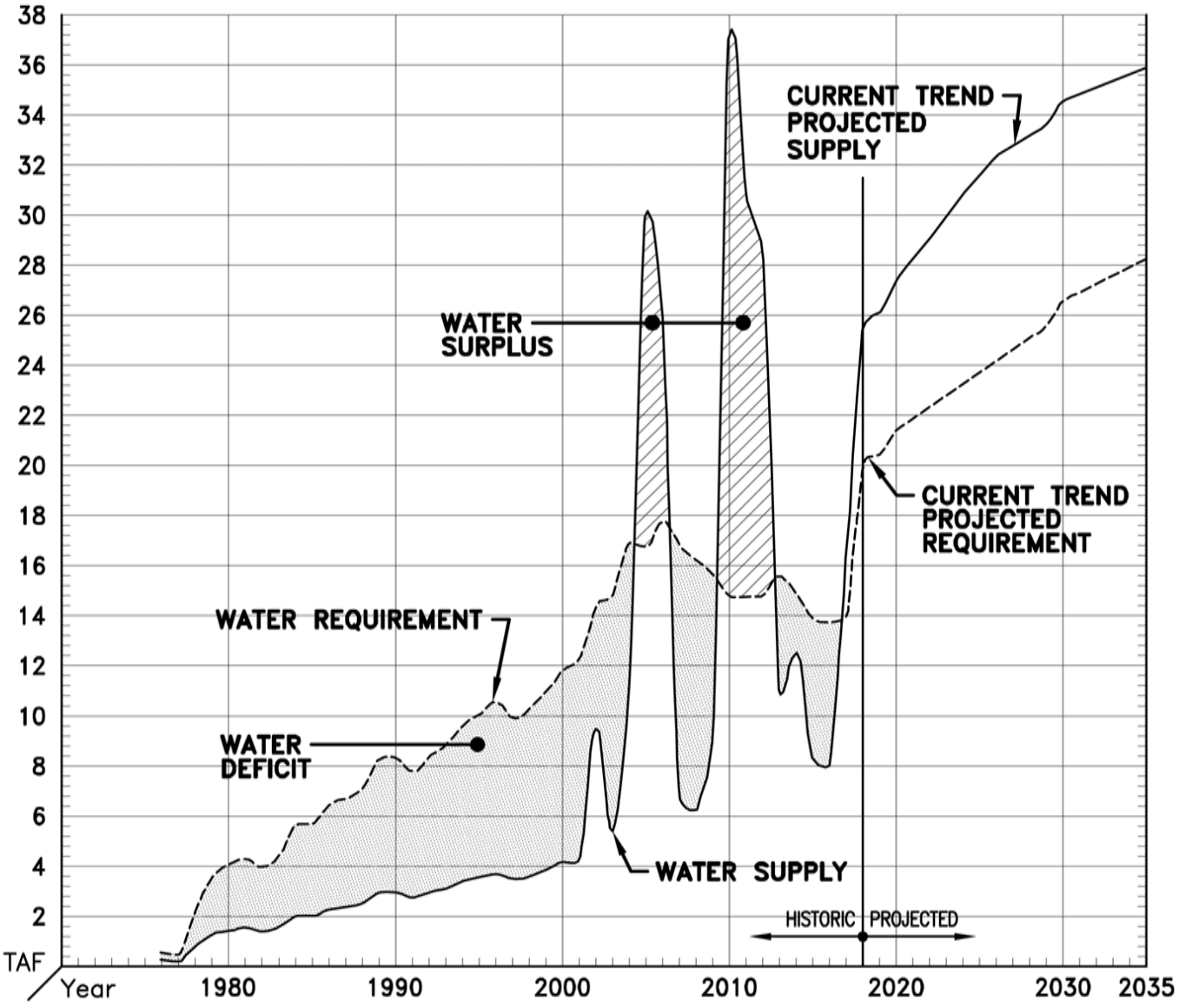
DESERT WATER AGENCY

HISTORIC AND PROJECTED WATER REQUIREMENTS AND WATER SUPPLIES FOR THE WEST WHITEWATER RIVER SUBBASIN MANAGEMENT AREA

FIGURE 3

SCALE: N/A DATE: 04/04/18 DRAWN BY: MRN CHECKED BY: DFS W.O.: 101-33.42

101-33p42f3.dwg



YEARS	1980	1990	2000	2010	2020	2030	2035
NET INFLOW (ACRE FEET)	1,400	2,900	4,100	37,700	27,400	34,500	35,900
NONCONSUMPTIVE RETURN	1,400	2,900	4,100	5,200	6,600	8,200	8,800
NET ARTIFICIAL RECHARGE	0	0	0	32,500	16,800	22,000	22,800
NET NATURAL INFLOW	–	–	–	–	4,000	4,300	4,300

NOTES:

1. PROJECTED WATER REQUIREMENTS ARE BASED ON PROJECTIONS PER THE 2013 MISSION CREEK/GARNET HILL SUBBASIN WATER MANAGEMENT PLAN BY MWH.
2. PROJECTED ARTIFICIAL RECHARGE IS BASED ON PROBABLE DELIVERIES ESTIMATED USING 62% RELIABILITY OF STATE WATER PROJECT WATER BASED ON 2013 STATE WATER PROJECT RELIABILITY REPORT AND 100% LONG–TERM AVERAGE OF MWD TRANSFERS PURSUANT TO THE 2003 EXCHANGE AGREEMENT AND ITS IMPLEMENTATION.
3. WATER SUPPLY IS BASED ON NON–CONSUMPTIVE RETURN, NATURAL INFLOW AND PROBABLE DELIVERIES DESCRIBED ABOVE.

KRIEGER & STEWART
Engineering Consultants
3602 University Avenue • Riverside, CA 92501
www.kriegerandstewart.com • 951 • 684 • 6900

DESERT WATER AGENCY

HISTORIC AND PROJECTED WATER REQUIREMENTS AND WATER SUPPLIES FOR THE MISSION CREEK SUBBASIN MANAGEMENT AREA

FIGURE 4

SCALE: N/A DATE: 04/04/18 DRAWN BY: MRN CHECKED BY: DFS W.O.: 101–33.42

101–33p42f4.dwg

TABLES

TABLE 1
DESERT WATER AGENCY
HISTORIC REPORTED WATER PRODUCTION FOR REPLENISHMENT ASSESSMENT FOR
DESERT WATER AGENCY AND COACHELLA VALLEY WATER DISTRICT
WEST WHITEWATER RIVER SUBBASIN (WWR) AND MISSION CREEK SUBBASIN (MC) , AND GARNET HILL SUBBASIN (GH) MANAGEMENT AREAS

	CVWD PRODUCTION		DWA PRODUCTION						COMBINED CVWD & DWA PRODUCTION						WWR PRODUCTION PERCENTAGES		COMBINED WWR, MC, GH PRODUCTION PERCENTAGES		MC PRODUCTION PERCENTAGES	
	GWE		GWE			SWD	TOTAL	TOTAL	WWR			MC	GH							
	WWR	MC	WWR	MC	GH	WWR	WWR	COMB	GWE	SWD	TOTAL	TOTAL	TOTAL	COMB						
YEAR	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	CVWD	DWA	CVWD	DWA	CVWD	DWA
1978	61,172		28,100			8,530	36,630	36,630	89,272	8,530	97,802			97,802	62.55%	37.45%				
1979	72,733		29,393			7,801	37,194	37,194	102,126	7,801	109,927			109,927	66.16%	33.84%				
1980	84,142		32,092			7,303	39,395	39,395	116,234	7,303	123,537			123,537	68.11%	31.89%				
1981	86,973		33,660			7,822	41,482	41,482	120,633	7,822	128,455			128,455	67.71%	32.29%				
1982	83,050		33,382			6,512	39,894	39,894	116,432	6,512	122,944			122,944	67.55%	32.45%				
1983	84,770		33,279			6,467	39,746	39,746	118,049	6,467	124,516			124,516	68.08%	31.92%				
1984	104,477		38,121			7,603	45,724	45,724	142,598	7,603	150,201			150,201	69.56%	30.44%				
1985	111,635		39,732			7,143	46,875	46,875	151,367	7,143	158,510			158,510	70.43%	29.57%				
1986	115,185		40,965			6,704	47,669	47,669	156,150	6,704	162,854			162,854	70.73%	29.27%				
1987	125,229		44,800			5,644	50,444	50,444	170,029	5,644	175,673			175,673	71.29%	28.71%				
1988	125,122		47,593			5,246	52,839	52,839	172,715	5,246	177,961			177,961	70.31%	29.69%				
1989	129,957		47,125			5,936	53,061	53,061	177,082	5,936	183,018			183,018	71.01%	28.99%				
1990	136,869		45,396			5,213	50,609	50,609	182,265	5,213	187,478			187,478	73.01%	26.99%				
1991	126,360		42,729			4,917	47,646	47,646	169,089	4,917	174,006			174,006	72.62%	27.38%				
1992	128,390		42,493			4,712	47,205	47,205	170,883	4,712	175,595			175,595	73.12%	26.88%				
1993	131,314		41,188			6,363	47,551	47,551	172,502	6,363	178,865			178,865	73.42%	26.58%				
1994	134,223		42,115			5,831	47,946	47,946	176,338	5,831	182,169			182,169	73.68%	26.32%				
1995	134,580		41,728			5,809	47,537	47,537	176,308	5,809	182,117			182,117	73.90%	26.10%				
1996	137,410		45,342			5,865	51,207	51,207	182,752	5,865	188,617			188,617	72.85%	27.15%				
1997	137,406		43,658			5,626	49,284	49,284	181,064	5,626	186,690			186,690	73.60%	26.40%				
1998	142,620		41,385			7,545	48,930	48,930	184,005	7,545	191,550			191,550	74.46%	25.54%				
1999	157,148		44,350			6,941	51,291	51,291	201,498	6,941	208,439			208,439	75.39%	24.61%				
2000	161,834		44,458			6,297	50,755	50,755	206,292	6,297	212,589			212,589	76.13%	23.87%				
2001	159,767		44,112			4,928	49,040	49,040	203,879	4,928	208,807			208,807	76.51%	23.49%				
2002	163,185	4,371	46,004	9,597		4,221	50,225	59,822	209,189	4,221	213,410	13,968		227,378	76.47%	23.53%	73.69%	26.31%	31.29%	68.71%
2003	156,185	4,425	43,463	10,073		4,627	48,090	58,163	199,648	4,627	204,275	14,498		218,773	76.46%	23.54%	73.41%	26.59%	30.52%	69.48%
2004	159,849	4,628	48,093	11,920		4,758	52,851	64,771	207,942	4,758	212,700	16,548		229,248	75.15%	24.85%	71.75%	28.25%	27.97%	72.03%
2005	153,462	4,247	46,080	12,080		4,799	50,879	62,959	199,542	4,799	204,341	16,327		220,668	75.10%	24.90%	71.47%	28.53%	26.01%	73.99%
2006	160,239	4,757	48,967	12,608		4,644	53,611	66,219	209,206	4,644	213,850	17,365		231,215	74.93%	25.07%	71.36%	28.64%	27.39%	72.61%
2007	157,487	4,547	50,037	11,862	516	3,490	53,527	65,905	207,524	3,490	211,014	16,409	516	227,423	74.63%	25.37%	71.25%	28.98%	27.71%	72.29%
2008	161,695	4,543	45,405	11,232	330	3,593	48,998	60,560	207,100	3,593	210,693	15,775	330	226,468	76.74%	23.26%	73.40%	26.74%	28.80%	71.20%
2009	155,793	4,813	41,913	10,295	357	1,443	43,356	54,008	197,706	1,443	199,149	15,108	357	214,257	78.23%	21.77%	74.96%	25.21%	31.86%	68.14%
2010	141,481	4,484	39,352	9,820	288	1,582	40,934	51,042	180,833	1,582	182,415	14,304	288	196,719	77.56%	22.44%	74.20%	25.95%	31.35%	68.65%
2011	141,028	4,653	40,071	9,607	497	1,724	41,795	51,899	181,099	1,724	182,823	14,260	497	197,083	77.14%	22.86%	73.92%	26.33%	32.63%	67.37%
2012	141,379	4,582	39,507	9,634	177	2,222	41,729	51,540	180,886	2,222	183,108	14,216	177	197,324	77.21%	22.79%	73.97%	26.12%	32.23%	67.77%
2013	143,108	4,415	37,730	10,341	202	1,802	39,532	50,075	180,838	1,802	182,640	14,756	202	197,396	78.36%	21.64%	74.73%	25.37%	29.92%	67.34%
2014	136,027	4,154	36,372	9,937	239	1,787	38,159	48,335	172,399	1,787	174,186	14,091	239	188,516	78.09%	21.91%	74.36%	25.64%	29.48%	70.52%
2015	115,558	4,090	30,332	8,927	334	1,539	31,871	41,132	145,890	1,539	147,429	13,017	334	160,780	78.38%	21.62%	74.42%	25.58%	31.42%	68.58%
2016	115,659	4,175	30,408	9,044	297	2,031	32,439	41,780	146,067	2,031	148,098	13,219	297	161,614	78.10%	21.90%	74.15%	25.85%	31.58%	68.42%
2017	120,383	4,281	32,693	9,250	471	1,996	34,689	44,410	153,076	1,996	155,072	13,531	471	169,074	77.63%	22.37%	73.73%	26.27%	31.64%	68.36%

NOTES:

Cumulative CVWD and DWA West Whitewater River Subbasin Management Area production 2013 through 2017: 807,425 AF
Cumulative CVWD and DWA Mission Creek Subbasin Management Area production 2013 through 2017: 68,614 AF
Average annual CVWD and DWA West Whitewater River Subbasin Management Area production 2013 through 2017 (rounded): 161,490 AF
Average annual CVWD and DWA Mission Creek Subbasin Management Area production 2013 through 2017 (rounded): 13,720 AF
Average annual DWA West Whitewater River Subbasin Area of Benefit production 2013 through 2017 (rounded): 35,340 AF
Average annual DWA Mission Creek Subbasin Area of Benefit production 2013 through 2017(rounded): 9,500 AF
Average DWA West Whitewater River Subbasin Area of Benefit production percentage 2013 through 2017: 21.89%
Average DWA Mission Creek Subbasin Area of Benefit production percentage 2013 through 2017: 68.64%

ABBREVIATIONS:

GWE = Groundwater Extractions
SWD = Surface Water Diversions
COMB = Combined

TABLE 2
DESERT WATER AGENCY
GROUNDWATER REPLENISHMENT AND ASSESSMENT PROGRAM
ESTIMATED WEST WHITEWATER RIVER SUBBASIN, MISSION CREEK SUBBASIN, AND GARNET HILL SUBBASIN AREAS OF BENEFIT
WATER PRODUCTION AND ESTIMATED WATER REPLENISHMENT ASSESSMENTS
2018/2019

ESTIMATED COMBINED AREA OF BENEFIT
ASSESSABLE WATER PRODUCTION AND WATER REPLENISHMENT ASSESSMENTS

Area of Benefit	Estimated Assessable Water Production AF	Water Replenishment Assessment Rate $/AF	Water Replenishment Assessment $	Percent
West Whitewater River Subbasin AOB	34,550	$140.00	$4,837,000	78%
Mission Creek Subbasin AOB	9,250	$140.00	$1,295,000	21%
Garnet Hill Subbasin AOB	470	$140.00	$65,800	1%
Combined AOBs	44,270		$6,197,800	100%

ESTIMATED WEST WHITEWATER RIVER SUBBASIN, MISSION CREEK SUBBASIN, AND GARNET HILL SUBBASIN AREAS OF BENEFIT
WATER PRODUCTION AND WATER REPLENISHMENT ASSESSMENTS

Producer	2017 Water Production (1) Groundwater Extraction AF	Surface Water Diversion AF	Combined Water Production AF	Estimated 2018/2019 Assessable Water Production AF[3]	Estimated Water Replenishment Assessment @ $140/AF $	Percent
West Whitewater River Subbasin AOB						
Desert Water Agency (Chino, Falls, Snow Creeks)	31,330.14	1,396	32,726	32,460	$4,544,400	93.95%
Desert Water Agency (Whitewater)	0.00	601	601	600	$84,000	1.74%
Caltrans Rest Stop	39.22	0	39	40	$5,600	0.12%
Canyon Country Club	0.00	0	0	0	$0	0.00%
Palm Springs Country Club	0.00	0	0	0	$0	0.00%
Desert Oasis Golf Management - Welk Resort	344.07	0	344	340	$47,600	0.98%
Los Compadres	40.24	0	40	40	$5,600	0.12%
Mission Springs Water District (Wells 25 & 25A and 26 &26A)	155.72	0	156	150	$21,000	0.43%
Seven Lakes Country Club	174.59	0	175	170	$23,800	0.49%
Bel Air Greens	0.00 [2]	0	0	150 [2]	$21,000	0.43%
Escena	609.24	0	609	600	$84,000	1.74%
Palm Springs Village	0.00	0	0	0	$0	0.00%
Palm Springs West	0.00	0	0	0	$0	0.00%
Subtotal	32,693.22	1,996	34,689	34,550	$4,837,000	100.00%
Mission Creek Subbasin AOB						
Mission Springs Water District	7,207	0	7,207	7,210	$1,009,400	77.95%
Hidden Springs Country Club	402	0	402	400	$56,000	4.32%
Mission Lakes Country Club	1,006	0	1,006	1,010	$141,400	10.92%
Sands RV Resort	364	0	364	360	$50,400	3.89%
CPV-Sentinel	271	0	271	270	$37,800	2.92%
Subtotal	9,250.19	-	9,250	9,250	$1,295,000	100.00%
Garnet Hill Subbasin AOB						
Mission Springs Water District	449	0	449	450	$63,000	95.74%
Indigo Power Plant	22	0	22	20	$2,800	4.26%
Subtotal	470	0	471	470	$65,800	100.00%
Total	42,414	1,996	44,410	44,270	$6,197,800	

[1] 2017 Metered water production, except for Exempt Production and Estimated Production.
[2] Bel Air Greens is closed, but is currently in the planning process for conversion to a hotel and residential development. In 2018, approximately 150 AF of water from the well is anticipated to be used for construction and landscape irrigation.
[3] WWR Proportioned to 2013 Production minus 13% conservation; MC and GH based on 2017 Production, all rounded to nearest 10 AF.

TABLE 3
COACHELLA VALLEY WATER DISTRICT
APPLICABLE STATE WATER PROJECT CHARGES[1]

	Table A Water Allocation		Probable Table A Water Delivery[3]	Delta Water Charge		Variable Transportation Charge		Off-Aqueduct Power Charge		CVWD Applicable Table A Charges	
Year	Maximum AF	Probable[2] AF	AF	Amount[4] $	Unit $/AF	Amount[5] $	Unit $/AF	Amount[6] $	Unit $/AF	Amount $	Unit[7] $/AF
2017	138,350	88,124	88,124	6,069,981	68.88	11,047,030	125.36	137,794	1.56	17,254,805	195.80
2018	138,350	138,350	85,777	9,611,175	69.47	14,095,734	164.33	131,239	1.53	23,838,148	277.91
2019	138,350	138,350	85,777	9,279,115	67.07	13,417,238	156.42	415,161	4.84	23,111,514	269.44
2020	138,350	138,350	85,777	8,975,854	64.88	15,265,733	177.97	11,151	0.13	24,252,738	282.74
2021	138,350	138,350	85,777	9,389,537	67.87	14,812,830	172.69	11,151	0.13	24,213,518	282.28
2022	138,350	138,350	85,777	8,933,879	64.57	15,800,981	184.21	11,151	0.13	24,746,012	288.49
2023	138,350	138,350	85,777	9,167,261	66.26	15,506,766	180.78	11,151	0.13	24,685,178	287.78
2024	138,350	138,350	85,777	9,200,420	66.50	14,894,318	173.64	11,151	0.13	24,105,889	281.03
2025	138,350	138,350	85,777	9,207,859	66.55	15,460,446	180.24	11,151	0.13	24,679,457	287.72
2026	138,350	138,350	85,777	9,209,135	66.56	14,734,773	171.78	11,151	0.13	23,955,059	279.27
2027	138,350	138,350	85,777	9,628,302	69.59	15,340,359	178.84	11,151	0.13	24,979,811	291.22
2028	138,350	138,350	85,777	9,664,328	69.85	14,925,198	174.00	11,151	0.13	24,600,677	286.80
2029	138,350	138,350	85,777	9,702,372	70.13	15,260,586	177.91	11,151	0.13	24,974,109	291.15
2030	138,350	138,350	85,777	9,588,608	69.31	14,827,412	172.86	11,151	0.13	24,427,172	284.78
2031	138,350	138,350	85,777	9,743,996	70.43	16,461,464	191.91	11,151	0.13	26,216,611	305.64
2032	138,350	138,350	85,777	9,941,825	71.86	14,137,765	164.82	11,151	0.13	24,090,741	280.85
2033	138,350	138,350	85,777	10,086,241	72.90	16,358,532	190.71	11,151	0.13	26,455,924	308.43
2034	138,350	138,350	85,777	10,338,546	74.73	14,373,652	167.57	11,151	0.13	24,723,349	288.23
2035	138,350	138,350	85,777	10,405,738	75.21	18,229,328	212.52	11,151	0.13	28,646,217	333.96

(1) As set forth in CDWR Bulletin 132-17, Appendix B (Appendix B).

(2) Probable Table A water allocation is based on currently existing CVWD allocation augmented by TLBWSD, KCWA, and MWD transfers,

(3) Probable Table A water delivery is based on 0.62 reliability of CVWD allocation augmented by TLBWSD, KCWA, and MWD transfers

(4) Amount is based on probable Table A water allocation and Delta Water Charge per Table B-20 (A & B) of Appendix B. From 2018 through 2035, amount is based on State Water Contractors estimates.

(5) Amount is based on probable Table A water delivery and applicable Variable Transportation Unit Charge per Table B-17 of Appendix B.

(6) Amount is based on probable Table A water delivery and Off-Aqueduct Power Unit Charge derived by dividing data in Table B-16B by data in Table B-5B of Appendix B.

(7) Amount of applicable Table A charges divided by probable Table A water delivery.

TABLE 4
DESERT WATER AGENCY
APPLICABLE STATE WATER PROJECT CHARGES[1]

	Table A Water Allocation		Probable Table A Water Delivery[3]	Delta Water Charge		Variable Transportation Charge		Off-Aqueduct Power Charge		DWA Applicable Table A Charges	
Year	Maximum AF	Probable[2] AF	AF	Amount[4] $	Unit $/AF	Amount[5] $	Unit $/AF	Amount[6] $	Unit $/AF	Amount $	Unit[7] $/AF
2017	55,750	31,681	31,681	2,182,187	68.88	3,971,460	125.36	118,209	3.73	6,271,856	197.97
2018	55,750	55,750	34,565	3,872,953	69.47	5,680,066	164.33	109,917	3.18	9,662,936	279.56
2019	55,750	55,750	34,565	3,739,145	67.07	5,406,657	156.42	167,295	4.84	9,313,096	269.44
2020	55,750	55,750	34,565	3,616,942	64.88	6,151,533	177.97	4,493	0.13	9,772,968	282.74
2021	55,750	55,750	34,565	3,783,641	67.87	5,969,030	172.69	4,493	0.13	9,757,164	282.28
2022	55,750	55,750	34,565	3,600,027	64.57	6,367,219	184.21	4,493	0.13	9,971,739	288.49
2023	55,750	55,750	34,565	3,694,072	66.26	6,248,661	180.78	4,493	0.13	9,947,226	287.78
2024	55,750	55,750	34,565	3,707,433	66.50	6,001,867	173.64	4,493	0.13	9,713,793	281.03
2025	55,750	55,750	34,565	3,710,431	66.55	6,229,996	180.24	4,493	0.13	9,944,920	287.72
2026	55,750	55,750	34,565	3,710,945	66.56	5,937,576	171.78	4,493	0.13	9,653,015	279.27
2027	55,750	55,750	34,565	3,879,854	69.59	6,181,605	178.84	4,493	0.13	10,065,952	291.22
2028	55,750	55,750	34,565	3,894,371	69.85	6,014,310	174.00	4,493	0.13	9,913,175	286.80
2029	55,750	55,750	34,565	3,909,702	70.13	6,149,459	177.91	4,493	0.13	10,063,654	291.15
2030	55,750	55,750	34,565	3,863,859	69.31	5,974,906	172.86	4,493	0.13	9,843,259	284.78
2031	55,750	55,750	34,565	3,926,475	70.43	6,633,369	191.91	4,493	0.13	10,564,337	305.64
2032	55,750	55,750	34,565	4,006,193	71.86	5,697,003	164.82	4,493	0.13	9,707,689	280.85
2033	55,750	55,750	34,565	4,064,387	72.90	6,591,891	190.71	4,493	0.13	10,660,772	308.43
2034	55,750	55,750	34,565	4,166,057	74.73	5,792,057	167.57	4,493	0.13	9,962,607	288.23
2035	55,750	55,750	34,565	4,193,132	75.21	7,345,754	212.52	4,493	0.13	11,543,380	333.96

(1) As set forth in CDWR Bulletin 132-17, Appendix B (Appendix B).

(2) Probable Table A water allocation is based on currently existing DWA allocation augmented by TLBWSD, KCWA, and MWD transfers

(3) Probable Table A water delivery is based on 0.62 reliability of DWA allocation augmented by TLBWSD, KCWA, and MWD transfers

(4) Amount is based on probable Table A water allocation and Delta Water Charge per Table B-20 (A & B) of Appendix B. From 2018 through 2035, amount is based on State Water Contractors estimates.

(5) Amount is based on probable Table A water delivery and applicable Variable Transportation Unit Charge per Table B-17 of Appendix B.

(6) Amount is based on probable Table A water delivery and Off-Aqueduct Power Unit Charge derived by dividing data in Table B-16B by data in Table B-5B of Appendix B.

(7) Amount of applicable Table A charges divided by probable Table A water delivery.

TABLE 5
DESERT WATER AGENCY
ESTIMATED ALLOCATED STATE WATER PROJECT CHARGES FOR TABLE A WATER
(PROPORTIONED APPLICABLE CHARGES)[1]

Year	CVWD Applicable Table A Charges[2] $	DWA Applicable Table A Charges[3] $	Combined Applicable Table A Charges $	CVWD Allocated Table A Charges $	DWA Allocated Table A Charges $	DWA Incremental Increase/(Decrease) $	DWA Incremental Increase/(Decrease) %
2016	16,266,406	5,310,606	21,577,012	15,908,731	5,668,281		
						512,173	9
2017	17,254,805	6,271,856	23,526,661	17,346,207	6,180,454		
						2,620,281	42
2018	23,838,148	9,662,936	33,501,083	24,700,349	8,800,735		
						(282,790)	(3)
2019	23,111,514	9,313,096	32,424,610	23,906,665	8,517,945		
						420,608	5
2020	24,252,738	9,772,968	34,025,706	25,087,153	8,938,553		
						(14,455)	0
2021	24,213,518	9,757,164	33,970,683	25,046,584	8,924,098		
						196,255	2
2022	24,746,012	9,971,739	34,717,751	25,597,398	9,120,353		
						(22,420)	0
2023	24,685,178	9,947,226	34,632,404	25,534,471	9,097,933		
						(213,502)	(2)
2024	24,105,889	9,713,793	33,819,683	24,935,252	8,884,431		
						211,393	2
2025	24,679,457	9,944,920	34,624,377	25,528,553	9,095,824		
						(266,983)	(3)
2026	23,955,059	9,653,015	33,608,074	24,779,233	8,828,841		
						377,681	4
2027	24,979,811	10,065,952	35,045,764	25,839,242	9,206,522		
						(139,733)	(2)
2028	24,600,677	9,913,175	34,513,852	25,447,063	9,066,789		
						137,631	2
2029	24,974,109	10,063,654	35,037,763	25,833,343	9,204,420		
						(201,578)	(2)
2030	24,427,172	9,843,259	34,270,430	25,267,588	9,002,842		
						659,513	7
2031	26,216,611	10,564,337	36,780,948	27,118,593	9,662,355		
						(783,507)	(8)
2032	24,090,741	9,707,689	33,798,430	24,919,583	8,878,848		
						871,708	10
2033	26,455,924	10,660,772	37,116,695	27,366,139	9,750,556		
						(638,555)	(7)
2034	24,723,349	9,962,607	34,685,956	25,573,955	9,112,001		
						1,445,806	16
2035	28,646,217	11,543,380	40,189,596	29,631,789	10,557,807		

(1) Proportioned in accordance with 2017 Water Management Area production percentages; CVWD is responsible for 73.73% and DWA is responsible for 26.27% of total combined production for the Whitewater River, Mission Creek, and Garnet Hill Subbasins (see **Table 1**).
(2) From Table 3.
(3) From Table 4.

TABLE 6
DESERT WATER AGENCY
PROJECTED EFFECTIVE REPLENISHMENT ASSESSMENT RATES
PURSUANT TO WATER MANAGEMENT AGREEMENTS BETWEEN
COACHELLA VALLEY WATER DISTRICT AND DESERT WATER AGENCY

Year		DWA Allocated Table A Charges [1] $	Estimated Assessable Production[2] AF	Estimated Effective Table A Assessment Rate[3] Fiscal Year $/AF	Table A Assessment Rate $/AF
2018/2019	[4]	8,659,340	44,270	195.60	196.00
2019/2020	[4]	8,728,249	45,973	189.86	190.00
2020/2021	[4]	8,931,326	45,900	194.58	195.00
2021/2022	[4]	9,022,226	45,595	197.88	198.00
2022/2023	[4]	9,109,143	45,291	201.12	201.00
2023/2024	[4]	8,991,182	44,986	199.87	200.00
2024/2025	[4]	8,990,128	44,812	200.62	201.00
2025/2026	[4]	9,151,173	44,774	204.39	204.00
2026/2027	[4]	9,017,682	44,999	200.40	200.00
2027/2028	[4]	9,136,656	45,482	200.89	201.00
2028/2029	[4]	9,135,605	45,965	198.75	199.00
2029/2030	[4]	9,103,631	46,661	195.10	195.00
2030/2031	[4]	9,332,599	47,305	197.29	197.00
2031/2032	[4]	9,270,602	47,684	194.42	194.00
2032/2033	[4]	9,314,702	48,062	193.81	194.00
2033/2034	[4]	9,431,279	48,438	194.71	195.00
2034/2035	[4]	9,834,904	48,814	201.48	201.00

(1) From Table 5.
(2) Projections based on model runs for Coachella Valley 2010 Water Management Plan and 2014 Water Management Plan Status Update.
(3) Necessary to pay DWA's estimated (projected) Allocated Table A Charges.
(4) Projected

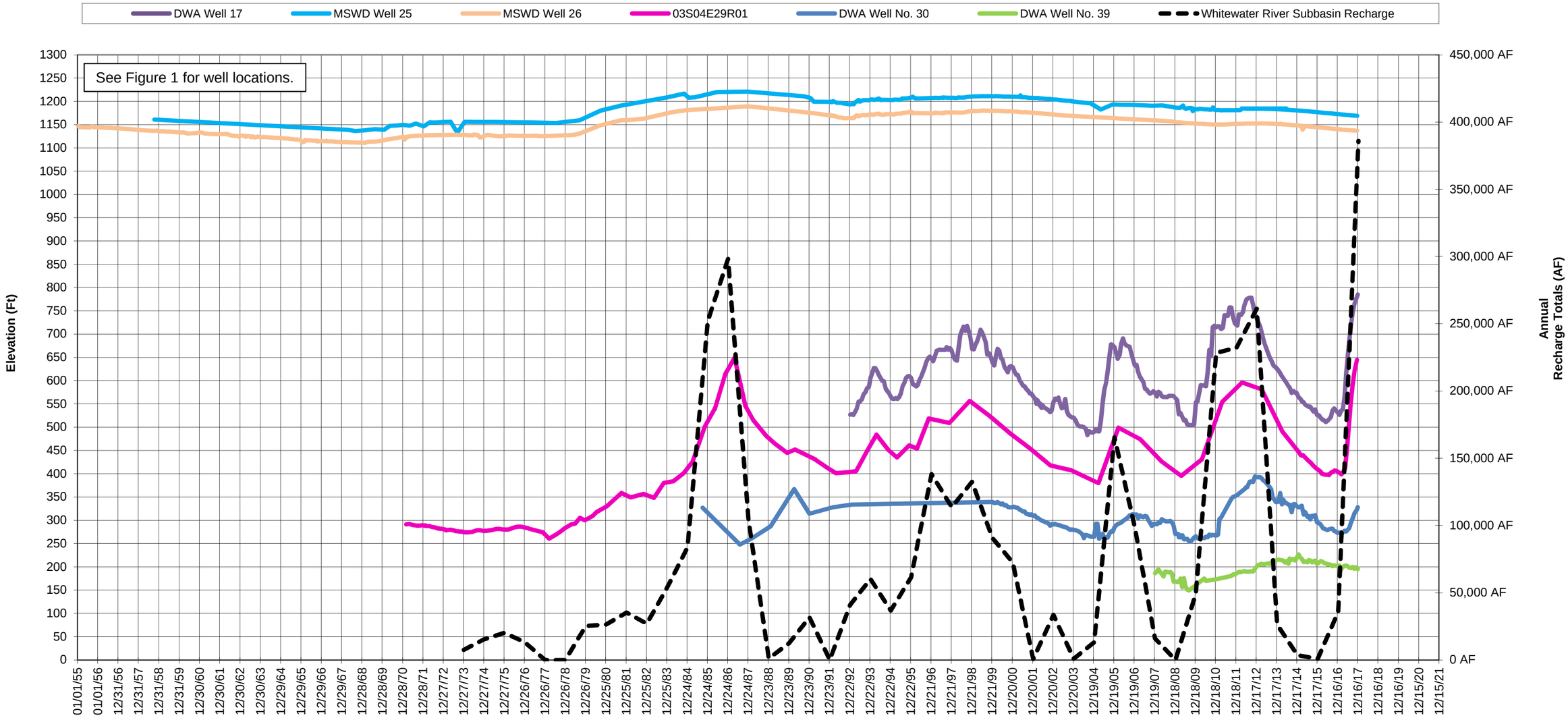
TABLE 7
DESERT WATER AGENCY
WEST WHITEWATER RIVER SUBBASIN, MISSION CREEK SUBBASIN, AND GARNET HILL SUBBASIN AREAS OF BENEFIT
HISTORIC AND PROPOSED REPLENISHMENT ASSESSMENT RATES

	Assessment Rate							Assessments										Payments Made	Surplus (Deficit)	
		WWR		MC		GH		Estimated[4] $			Levied[5] $			Collected[6] $				Delinquent[7] $					
Fiscal Year	Table A Allocation [1] $/AF	Other Charges or Costs[2] $/AF	Total[3] $/AF	Other Charges or Costs[2] $/AF	Total[3] $/AF	Other Charges or Costs[2] $/AF	Total[3] $/AF	WWR	MC	GH	WWR	MC	GH	WWR	MC	GH	TOTAL	WWR	MC	GH	Table A $	Annual $	Cumulative[8] $
78/79	6.81	0.00	6.81					226,245			199,004			199,004			199,004	0			267,193	(68,189)	(68,189)
79/80	9.00	0.00	9.00					282,405			309,225			309,225			309,225	0			267,125	42,100	(26,089)
80/81	9.50	0.00	9.50					317,482			355,925			355,925			355,925	0			347,491	8,434	(17,655)
81/82	10.50	0.00	10.50					378,838			406,160			406,160			406,160	0			414,086	(7,926)	(25,581)
82/83	21.00	0.00	21.00					800,499			770,871			770,871			770,871	0			891,544	(120,673)	(146,254)
83/84	36.50	0.00	36.50					1,331,374			1,452,317			1,452,317			1,452,317	0			492,329	959,988	813,734
84/85	37.50	0.00	37.50					1,375,762			1,577,125			1,577,125			1,577,125	0			381,713	1,195,412	2,009,146
85/86	31.00	0.00	31.00					1,309,750			1,363,239			1,363,239			1,363,239	0			637,841	725,398	2,734,544
86/87	21.00	0.00	21.00					911,673			912,583			912,583			912,583	0			876,544	36,039	2,770,583
87/88	22.50	0.00	22.50					994,749			1,099,130			1,099,130			1,099,130	0			934,920	164,210	2,934,793
88/89	20.00	0.00	20.00					970,000			965,811			965,811			965,811	0			748,195	217,616	3,152,409
89/90	23.50	0.00	23.50					1,175,002			1,105,446			1,105,446			1,105,446	0			888,979	216,467	3,368,876
90/91	26.00	0.00	26.00					1,313,000			1,207,593			1,207,593			1,207,593	0			784,369	423,224	3,792,100
91/92	31.75	0.00	31.75					1,524,000			1,408,108			1,408,108			1,408,108	0			439,549	968,559	4,760,659
92/93	31.75	0.00	31.75					1,412,875			1,389,641			1,389,641			1,389,641	0			902,273	487,368	5,248,027
93/94	31.75	0.00	31.75					1,397,000			1,411,406			1,411,406			1,411,406	0			1,508,408	(97,002)	5,151,025
94/95	31.75	0.00	31.75					1,412,875			1,384,996			1,384,996			1,384,996	0			2,291,661	(906,665)	4,244,360
95/96	31.75	0.00	31.75					1,425,575			1,434,798			1,434,798			1,434,798	0			2,282,379	(847,581)	3,396,779
96/97	31.75	0.00	31.75					1,409,700			1,517,690			1,517,690			1,517,690	0			1,153,620	364,070	3,760,849
97/98	31.75	0.00	31.75					1,527,175			1,368,789			1,368,789			1,368,789	0			1,560,592	(191,803)	3,569,046
98/99	31.75	0.00	31.75					1,463,675			1,510,078			1,510,078			1,510,078	0			2,663,096	(1,153,018)	2,416,028
99/00	31.75	0.00	31.75					1,436,370			1,530,344			1,530,344			1,530,344	0			2,137,145	(606,801)	1,809,227
00/01	33.00	0.00	33.00					1,576,080			1,506,011			1,506,011			1,506,011	0			1,993,058	(487,047)	1,322,180
01/02	33.00	0.00	33.00					1,563,870			1,559,325			1,559,325			1,559,325	0			273,679	1,285,646	2,607,826
02/03	35.00	0.00	35.00					1,627,500			1,636,783			1,636,783			1,636,783	0			1,226,335	410,448	3,018,274
03/04	35.00	0.00	35.00	0.00	35.00			1,679,300	336,000		1,719,646	397,708		1,719,646	397,708		2,117,354	0	0		4,199,358	(2,082,004)	936,270
04/05	34.00	11.00	45.00	12.00	46.00			2,069,100	464,140		2,160,536	529,108		2,160,536	529,108		2,689,644	0	0		3,813,947	(1,124,303)	(188,033)
05/06	38.00	12.00	50.00	12.00	50.00			2,527,500	596,000		2,463,500	635,562		2,463,500	635,562		3,099,062	0	0		5,791,887	(2,692,825)	(2,880,858)
06/07	51.00	12.00	63.00	12.00	63.00			3,058,020	761,040		3,350,191	789,471		3,343,330	789,471		4,132,801	6,861	0		6,087,627	(1,954,826)	(4,835,684)
07/08	83.00	(34.00)	63.00	(34.00)	49.00			3,230,010	794,430		3,049,824	720,025		3,043,745	720,025		3,763,770	6,079	0		9,131,044	(5,367,274)	(10,202,958)
08/09	65.00	(6.00)	72.00	(6.00)	59.00			3,682,800	876,240		3,074,133	778,029		3,040,146	778,029		3,818,175	33,987	0		6,936,896	(3,118,721)	(13,321,679)
09/10	72.00	0.00	72.00	0.00	72.00			3,605,140	802,800		3,007,319	718,452		2,932,949	718,452		3,651,401	74,370	0		6,236,894	(2,585,493)	(15,907,172)
10/11	99.00	(17.00)	82.00	(17.00)	82.00			3,527,640	828,200		3,376,216	616,632		3,297,080	616,632		3,913,712	79,136	0		4,174,012	(260,300)	(16,167,472)
11/12	115.00	(33.00)	82.00	(33.00)	82.00			3,302,140	805,240		3,347,596	820,179		3,275,308	820,179		4,095,487	72,288	0		7,005,049	(2,909,562)	(19,077,034)
12/13	117.00	(25.00)	92.00	(25.00)	92.00			3,788,326	878,600		3,690,594	888,405		3,689,937	888,405		4,578,342	656	0		8,169,744	(3,591,402)	(22,668,436)
13/14	111.00	(19.00)	92.00	(19.00)	92.00			3,779,360	785,587		3,809,930	785,587		3,809,930	785,587		4,595,517	0	0		6,078,542	(1,483,025)	(24,151,461)
14/15	106.00	(4.00)	102.00	(4.00)	102.00			3,684,919	756,041		3,684,919	561,213		3,684,919	561,213		4,246,132	0	0		3,798,705	447,427	(23,704,034)
15/16	112.00	(10.00)	102.00	(10.00)	102.00	(10.00)	102.00	3,846,970	989,318	24,480	3,243,582	711,876	0	3,243,582	711,876	0	3,955,458	0	0	0	7,304,465	(3,349,007)	(27,053,041)
16/17	144.00	(42.00)	102.00	(42.00)	102.00	(42.00)	102.00	3,443,112	892,273	31,235	3,443,112	892,273	31,235	3,577,041	748,643	0	4,325,684	0	0	0	3,782,326	543,358	543,358
17/18	158.00	(38.00)	120.00	(38.00)	120.00	(38.00)	120.00	3,410,450 [9]	1,583,978	34,771	3,410,450	1,583,978	34,771	2,407,364 [10]	506,457	34,771	2,948,592	0 [11]	0	0	7,490,595 [12]	(4,542,002)	(3,998,644)
18/19	196.00	(56.00)	140.00	(56.00)	140.00	(56.00)	140.00	4,004,471	2,147,467	45,862	4,004,471	2,147,467	45,862	4,004,471	2,147,467	45,862	6,197,800	0			8,659,340	(2,461,540)	(6,460,184)
19/20	190.00	(35.00)	155.00	(35.00)	155.00	(35.00)	155.00	4,521,661	2,551,420	52,700	4,521,661	2,551,420	52,700	4,521,661	2,551,420	52,700	7,125,781	0			8,728,249	(1,602,468)	(8,062,652)
20/21	195.00	(30.00)	165.00	(30.00)	165.00	(30.00)	165.00	4,709,800	2,807,562	56,100	4,709,800	2,807,562	56,100	4,709,800	2,807,562	56,100	7,573,462	0			8,931,326	(1,357,863)	(9,420,515)
21/22	198.00	(23.00)	175.00	12.63	175.00	12.63	175.00	4,880,123	3,039,568	59,500	4,880,123	3,039,568	59,500	4,880,123	3,039,568	59,500	7,979,191	0			9,022,226	(1,043,035)	(10,463,550)
22/23	201.00	12.63	213.63	12.63	213.63	12.63	213.63	5,816,910	3,786,003	72,635	5,816,910	3,786,003	72,635	5,816,910	3,786,003	72,635	9,675,549	0			9,109,143	566,406	(9,897,144)
23/24	201.00	12.63	213.63	12.63	213.63	12.63	213.63	5,676,336	3,861,434	72,635	5,676,336	3,861,434	72,635	5,676,336	3,861,434	72,635	9,610,405	0			8,991,182	619,223	(9,277,921)
24/25	201.00	12.63	213.63	12.63	213.63	12.63	213.63	5,563,681	3,936,938	72,635	5,563,681	3,936,938	72,635	5,563,681	3,936,938	72,635	9,573,255	0			8,990,128	583,127	(8,694,794)
25/26	204.00	12.63	216.63	12.63	216.63	12.63	216.63	5,555,146	4,070,639	73,655	5,555,146	4,070,639	73,655	5,555,146	4,070,639	73,655	9,699,440	0			9,151,173	548,267	(8,146,526)
26/27	204.00	12.63	216.63	12.63	216.63	12.63	216.63	5,523,627	4,150,906	73,655	5,523,627	4,150,906	73,655	5,523,627	4,150,906	73,655	9,748,187	0			9,017,682	730,506	(7,416,020)
27/28	204.00	12.63	216.63	12.63	216.63	12.63	216.63	5,548,013	4,231,172	73,655	5,548,013	4,231,172	73,655	5,548,013	4,231,172	73,655	9,852,840	0			9,136,656	716,185	(6,699,835)
28/29	204.00	12.63	216.63	12.63	216.63	12.63	216.63	5,572,315	4,311,439	73,655	5,572,315	4,311,439	73,655	5,572,315	4,311,439	73,655	9,957,409	0			9,135,605	821,805	(5,878,031)
29/30	204.00	12.63	216.63	12.63	216.63	12.63	216.63	5,596,259	4,438,355	73,655	5,596,259	4,438,355	73,655	5,596,259	4,438,355	73,655	10,108,269	0			9,103,631	1,004,638	(4,873,393)
30/31	204.00	12.63	216.63	12.63	216.63	12.63	216.63	5,619,843	4,554,386	73,655	5,619,843	4,554,386	73,655	5,619,843	4,554,386	73,655	10,247,884	0			9,332,599	915,285	(3,958,108)
31/32	204.00	12.63	216.63	12.63	216.63	12.63	216.63	5,643,320	4,612,883	73,655	5,643,320	4,612,883	73,655	5,643,320	4,612,883	73,655	10,329,858	0			9,270,602	1,059,257	(2,898,851)
32/33	204.00	12.63	216.63	12.63	216.63	12.63	216.63	5,666,714	4,671,379	73,655	5,666,714	4,671,379	73,655	5,666,714	4,671,379	73,655	10,411,748	0			9,314,702	1,097,046	(1,801,805)
33/34	204.00	12.63	216.63	12.63	216.63	12.63	216.63	5,689,791	4,729,876	73,655	5,689,791	4,729,876	73,655	5,689,791	4,729,876	73,655	10,493,323	0			9,431,279	1,062,044	(739,760)
34/35	204.00	12.63	216.63	12.63	216.63	12.63	216.63	5,712,636	4,788,373	73,655	5,712,636	4,788,373	73,655	5,712,636	4,788,373	73,655	10,574,664	0			9,834,904	739,760	(0)

(1) Effective rate necessary to pay DWA's estimated (projected) Allocated Table A Charges.
(2) Includes discretionary reductions and charges for recovery of past shortfalls.
(3) Recommended assessment rate based on two components: 1) State Water Project Table A water Allocation, and 2) Other Charges or Costs.
(4) Assessments Estimated are based on applicable assessment rate and estimated assessable production from annual report for that year.
(5) Assessments Levied are based on applicable assessment rate and actual assessable production, except for the previous year, current year, and subsequent years where amounts remain estimated.
(6) Assessments Collected are based on payments made for Assessments Levied, except for the previous year, current year, and subsequent years where amounts remain estimated.
(7) Assessments Delinquent are based on Assessments Levied less payments made.
(8) Cumulative assessment balance to be used for future Delta improvements. Estimates of future assessment rates may need to be adjusted in the future to accommodate unknown charges for expanded State Water Project Facilities.
(9) For 2017/2018 and beyond, Assessments Estimated are based on Proposed Assessment Rate and Estimated Assessable Production.
(10) Assessments Collected are estimated based on first, second and third quarters of assessment period.
(11) Delinquent assessment is estimated based on first, second and third quarters of assessment period.
(12) For 2017/2018 and beyond, Payments Made are estimated based on estimated allocated Table A charges.

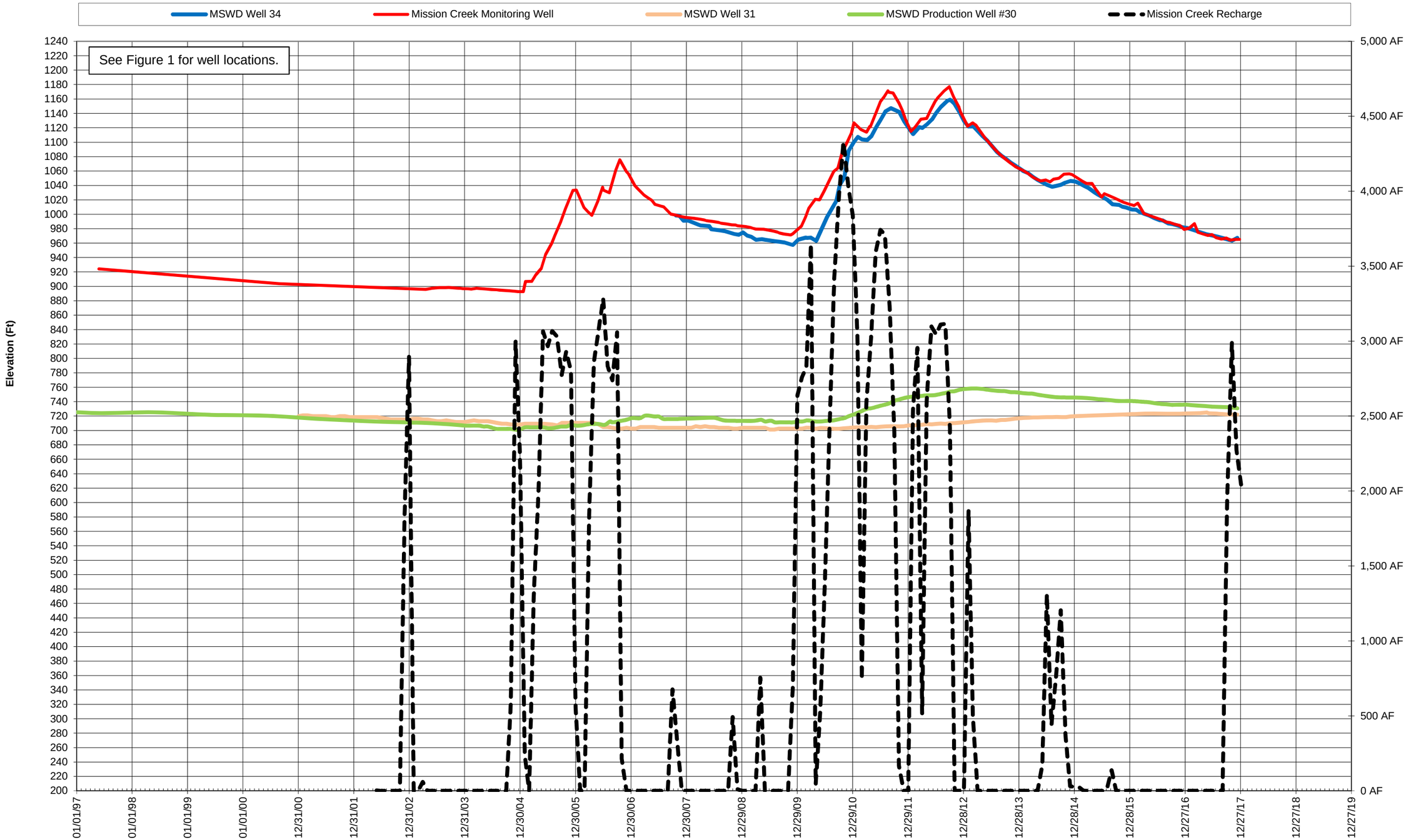
EXHIBITS

EXHIBIT 1
DESERT WATER AGENCY
WEST WHITEWATER RIVER SUBBASIN MANAGEMENT AREA
RECHARGE QUANTITIES AND GROUNDWATER WELL HYDROGRAPHS



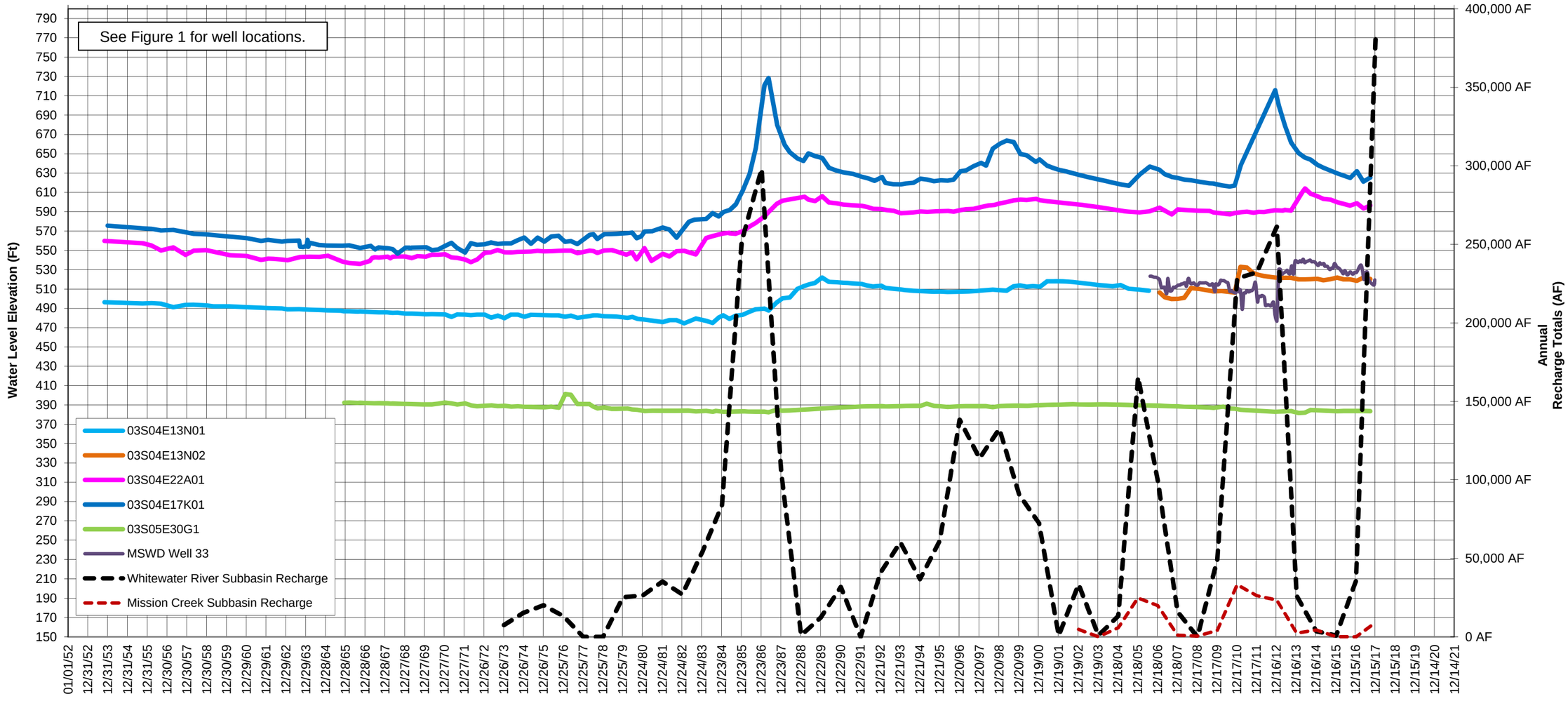
/DFS
101-33P42-HYDROGRAPHS.xlsx/Exhibit1 (5/29/2018)

EXHIBIT 2
DESERT WATER AGENCY
MISSION CREEK SUBBASIN MANAGEMENT AREA
RECHARGE QUANTITIES AND GROUNDWATER WELL HYDROGRAPHS



/DFS
101-33P42-HYDROGRAPHS.xlsx/Exhibit2 (5/29/2018)

EXHIBIT 3
GARNET HILL SUBBASIN MANAGEMENT AREA GROUNDWATER WELL HYDROGRAPHS AND
GROUNDWATER RECHARGE QUANTITIES AT WHITEWATER RIVER AND MISSION CREEK REPLENISHMENT FACILITIES



/DFS
101-33P42-HYDROGRAPHS.xlsx/Exhibit3 (5/29/2018)

EXHIBIT 4
DESERT WATER AGENCY
MISSION CREEK SUBBASIN AREA OF BENEFIT[1]
HISTORIC VOLUME OF GROUNDWATER IN STORAGE[2]

TIME PERIOD	PRE-1955	1955 - 1978	1979 - 1997	1998 - 2017	**1955 - 2017**
Number of Years		24	19	19	**62**
Water Level Decline, FT[3]		20	30	13	**63**
Period Reduction in Storage, AF		71,200	106,800	46,280	**224,280**
Annual Reduction in Storage, AF/Yr		3,000	5,600	2,400	**3,600**
Change in Storage		0.047	0.074	0.035	**0.148**
Remaining Storage, AF	1,511,800	1,440,600	1,333,800	1,287,520	**1,287,520**

(1) Northwest three-quarters of subbasin: GTC (1979) & SLADE (2000)
(2) Storage loss of 3,560 AF/FT of water level decline: GTC (1979) & SLADE (2000)
(3) Mission Springs Water District Data

EXHIBIT 5
DESERT WATER AGENCY
COMPARISON OF WATER PRODUCTION AND GROUNDWATER REPLENISHMENT
WEST WHITEWATER RIVER SUBBASIN (WWR) AND MISSION CREEK SUBBASIN (MC) MANAGEMENT AREAS

PRODUCTION[1]

	WWR AF		MC AF		TOTAL AF		RATIO OF PRODUCTION	
YEAR	ANNUAL	CUMULATIVE	ANNUAL	CUMULATIVE	ANNUAL	CUMULATIVE	WWR/TOTAL	MC /TOTAL
2002	213,410	213,410	13,968	13,968	227,378	227,378	93.9%	6.1%
2003	204,275	417,685	14,498	28,466	218,773	446,151	93.4%	6.6%
2004	212,700	630,385	16,548	45,014	229,248	675,399	92.8%	7.2%
2005	204,341	834,726	16,327	61,341	220,668	896,067	92.6%	7.4%
2006	213,850	1,048,576	17,365	78,706	231,215	1,127,282	92.5%	7.5%
2007	211,014	1,259,590	16,409	95,115	227,423	1,354,705	92.8%	7.2%
2008	210,693	1,470,283	15,775	110,890	226,468	1,581,173	93.0%	7.0%
2009	199,149	1,669,432	15,108	125,998	214,257	1,795,430	92.9%	7.1%
2010	182,415	1,851,847	14,304	140,302	196,719	1,992,149	92.7%	7.3%
2011	182,823	2,034,670	14,260	154,562	197,083	2,189,232	92.8%	7.2%
2012	183,108	2,217,778	14,216	168,778	197,324	2,386,556	92.8%	7.2%
2013	182,640	2,400,418	14,756	183,534	197,396	2,583,952	92.5%	7.5%
2014	174,186	2,574,604	14,091	197,625	188,277	2,772,229	92.5%	7.5%
2015	147,429	2,722,033	13,017	210,642	160,446	2,932,675	91.9%	8.1%
2016	148,098	2,870,131	13,219	223,861	161,317	3,093,992	91.8%	8.2%
2017	155,072	3,025,203	13,531	237,392	168,603	3,262,595	92.0%	8.0%

RECHARGE (TOTAL)

	WWR AF		MC AF		TOTAL AF		RATIO OF RECHARGE	
YEAR	ANNUAL	CUMULATIVE	ANNUAL	CUMULATIVE	ANNUAL	CUMULATIVE	WWR/TOTAL	MC/TOTAL
2002	33,435	33,435	4,733	4,733	38,168	38,168	14.2%	14.2%
2003	902	34,337	59	4,792	961	39,129	14.0%	6.5%
2004	13,224	47,561	5,564	10,356	18,788	57,917	70.4%	29.6%
2005	165,554	213,115	24,723	35,079	190,277	248,194	87.0%	13.0%
2006	98,959	312,074	19,901	54,980	118,860	367,054	83.3%	16.7%
2007	16,009	328,083	1,011	55,991	17,020	384,074	94.1%	5.9%
2008	8,008	336,091	503	56,494	8,511	392,585	94.1%	5.9%
2009	57,024	393,115	4,090	60,584	61,114	453,699	93.3%	6.7%
2010	228,330	621,445	33,210	93,794	261,540	715,239	87.3%	12.7%
2011	232,214	853,659	26,238	120,032	258,452	973,691	89.8%	10.2%
2012	257,267	1,110,926	23,406	143,438	280,673	1,254,364	91.7%	8.3%
2013	26,620	1,137,546	2,379	145,817	28,999	1,283,363	91.8%	8.2%
2014	3,533	1,141,079	4,325	150,142	7,858	1,291,221	45.0%	55.0%
2015	865	1,141,944	171	150,313	1,036	1,292,257	83.5%	16.5%
2016	35,699	1,177,643	0	150,313	35,699	1,327,956	100.0%	0.0%
2017	385,994	1,563,637	9,248	159,561	395,242	1,723,198	97.7%	2.3%

RECHARGE (SWP EXCHANGE ONLY) [2]

	WWR AF		MC AF		TOTAL AF		RATIO OF RECHARGE	
YEAR	ANNUAL	CUMULATIVE	ANNUAL	CUMULATIVE	ANNUAL	CUMULATIVE	WWR/TOTAL	MC/TOTAL
2002	33,435	33,435	4,733	4,733	38,168	38,168	14.2%	14.2%
2003	902	34,337	59	4,792	961	39,129	14.0%	6.5%
2004	13,224	47,561	5,564	10,356	18,788	57,917	70.4%	29.6%
2005	165,554	213,115	24,723	35,079	190,277	248,194	87.0%	13.0%
2006	98,959	312,074	19,901	54,980	118,860	367,054	83.3%	16.7%
2007	9	312,083	1,011	55,991	1,020	368,074	0.9%	99.1%
2008	0	312,083	0	55,991	0	368,074	n/a	n/a
2009	46,032	358,115	3,336	59,327	49,368	417,442	93.2%	6.8%
2010	209,937	568,052	31,467	90,794	241,404	658,846	87.0%	13.0%
2011	127,214	695,266	20,888	111,682	148,102	806,948	85.9%	14.1%
2012	253,267	948,533	23,406	135,088	276,673	1,083,621	91.5%	8.5%
2013	24,112	972,645	2,379	137,467	26,491	1,110,112	91.0%	9.0%
2014	0	972,645	4,325	141,792	4,325	1,114,437	0.0%	100.0%
2015	0	972,645	171	141,963	171	1,114,608	0.0%	100.0%
2016	699	973,344	0	141,963	699	1,115,307	100.0%	0.0%
2017	350,994	1,324,338	9,248	151,211	360,242	1,475,549	97.4%	2.6%

(1) Production in both DWA and CVWD service areas.
(2) This table excludes all non-SWP supplemental water deliveries such as those made for CPV Sentinel.

EXHIBIT 6
DESERT WATER AGENCY
SUMMARY OF DELIVERIES TO METROPOLITAN WATER DISTRICT (MWD)
AND TO GROUNDWATER REPLENISHMENT FACILITIES (AF)[1]

BEFORE EXCHANGE AGREEMENT (JULY 1973 - JUNE 1984)

		Delivery to MWD																			Delivery to DWA/CVWD Recharge Facilities								MWD Delivery Surplus/(Deficit) Prior to Exchange and Delivery Agreement	
					SWP Contract Water									Non-SWP Contract Water															
					SWP Surplus Water									CVWD						DWA		From SWP Exchange Account			From Other Accounts					
Year	Table A DWA/CVWD Combined Allocation	Table A Allocation Delivered to MWD	% Delivery to MWD	Carry-Over	Pool A	Pool B	Multi-Year Pool	Article 21	Flood	Yuba	Other	Total	SWP Total	DMB Pacific	Glorious Land Rosedale	Colorado River Credit	Needles	MWD QSA	CPV-Sentinel	Total	WRRF[2]	MCRF[3]	Total	WRRF[2]	MCRF[3]	Total	Total WRRF	Total MCRF	Grand Total	Annual	Cumulative
1973 (Jul-Dec)	14,800	14,800	100%										14,800							14,800	7,475		7,475				7,475		7,475	(7,325)	(7,325)
1974	16,400	16,400	100%										16,400							16,400	15,396		15,396				15,396		15,396	(1,004)	(8,329)
1975	18,000	18,000	100%										18,000							18,000	20,126		20,126				20,126		20,126	2,126	(6,203)
1976	19,600	19,600	100%										19,600							19,600	13,206		13,206				13,206		13,206	(6,394)	(12,597)
1977	21,421	0	0%										0							0	0		0				0		0	0	(12,597)
1978	23,242	25,384	109%										25,384							25,384	0		0				0		0	(25,384)	(37,981)
1979	25,063	25,063	100%										25,063							25,063	25,192		25,192				25,192		25,192	129	(37,852)
1980	27,884	27,884	100%										27,884							27,884	26,341		26,341				26,341		26,341	(1,543)	(39,395)
1981	31,105	31,105	100%										31,105							31,105	35,251		35,251				35,251		35,251	4,146	(35,249)
1982	34,326	34,326	100%										34,326							34,326	27,020		27,020				27,020		27,020	(7,306)	(42,555)
1983	37,547	37,547	100%										37,547							37,547	53,732		53,732				53,732		53,732	16,185	(26,370)
1984 (Jan-Jun)[4]	N/A	25,849	N/A										*25,849*							*25,849*	*50,912*		*50,912*				*50,912*		*50,912*	25,063	(1,307)
1984 Total	40,768	40,768	100%										40,768							40,768	83,708		83,708				83,708		83,708		

WITH EXCHANGE AGREEMENT (JULY 1984 - 2016)

		Delivery to MWD																			Delivery to DWA/CVWD Replenishment Facilities								MWD Exchange and Advance Deliveries				
					SWP Contract Water									Non-SWP Contract Water																		
					SWP Surplus Water									CVWD						DWA		From SWP Exchange Account			From Other Accounts							Advance Delivery Account[5] Credit/(Debit)	
Year	Table A DWA/CVWD Combined Allocation	Table A Allocation Delivered to MWD	% Delivery to MWD	Carry-Over	Pool A	Pool B	Multi-Year Pool	Article 21	Flood	Yuba	Other	Total	SWP Total	DMB Pacific	Glorious Land Rosedale	Colorado River Credit	Needles	MWD QSA	CPV-Sentinel	Total	WRRF[2]	MCRF[3]	Total	WRRF[2]	MCRF[3]	Total	Total WRRF	Total MCRF	Grand Total	Exchange Deliveries	Advance Deliveries	Advance Deliveries Converted to Exchange Deliveries	Annual	Balance
1984 (Jul-Dec)[5]	N/A	14,919	N/A										*14,919*							*14,919*	*32,796*		*32,796*				*32,796*		*32,796*	32,796	16,570		16,570 [6]	16,570
1985	43,989	43,989	100%										43,989							43,989	251,994		251,994				251,994		251,994	251,994	208,005		208,005	224,575
1986	47,210	47,210	100%										47,210				10,000 [7]			57,210	288,201		288,201	10,000 [7]		10,000	298,201		298,201	288,201	240,991		240,991	465,566
1987	50,931	50,931	100%										50,931							50,931	104,334		104,334				104,334		104,334	104,334	53,403		53,403	518,969
1988	54,652	54,652	100%										54,652							54,652	1,096		1,096				1,096		1,096	1,096			53,556	(53,556)	465,413
1989	58,373	58,373	100%										58,373							58,373	12,478		12,478				12,478		12,478	12,478			45,895	(45,895)	419,518
1990	61,200	61,200	100%										61,200							61,200	31,721		31,721				31,721		31,721	31,721			29,479	(29,479)	390,039
1991	61,200	18,360	30%										18,360							18,360	14		14				14		14	14			18,346	(18,346)	371,693
1992	61,200	27,624	45%										27,624							27,624	40,870		40,870				40,870		40,870	40,870	13,246		13,246	384,939
1993	61,200	61,200	100%										61,200							61,200	60,153		60,153				60,153		60,153	60,153			1,047	(1,047)	383,892
1994	61,200	37,359	61%										37,359							37,359	36,763		36,763				36,763		36,763	36,763			596	(596)	383,296
1995	61,200	61,200	100%										61,200							61,200	61,318		61,318				61,318		61,318	61,318	118			118	383,414
1996	61,200	61,200	100%			103,641					103,641	164,841								164,841	138,266		138,266				138,266		138,266	138,266			26,575	(26,575)	356,839
1997	61,200	61,200	100%			50,000			27,130		77,130	138,330								138,330	113,677		113,677				113,677		113,677	113,677			24,653	(24,653)	332,186
1998	61,200	61,200	100%			75,000			20,156		95,156	156,356								156,356	132,455		132,455				132,455		132,455	132,455			23,901	(23,901)	308,285
1999	61,200	61,200	100%			47,380					47,380	108,580								108,580	90,601		90,601				90,601		90,601	90,601			17,979	(17,979)	290,306
2000	61,200	55,080	90%			9,837		35,640			1 [8]	45,478	100,558								100,558	72,450		72,450				72,450		72,450	72,450			28,108	(28,108)	262,198
2001	61,200	23,868	39%			242						242	24,110								24,110	707		707				707		707	707			23,403	(23,403)	238,795
2002	61,200	42,840	70%		436	819		300				1,555	44,395								44,395	33,435	4,733	38,168				33,435	4,733	38,168	38,168			6,227	(6,227)	232,568
2003	61,200	55,080	90%	(17,867)	457	58		532			2 [8]	1,049	38,262								38,262	902	59	961				902	59	961	961			37,301	(37,301)	195,267
2004	61,200	18,597	30%	17,867		191						191	36,655								36,655	13,224	5,564	18,788				13,224	5,564	18,788	18,788			17,867	(17,867)	177,400
2005	171,100	60,152	35%	27,618	585	3,253						3,838	91,608								91,608	165,554	24,723	190,277				165,554	24,723	190,277	190,277	98,669		98,669	276,069
2006	171,100	171,100	100%									0	171,100								171,100	98,959	19,901	118,860				98,959	19,901	118,860	118,860			52,240	(52,240)	223,829
2007	171,100	102,660	60%		802							802	103,462			16,000 [9]	*				119,453	9	1,011	1,020	16,000		16,000	16,009	1,011	17,020	1,020			102,442	(102,442)	121,387
2008	171,100	59,885	35%		151					1,833		1,984	61,869		3,000	8,008 [9]	*		8,350 *		81,218	0	0	0	8,008	503 [13]	8,511	8,008	503	8,511	0			64,869	(64,869)	56,518
2009	171,100	57,710	34%		35	58				2,982	500 [10]	3,575	61,285		3,000 *	7,992 [9]	*				72,268	46,032	3,336	49,368	10,992	754 [13]	11,746	57,024	4,090	61,114	49,368			11,917	(11,917)	44,601
2010	194,100	97,050	50%	10,730	66	536						602	108,382	8,393 *				10,000 *			126,775	209,937	31,467	241,404	18,393	1,743 [13]	20,136	228,330	33,210	261,540	241,404	133,022		133,022	177,623
2011	194,100	124,156	64%		836	1,666		5,800				8,302	132,458					105,000 *			237,458	127,214	20,888	148,102	105,000	5,350 [13]	110,350	232,214	26,238	258,452	148,102	25,644 [7]		25,644	203,267
2012	194,100	126,166	65%	31,124	431					967		1,398	158,688		4,000 *						162,688	253,267	23,406	276,673	4,000		4,000	257,267	23,406	280,673	276,673	117,985		117,985	321,252
2013	194,100	67,936	35%		230					2,664		2,894	70,830		16,500			2,508 *			89,838	24,112	2,379	26,491	2,508		2,508	26,620	2,379	28,999	26,491			60,839	(60,839)	260,413
2014	194,100	9,706	5%							1,213		1,213	10,919		5,000			3,549			19,468	0	4,325	7,858	3,533		3,533	3,533	4,325	11,391	7,858			11,610	(11,610)	248,803
2015	194,100	38,820	20%				67			426		493	39,313		9,500			865 *			49,678	0	171	171	865		865	865	171	1,036	171			48,642	(48,642)	200,161
2016	194,100	74,249	38%				566					566	74,815		16,500			64,135			155,450	699	0	699	35,000 **		35,000	35,699	0	35,699	699			119,751	(119,751)	80,410
2017	194,100	66,805	34%	25,435	1,131						16,776 [11]	17,907	110,147		5,397			35,000			150,544	350,994	9,248	360,242	35,000 **		35,000	385,994	9,248	395,242	360,242	244,698		244,698	325,108
TOTALS[12]:	3,891,611	2,309,635	---	94,907	5,160	292,681	633	42,272	47,286	10,085	17,279	415,396	2,819,938	8,393	62,897	32,000	10,000	221,057	8,350	3,162,608	2,717,889	151,211	3,223,627	249,299	8,350	257,649	3,318,182	159,561	3,481,276	3,223,627	1,152,351	827,243	---	---

NOTES:

(1) As reported by Metropolitan Water District in its monthly "Exchange Water Delivery in Acre-Feet" reports.
(2) Whitewater River Replenishment Facility
(3) Mission Creek Replenishment Facility
(4) The Advance Delivery Agreement between MWD and CVWD/DWA became effective on 7/1/84; discrepancies in exchange deliveries between MWD and CVWD/DWA after 7/1/84 are adjusted per said agreement.
(5) The effective date of the Advance Delivery Agreement between MWD and CVWD/DWA was 7/1/84.
(6) The first advance delivery figure of 16,570 AF is equal to 32,796 AF of deliveries to CVWD/DWA from 7/84 - 12/84, minus 14,919 AF of deliveries to MWD from 7/84 - 12/84, minus cumulative MWD delivery deficiency of 1,307 AF as of 7/1/84.
(7) 10,000 AF of Needles Water delivered to CVWD in 1986 was credited to the Advance Delivery Account in 2011.
(8) Adjustment for rounding error to reconcile MWD Advance Delivery Account Balance
(9) CVWD's PVID credit
(10) Drought Water Bank
(11) Flexible Storage Payback at Lake Perris
(12) Since 1973
(13) CPV Sentinel
* Not deducted from the Advance Delivery Account
** Added to the Advance Delivery Account
Not included in DWR Bulletin 132-17 Appendix B Table B-5B

/DFS
101-33P42TBLS.xlsx/Exhibit6
(5/29/2018)

EXHIBIT 7
DESERT WATER AGENCY AND COACHELLA VALLEY WATER DISTRICT
COMPARISON OF HISTORIC AND PROPOSED GROUNDWATER REPLENISHMENT
ASSESSMENT RATE FOR THE WEST WHITEWATER RIVER AND MISSION CREEK SUBBASIN AOBS

	DWA		CVWD WEST WHITEWATER		CVWD MISSION CREEK	
YEAR	$/AF	% INCREASE	$/AF	% INCREASE	$/AF	% INCREASE
78/79	$6.81	---	No Assessment	---	No Assessment	---
79/80	$9.00	32%	No Assessment	---	No Assessment	---
80/81	$9.50	6%	$5.66	---	No Assessment	---
81/82	$10.50	11%	$7.43	31%	No Assessment	---
82/83	$21.00	100%	$19.82	167%	No Assessment	---
83/84	$36.50	74%	$33.23	68%	No Assessment	---
84/85	$37.50	3%	$34.24	3%	No Assessment	---
85/86	$31.00	-17%	$21.81	-36%	No Assessment	---
86/87	$21.00	-32%	$19.02	-13%	No Assessment	---
87/88	$22.50	7%	$19.55	3%	No Assessment	---
88/89	$20.00	-11%	$15.96	-18%	No Assessment	---
89/90	$23.50	18%	$19.66	23%	No Assessment	---
90/91	$26.00	11%	$23.64	20%	No Assessment	---
91/92	$31.75	22%	$25.66	9%	No Assessment	---
92/93	$31.75	0%	$28.23	10%	No Assessment	---
93/94	$31.75	0%	$31.05	10%	No Assessment	---
94/95	$31.75	0%	$34.16	10%	No Assessment	---
95/96	$31.75	0%	$37.58	10%	No Assessment	---
96/97	$31.75	0%	$37.58	0%	No Assessment	---
97/98	$31.75	0%	$42.09	12%	No Assessment	---
98/99	$31.75	0%	$47.14	12%	No Assessment	---
99/00	$31.75	0%	$52.80	12%	No Assessment	---
00/01	$33.00	4%	$59.14	12%	No Assessment	---
01/02	$33.00	0%	$66.24	12%	No Assessment	---
02/03	$35.00	6%	$72.86	10%	$59.80	---
03/04	$35.00	0%	$72.86	0%	$59.80	0%
04/05	$45.00	29%	$78.86	8%	$59.80	0%
05/06	$50.00	11%	$78.86	0%	$59.80	0%
06/07	$63.00	26%	$83.34	6%	$65.78	10%
07/08	$63.00	0%	$91.67	10%	$72.36	10%
08/09	$72.00	14%	$93.78	2%	$76.60	6%
09/10	$72.00	0%	$102.45	9%	$87.56	14%
10/11	$82.00	14%	$102.45	0%	$89.75	3%
11/12	$82.00	0%	$107.57	5%	$98.73	10%
12/13	$92.00	12%	$110.26	3%	$98.73	0%
13/14	$92.00	0%	$110.26	0%	$98.73	0%
14/15	$102.00	11%	$110.26	0%	$98.73	0%
15/16	$102.00	0%	$112.00	2%	$112.00	13%
16/17	$102.00	0%	$128.80	15%	$123.20	10%
17/18	$120.00	18%	$143.80	12%	$135.52	10%
18/19	$140.00 *	17%	$143.80 *	0%	$135.52 *	0%

* Proposed replenishment assessment rate

APPENDIX A

APPENDIX A
UPPER COACHELLA VALLEY
MONTHLY AND ANNUAL RECORDED PRECIPITATION DATA
(INCHES)
2017

STATION NAME	WHITEWATER NORTH	SNOW CREEK	DESERT HOT SPRINGS	TACHEVAH DAM	TRAM VALLEY	CATHEDRAL CITY	THOUSAND PALMS	PALM SPRINGS SUNRISE	EDOM HILL	OASIS	MECCA LANDFILL III	THERMAL AIRPORT
LOCATION	**WWR**	**WWR**	**MC**	**WWR**	**WWR**	**WWR**	**WWR**	**WWR**	**MC**	**EWR**	**EWR**	**EWR**
STATION NUMBER	**233**	**207**	**57**	**216**	**224**	**34**	**222**	**442**	**436**	**431**	**432**	**443**
JANUARY	10.40	11.30	3.51	4.73	8.81	2.57	2.12	4.27	2.49	1.41	0.94	1.39
FEBRUARY	2.89	3.41	2.09	1.49	2.68	2.05	1.62	1.74	1.48	0.69	0.50	0.68
MARCH	0.30	0.52	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01
APRIL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY	0.03	0.01	0.00	0.00	0.08	0.02	0.02	0.00	0.00	0.02	0.00	0.00
JUNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.02	0.00	0.05	0.06	0.00
AUGUST	0.09	0.09	0.34	0.00	0.56	0.55	0.78	0.93	0.25	0.16	0.01	0.08
SEPTEMBER	0.00	0.02	0.20	1.29	0.81	0.32	0.04	1.71	0.07	0.16	0.39	1.09
OCTOBER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOVEMBER	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DECEMBER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	**13.73**	**15.38**	**6.15**	**7.54**	**12.94**	**5.51**	**4.58**	**8.68**	**4.29**	**2.49**	**1.91**	**3.25**
AVERAGE: UPPER	**8.76**											
AVERAGE: LOWER										**2.55**		
AVERAGE: ALL	**7.20**											

APPENDIX B

ADDENDUM TO SETTLEMENT AGREEMENT
MANAGEMENT AREA DELIVERIES

The Settlement Agreement between Coachella Valley Water District (CVWD), Desert Water Agency (DWA) and Mission Springs Water District (MSWD) dated December 7, 2004 shall be supplemented by the following Addendum, and thus shall be deemed a part thereof:

The Mission Creek Groundwater Replenishment Agreement provides for the delivery to the Mission Creek Subbasin, for groundwater replenishment, of a proportionate share of the imported water delivered to CVWD and DWA for replenishment of the Upper Coachella Valley Groundwater Basin. To ensure that the Mission Creek Subbasin receives its proportionate share of that water, as set forth in the Mission Creek Replenishment Agreement, and to provide for the monitoring thereof, the following procedures shall be applied:

Each year CVWD and DWA shall calculate the combined total quantity of water produced during the previous year from the Whitewater River Management Area and the Mission Creek Management Area, and from sources tributary to those Management Areas, and shall determine from that the percentages of the total production from those Management Areas and their sources.

Water supplies available to CVWD and DWA each year, through their respective State Water Project Contracts, for the replenishment of those Management Areas will be allocated and delivered to the Management Areas for groundwater replenishment in the same percentages, subject to delivery capability and operational constraints in any particular year.

In the event that additional subbasins benefit from recharge programs within CVWD and DWA boundaries, the respective production and recharge delivery percentages from those management areas in those subbasins shall be included in the above described calculations, allocations, and deliveries.

Production and recharge quantities shall be reviewed by the parties to the Management Committee (MSWD, CVWD and DWA) through the Management Committee process. CVWD and DWA will endeavor to accomplish annual proportionate management area deliveries; however, when constrained by operating limitations, they may over deliver or under deliver water to the management areas from year to year as necessary to obtain as much imported water as may be available. Cumulative water deliveries between or among management areas shall be balanced as and when determined by the Management Committee, but no later than 20 years from the date of the settlement agreement and each 20 years thereafter.

The provisions of this Addendum may be enforced by any party hereto.

IN WITNESS WHEREOF, The Parties have caused this Addendum to be executed by their duly authorized representatives on the date first above written.

MSWD:

Mission Springs Water District,
a California county water district

By _____

Its: President

By _____

Its: Vice President

DWA:

Desert Water Agency,
a public agency of the State of California

By _____

Its: President

By _____

Its: Vice President

CVWD:

Coachella Valley Water District,
a California county water district

By _____

Its: President

By _____

Its: Vice President

7-D
7-E

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

JUNE 5, 2018

RE: REQUEST ADOPTION OF:

(1) RESOLUTION NO. 1185 CALLING ELECTION FOR THREE POSITIONS ON THE BOARD OF DIRECTORS

(2) RESOLUTION NO. 1186 NOTIFYING COUNTY CLERK THAT CANDIDATES WILL BE RESPONSIBLE TO PAY FOR PUBLICATION OF STATEMENT OF QUALIFICATIONS

The County of Riverside requires certain information from the Agency prior to the November 6, 2018 general election. Prior to the nomination period for election to the Desert Water Agency's Board of Directors, the Agency must adopt resolutions: (1) calling an election and requesting consolidation with all other elections held within our boundaries; and, (2) specifying whether the Agency will pay the costs of candidates' statements. Resolution No. 1185 has been prepared calling the election and requesting consolidation, and Resolution No. 1186 notifies the County Clerk that candidates will be responsible to pay the cost for the publication of the Statement of Qualifications (the estimated cost is $700). This is consistent with past elections.

A copy of the Uniform District Election Law calendar is attached. The calendar provides information pertaining to the November 2018 election process and related schedules. Candidates may contact the County Registrar of Voters for questions regarding the election process. The County will be sending candidate handbooks, nomination papers, and other necessary materials to the Agency at a later date for disbursement to potential candidates. No candidate applications may be released to interested individuals until mid-July.

Staff recommends adoption of Resolution No. 1185, entitled: "Calling an election for November 6, 2018 and requesting consolidation with all other elections conducted within the Agency's boundaries" and Resolution No. 1186, entitled: "Notifying the County Clerk that candidates will pay for publication of Statements of Qualification".

UNIFORM DISTRICT ELECTION LAW ELECTION
NOVEMBER 6, 2018
(E.C. §§ 9300 *et seq*., 10500 *et seq*.)

The materials contained in this calendar represent the research and opinions of the staff at the Riverside County Registrar of Voters. The contents of this calendar and any legal interpretations contained herein are not to be relied upon as being correct either factually or as legal opinion. Reliance on the content without prior submission to and approval of your appropriate public counsel is at the reader's risk.

Please call (951) 486-7200 if you have any questions or comments or visit our website at www.voteinfo.net. Thank you.

DATE	PERSON RESPONSIBLE	DESCRIPTION
July 4	Registrar of Voters	*INDEPENDENCE DAY (CO. ORD. 358.8)* The Registrar of Voters office will be closed.
July 4 (125)	District	*BOUNDARY CHANGES (E.C. § 12262)* Suggested last day boundary changes may be made for this election.
July 4 (125)	District	*DELIVER NOTICE OF ELECTION AND MAP OF DISTRICT (E.C. §§ 10502, 10504, 10509, 10522)* No later than this date the District Secretary shall deliver a notice containing the elective offices to be filled and whether the district or candidate is to pay for the Candidates Statement. Said notice shall bear the secretary's signature and the district seal. The District Secretary shall also deliver a map showing the current boundaries of the district and divisions, if any.
July 9 – August 8 (120 – 90)	Registrar of Voters / District Secretary	*PUBLISH NOTICE OF ELECTION (E.C. §§ 12112, 12113)* Between these dates the Registrar of Voters shall publish once in a newspaper of general circulation published in the district or, if no such newspaper exists, a newspaper having general circulation in the district, a Notice of Election, which shall contain the following: 🇺🇸 Date of election. 🇺🇸 Name of each office for which candidates may file. 🇺🇸 Qualifications required by the principal act for each office. 🇺🇸 The location where Declaration of Candidacy may be obtained. 🇺🇸 Office in which completed declarations are required to be filed. 🇺🇸 Date and time after which no Declaration of Candidacy may be accepted for filing. 🇺🇸 Statement that appointment to office will be made pursuant to E.C. 10515 if there are insufficient nominees and no petition has been filed requesting the election be held. Said notice shall also be delivered to the District Secretary and posted in the district office. *GENERAL PRESS RELEASE (E.C. § 12112)* Press release should include offices to be filled and telephone number information regarding filing for elective office.

UNIFORM DISTRICT ELECTION LAW ELECTION
NOVEMBER 6, 2018
(E.C. §§ 9300 *et seq*., 10500 *et seq*.)

DATE	PERSON RESPONSIBLE	DESCRIPTION
July 13 (116)	Registrar of Voters	*PRECINCTING SECTION TO COMPLETE BOUNDARY CHANGES* No later than this date, precinct section must complete boundary changes.
July 16 – August 10 (113 – 88)	Candidates / Registrar of Voters / District Secretary	*OBTAIN AND FILE DECLARATION OF CANDIDACY (E.C. §§ 10510, 13107)* Between these dates a candidate may obtain and file a Declaration of Candidacy with the Registrar of Voters in person, or by mail. If by mail, Declaration of Candidacy may be returned by certified mail in time to reach the Registrar of Voters by no later than the filing deadline. The ballot designation worksheet must be filed at the same time as the Declaration of Candidacy. Either the Registrar of Voters or the District Secretary will issue the Declaration of Candidacy. No candidate shall withdraw his or her Declaration of Candidacy after 5 p.m. on the 88th day prior to the election.
July 16 – August 10 (113 - 88)	Candidates / Registrar of Voters / District Secretary	*CANDIDATE STATEMENT (E.C. §§ 10540, 13307, 13309, 13311, 18351)* Candidates who want to file a candidate's statement must file it with the Registrar of Voters at the same time that the Declaration of Candidacy is filed. Candidate statements are confidential until deadline for filing has passed. 🇺🇸 *PUBLIC EXAM PERIOD (E.C. § 13313)* The 10 day exam period for Candidate Statements will be held August 11 thru August 20. If extension applies, see extension period.
July 16 – August 10 (113 – 88)	Candidates / Registrar of Voters	*STATEMENT OF ECONOMIC INTEREST (G.C. §§ 87200 et seq., 87300 et seq.)* A Statement of Economic Interests must be filed for all candidates with the Registrar of Voters by the close of the nomination period.
July 16 – August 10 (113 – 88)	Candidates / Registrar of Voters / District Secretary	*CODE OF FAIR CAMPAIGN PRACTICES (E.C. § 20400 et seq.)* At the time a candidate is issued nomination papers each candidate will be issued a Code of Fair Campaign Practices. Filing it is voluntary and it may be filed with the Registrar of Voters any time prior to the election. It is available for public inspection until 30 days after the election.
August 10 (88)	District	*BALLOT MEASURE (E.C. §§ 9312, 10403, 13247)* Last day for resolution calling a measure to be submitted to the Registrar of Voters. A copy shall be made available to any voter. The statement of all measures submitted to the voters shall be abbreviated on the ballot. The statement shall contain not more than 75 words for each measure to be voted on.

UNIFORM DISTRICT ELECTION LAW ELECTION
NOVEMBER 6, 2018
(E.C. §§ 9300 *et seq*., 10500 *et seq*.)

DATE	PERSON RESPONSIBLE	DESCRIPTION
August 10 (88)	Registrar of Voters	*PUBLISH NOTICE OF ELECTION (E.C. § 12111; G.C. §§ 6060, 6061)* Publish a notice of election as soon as possible pursuant to section 12111 of the California Elections Code. A synopsis of the measure(s) shall be included in the publication. Government Code 6061 requires the notice to be published once. The last day to submit arguments to the Registrar of Voters should also be included in the notice. A copy of the notice shall be delivered to the district and posted in the district office.
August 10 (88)	Candidates / Registrar of Voters	*FILE DECLARATION OF CANDIDACY / WITHDRAW (E.C. § 10510)* Last day for candidates to file their Declarations of Candidacy and Candidate Statements with the Registrar of Voters. (Candidate Statement is optional). This is also the last day to withdraw candidacy. Candidate must withdraw before 5 p.m., unless there is an extension of the nomination period.
August 11 (87)	Candidates / Registrar of Voters	*WITHDRAW CANDIDATE STATEMENT (E.C. § 13307)* Last day to withdraw candidate statement, unless there is an extension of the nomination period. Withdrawal of candidate statement must be in writing.
August 15 (83)	Candidates / Registrar of Voters / District	*EXTENSION OF NOMINATION PERIOD (E.C. §§ 10510, 10516)* If the incumbent does not file by 5 p.m. on the last day of the nomination period, any eligible person, other than the incumbent, shall have until 5 p.m. of the 83rd day prior to the election to file a Declaration of Candidacy. The nomination extension is not applicable where there is no incumbent to be elected. If this section is applicable, a candidate may withdraw his or her Declaration of Candidacy up until 5:00 p.m. on the 83rd day before the election. 🇺🇸 *PUBLIC EXAM PERIOD FOR EXTENSION (E.C. § 13313)* The 10 day exam period for Candidate Statements will be held August 16 thru August 25.
August 15 (83)	Registrar of Voters / District Secretary	*NOTICE WHETHER ELECTION WILL BE HELD (E.C. § 10515)* If there are insufficient nominees for the offices to be filled, and a petition requesting the election be held has not been presented to the officer conducting the election, then the election shall not be held. The Registrar of Voters shall request the Board of Supervisors to appoint the qualified candidate(s) to such office. If there are no candidates, the Board shall appoint a qualified person to each office. Persons appointed shall qualify, take office, and serve as if elected.
August 15 (83)	District	*LAST DAY TO WITHDRAW MEASURE (E.C. § 9605)* Whenever a legislative body has ordered that a measure be submitted to the voters of any jurisdiction at an election, the order of election shall not be amended or withdrawn after this date.

UNIFORM DISTRICT ELECTION LAW ELECTION
NOVEMBER 6, 2018
(E.C. §§ 9300 *et seq*., 10500 *et seq*.)

DATE	PERSON RESPONSIBLE	DESCRIPTION
August 16 (82)	Candidates / Registrar of Voters	*WITHDRAW CANDIDATE STATEMENT (EXTENSION) (E.C. §§ 10516, 13307)* In the event there is an extension of the nomination period, candidates may have until this date to withdraw candidate statements.
August 16 (82)	Secretary of State	*RANDOMIZED ALPHABET (E.C. § 13112)* On this date the Secretary of State shall conduct a drawing of the alphabet for determining the order of candidate's names on the ballot.
August 16 (82)	Registrar of Voters	*SEND LIST OF CANDIDATES TO DISTRICT SECRETARY* Approximate date to send list of qualified candidates to District Secretary and other county if it is involved. If election is not held, inform district of procedures that will be followed.
August 20 (78)	Registrar of Voters	*REQUEST BOARD OF SUPERVISORS TO APPOINT (if election will not be held) (E.C. § 10515)* Registrar of Voters shall request the Board of Supervisors at a regular or special meeting held prior to the Monday before the first Friday in December in which the election would have been held, to appoint to such office or offices the qualified candidate(s); or if no candidate(s), the Board shall appoint any qualified person to such office.
August 20 (78)	County Counsel	*LAST DAY TO SUBMIT IMPARTIAL ANALYSIS (E.C. §§ 9313, 9314)* Last day for County Counsel to submit impartial analysis to Registrar of Voters. The analysis shall include a statement indicating whether the measure was placed on the ballot by petition signed by the requisite number of voters or by the governing body of the district. The analysis shall be printed in the pamphlet preceding the arguments for or against the measure. The analysis is limited to 500 words 🇺🇸 *PUBLIC EXAM PERIOD (E.C. § 9380)* There will be a 10-day exam period for the Impartial Analysis. The period will be held August 21 thru August 30.
August 20 (78)	Proponents / Opponents	*LAST DAY TO FILE ARGUMENTS (E.C. §§ 9315, 9316, 9600)* Last day set by Registrar of Voters to submit arguments in favor or against the measure. Arguments may not exceed 300 words. No more than five signatures shall appear with any arguments. Authors of Argument form shall accompany all arguments. 🇺🇸 *PUBLIC EXAM PERIOD (E.C. § 9380)* There will be a 10-day exam period for arguments. The period will be held August 21 thru August 30.

UNIFORM DISTRICT ELECTION LAW ELECTION
NOVEMBER 6, 2018
(E.C. §§ 9300 *et seq*., 10500 *et seq*.)

DATE	PERSON RESPONSIBLE	DESCRIPTION
August 30 (68)	Proponents / Opponents	*REBUTTALS (E.C. §§ 9317, 9600)* Last day for the same authors of the primary argument to file rebuttals with the Registrar of Voters no later than 5:00 p.m. Rebuttals are limited to 250 words. Statement of Authors of Arguments form must be attached to the rebuttal. 🇺🇸 *PUBLIC EXAM PERIOD (E.C. § 9380)* There will be a 10-day exam period for Rebuttals. The period will be held August 31 thru September 9.
September 3	Registrar of Voters	*LABOR DAY (CO. ORD. 358.8)* The Registrar of Voters office will be closed.
September 10 (57)	Candidates / Registrar of Voters	*FIRST DAY NOMINATION PAPERS FOR WRITE-IN CANDIDACY WILL BE AVAILABLE (E.C. § 8600 et seq.)* Any qualifying person wishing to file as a write-in candidate may pick up nomination papers beginning on this date. Papers must be filed with the Registrar of Voters no later than 14 days prior to election day. Write-in candidates must also file Statement of Economic Interest (if applicable) and campaign disclosure statements.
September 11 (56)	Registrar of Voters	*ORDER PRINTING OF ELECTION MATERIAL (E.C. §§ 9312, 9380, 13313)* Suggested date to prepare copy for printer and order ballots.
September 23 – September 27 (44 - 40)	Candidates / Committees / Registrar of Voters	*FILING PERIOD FOR FIRST PRE-ELECTION CAMPAIGN DISCLOSURE STATEMENT (G.C. §§ 84200.5, 84200.8)* Filing period for 1st pre-election campaign statement covers transactions through September 22. Statements must be sent by personal delivery or first class mail.
September 24 (43)	Registrar of Voters	*SATELLITE LOCATION PRESS RELEASE (E.C. § 3018)* Notice of satellite locations shall be made by the elections official by the issuance of a general news release, issued not later than 14 days prior to voting at the satellite location, except that in a county with a declared emergency or disaster, notice shall be made not later than 48 hours prior to voting at the satellite location. The news release shall set forth the following information: 🇺🇸 The satellite location or locations. 🇺🇸 The dates and hours the satellite location or locations will be open. 🇺🇸 A telephone number that voters may use to obtain information regarding vote-by-mail ballots and the satellite locations.
September 27 – October 27 (40 - 10)	Registrar of Voters	*MAIL COUNTY VOTER INFORMATION GUIDE AND OTHER ELECTION MATERIAL TO VOTERS (E.C. §§ 9312, 9380, 10540, 13303, 13307)* Between these dates the Registrar of Voters shall mail a sample ballot to each voter, who is registered at least 29 days prior to the election.

UNIFORM DISTRICT ELECTION LAW ELECTION
NOVEMBER 6, 2018
(E.C. §§ 9300 *et seq*., 10500 *et seq*.)

DATE	PERSON RESPONSIBLE	DESCRIPTION
October 8	Registrar of Voters	*COLUMBUS DAY (CO. ORD. 358.8)* The Registrar of Voters office will be closed.
October 8 (29)	Registrar of Voters	*MAILED BALLOT PRECINCTS (E.C. §§ 3005, 3010, 3017, 3018, 3020, 4000 et seq.)* Approximate date to mail notices to voters in mailed ballot precincts, send official ballot and election material. Mail ballot precincts have less than 250 voters.
October 8 (29)	Registrar of Voters	*PRECINCTS, POLLING PLACES & ELECTION OFFICERS (E.C. §§ 12280 et seq., 12300 et seq.)* Last day for Registrar of Voters to establish polling places and appoint election officers for this election. Immediately following appointment, the Registrar shall mail appointment notices to election officers.
October 8 – October 27 (29 – 10)	Registrar of Voters	*PUBLISH POLLING PLACES & CENTRAL COUNTING PLACE (E.C. §§ 12105, 12109)* Suggested date to publish polling places. The notice will include the hours that the polls will be open and a Notice of Central Counting Place.
October 8 – October 30 (29 – 7)	Registrar of Voters	*VOTE-BY-MAIL BALLOT APPLICATIONS (E.C. §§ 3001, 3006, 3021, 3200)* Applications for vote-by-mail ballots may be made in person or by mail during this time frame.
October 19	Registrar of Voters	*VOTE-BY-MAIL PROCESSING PUBLIC NOTICE (E.C. § 15104)* The elections official shall notify vote-by-mail voter observers and the public at least 48 hours in advance of the dates, times, and places where vote-by-mail ballots will be processed and counted.
October 21 – October 25 (16 – 12)	Candidates / Committees / Registrar of Voters	*FILING PERIOD FOR SECOND PRE-ELECTION CAMPAIGN DISCLOSURE STATEMENT (G.C. §§ 84200.5, 84200.8)* Filing period for 2nd pre-election campaign statement covers transactions through October 20. Statements must be sent by personal delivery or guaranteed overnight service.
October 22 (15)	Registrar of Voters	*CLOSE OF REGISTRATION (E.C. §§ 2102, 2106)* Last day to register or transfer registration for this election.
October 22 (15)	Registrar of Voters	*COLLECTION CENTERS PUBLIC NOTICE (E.C. § 15260)* In establishing a collection center, the elections official may designate a group of precincts which the center shall serve and this designation shall be available for public inspection no later than 15 days before the election.

UNIFORM DISTRICT ELECTION LAW ELECTION
NOVEMBER 6, 2018
(E.C. §§ 9300 *et seq*., 10500 *et seq*.)

DATE	PERSON RESPONSIBLE	DESCRIPTION
October 23 (14)	Candidates / Registrar of Voters	*FILE DECLARATION OF WRITE-IN CANDIDACY (E.C. §§ 8600 et seq., 15340 et seq.)* Last day for write-in candidates to submit their write-in nomination documents to the Registrar of Voters.
October 23 – October 30 (14 – 7)	Registrar of Voters	*POST ELECTION OFFICERS & POLLING PLACES (E.C. § 12105.5)* Not less than one week before the election, the elections official shall post a list of all current polling places and a list of election officers appointed by the 15th day before the election. The elections official shall post this list in his or her office and on his or her Web site. The list shall remain posted for 30 days after completion of the canvass.
October 23	Registrar of Voters	*PROCESS BALLOTS (E.C. § 15101 et. seq.)* When ballots are to be counted by computer, the Registrar of Voters may begin processing ballots 10 business days prior to the election. No count may be made until after the polls close on election day.
October 30 (7)	Registrar of Voters	*LOGIC AND ACCURACY TESTING (E.C. § 15000)* No later than seven days prior to any election, the elections official shall conduct a test or series of tests to ensure that every device used to tabulate ballots accurately records each vote.
November 2 (4)	Registrar of Voters	*MANUAL TALLY PUBLIC NOTICE (E.C. § 15360)* The manual tally shall be a public process, with the official conducting the election providing at least a five day public notice of the time and place of the manual tally and of the time and place of the selection of the precincts to be tallied prior to conducting the tally and selection.
November 6		*ELECTION DAY* Voted ballots must be received by the elections official no later than the close of the polls on election day or be postmarked on or before election day and received no later than three days after election day to be counted. (E.C. § 3020, 4103)
November 8 (+2)	Registrar of Voters	*CANVASS ELECTION RETURNS (E.C. § 15301 et seq.)* Registrar of Voters shall commence the official canvass on this day.
November 9 – December 6 (+3 – 30)	Registrar of Voters	*ONE PERCENT MANUAL TALLY (E.C. § 15360)* During the Official Canvass the Elections Official shall conduct a public manual tally in 1 percent of the precincts chosen at random by the elections official.
November 12	Registrar of Voters	*VETERAN'S DAY (CO. ORD. 358.8)* The Registrar of Voters office will be closed.

UNIFORM DISTRICT ELECTION LAW ELECTION
NOVEMBER 6, 2018
(E.C. §§ 9300 *et seq*., 10500 *et seq*.)

DATE	PERSON RESPONSIBLE	DESCRIPTION
November 22 – November 23	Registrar of Voters	*THANKSGIVING DAY / DAY AFTER THANKSGIVING (CO. ORD. 358.8)* The Registrar of Voters Office will be closed.
December 4 (+28)	Registrar of Voters	*POST ELECTION OFFICERS & POLLING PLACES (E.C. § 12105.5)* Not later than 28 days after the election, the elections official shall post an updated list of polling places and election officers that actually served on election day. The elections official shall post this list in his or her office and on his or her Web site. The list shall remain posted for 30 days after completion of the canvass.
December 6 (+30)	Registrar of Voters	*SEND STATEMENT OF RESULTS (E.C. §§ 10550, 10551, 10553, 15372, 15374)* As soon as the canvass is completed, no later than this date, the Registrar of Voters shall mail a statement of results of the election to the district. The Registrar of Voters will also deliver to each person elected a certificate of election.
December 6 (+30)	Registrar of Voters	*COST OF ELECTION (E.C. §§ 10002, 10520)* Approximate date to send invoice to jurisdiction for cost of election. Any refund on Candidate Statements will also be processed by this date.
December 7	District	*OFFICERS TAKE OFFICE (E.C. § 10554)* Elective officers, elected or appointed, take office at noon on the first Friday in December next following the general district election. Prior to taking office, each elective officer shall take the official oath and execute any bond required by the principal act.
January 1 – January 31	Candidates / Committees / Registrar of Voters	*FILING PERIOD FOR SEMI-ANNUAL CAMPAIGN DISCLOSURE STATEMENT (G.C. § 84200)* Statement covers transactions through December 31. Statements must be sent by personal delivery or first class mail.

Note: Whenever a date prescribed by law falls on a weekend or holiday, such act may be performed on the next business day (E.C. 15; G.C. 6700, 6701)

RESOLUTION NO. 1185

A RESOLUTION OF THE BOARD OF DIRECTORS OF DESERT WATER AGENCY CALLING A GENERAL ELECTION FOR NOVEMBER 6, 2018 TO ELECT AGENCY DIRECTORS AND REQUESTING CONSOLIDATION WITH ALL OTHER ELECTIONS CONDUCTED WITHIN THE AGENCY BOUNDARIES ON THAT DATE

WHEREAS, a general election must be conducted on November 6, 2018 pursuant to the Uniform District Election Law to elect Directors to the Board of Directors of the Desert Water Agency; and

WHEREAS, the election may be consolidated with other elections conducted within the Agency's boundaries at significant cost savings to the Agency;

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

1. A general election will be conducted within the Desert Water Agency on November 6, 2018 for the purpose of electing Directors to fill positions on the Agency's Board of Directors currently held by the following Directors:

James Cioffi
Patricia G. Oygar
Joseph K. Stuart

2. Pursuant to Sections 10517 and 10520 of the California Elections Code, the Riverside County Clerk is requested to conduct the election on behalf of this Agency, and this Agency agrees to reimburse the County of Riverside for resulting expenses in conducting the election.

3. In accordance with Elections Code Sections 10402 and 10403, the Board of Supervisors of Riverside County is requested to order to have the general election consolidated with any other election conducted within the boundaries of the Desert Water Agency on November 6, 2018.

4. The consolidated election will be held and conducted, election officers appointed, voting precincts designated, ballots counted and returned, returns canvassed, results declared, certificates of election issued and all other proceedings incidental to and

connected with the election shall be regulated and done, in accordance with applicable provisions of the California Elections Code.

5. The Secretary of this Board of Directors is hereby instructed to file certified copies of this resolution with the Clerk of the Board of Supervisors of Riverside County and with the Riverside County Registrar of Voters. The Secretary of the Board of Directors and the Agency's legal counsel are authorized and instructed to take such further action as may be necessary in conducting this election.

ADOPTED this 5th day of June 2018.

_____
James Cioffi, President

ATTEST:

_____
Kristin Bloomer, Secretary-Treasurer

RESOLUTION NO. 1186

A RESOLUTION OF THE BOARD OF DIRECTORS OF DESERT WATER AGENCY NOTIFYING COUNTY CLERK THAT CANDIDATES WILL PAY FOR PUBLICATION OF STATEMENT OF QUALIFICATION

WHEREAS, Section 13307 of the California Elections Code requires this Agency to determine whether the Agency or the candidates will pay for publication of a Statement of Qualification of Candidate for election to the Board of Directors of the Desert Water Agency; and

WHEREAS, it appears to be in the best interest of this Agency to have each candidate for Director pay the expenses connected with publishing his or her particular qualifications, if the candidate chooses to have such a statement published, rather than have that financial burden assumed by those taxpayers who would be represented by said candidates; and

WHEREAS, this Agency desires that any such expense be paid by each candidate directly to the County of Riverside;

NOW, THEREFORE, BE IT RESOLVED that the Agency advises the County Clerk of the County of Riverside by copy of this Resolution that the seats occupied by the following Directors will be subject to the election at the general district election on November 6, 2018, those aforementioned Directors being:

James Cioffi
Patricia G. Oygar
Joseph K. Stuart

BE IT FURTHER RESOLVED that payment of the expenses connected with publication of candidates' statements of qualifications shall be made by candidates directly to the County of Riverside.

ADOPTED this 5th day of June 2018.

_____
James Cioffi, President

ATTEST:

_____
Kristin Bloomer, Secretary-Treasurer

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

JUNE 5, 2018

RE: REQUEST BOARD ACTION REGARDING A CLAIM FOR DAMAGES FILED BY CELESTE GARCIA

Attached for the Board's review is a claim form submitted to the Agency by Ms. Celeste Garcia on May 14, 2018.

Ms. Garcia claims that on March 2, 2018 at 6:50 p.m. while exiting an ice cream shop at 1551 N. Palm Canyon Dr. she walked into a mechanical device and lacerated her right leg. She is seeking damages for cosmetic scar revision surgery in the amount of $10,000.

It should be noted that the Agency is not responsible for this type of equipment, once installed per the request of the developer.

Staff requests that the Board deny the claim for damages filed by Ms. Garcia and forward to ACWA-JPIA for their handling.

RECEIVED
MAY 14 2018
DESERT WATER AGENCY
MANAGEMENT

Claim Form

(A claim shall be presented by the claimant or by a person acting on his behalf.)

NAME OF DISTRICT: DESERT WATER AGENCY

1 Claimant name, address (mailing address if different), phone number, social security number, e-mail address, and date of birth.

*Effective January 1, 2010, the Medicare Secondary Payer Act (Federal Law) requires the District/Agency to report all claims involving payments for bodily injury and/or medical treatments to Medicare. As such, if you are seeking **medical damages**, we **MUST** have both your Social Security Number and your date of birth.*

Name: Celeste Garcia
Phone Number: (760) 851-3386
Address(es): 73-650 Santa Rosa Way, Apt-319 Palm Desert, Calif.
Social Security No.: [redacted]
Date of Birth: 3/30/93
E-mail: 1499star@gmail.com

2 List name, address, and phone number of any witnesses.

Name:
Address:
Phone Number: ( )

3 List the **date, time, place, and other circumstances** of the occurrence or transaction, which gave rise to the claim asserted.

Date: 3-2-18 Time: 6:50 pm Place: 1551 N. Palm Canyon DR Palm Springs, CA 92262

Tell What Happened (give complete information):

Exited a ice cream shop walking behind others turned left on sidewalk when my right leg contacted a mechanical device and lacerated it.

NOTE: Attach any photographs you may have regarding this claim.

4 Give a general description of the indebtedness, obligation, injury, damage, or loss incurred so far as it may be known at the time of presentation of the claim.

Exited Ice Cream Shopp behind Others turned left when right leg Contacted a mechinal device that lacerated my leg.

5 Give the name or names of the public employee or employees causing the injury, damage, or loss, if known.

6 The amount claimed if it totals less than ten thousand dollars ($10,000) as of the date of presentation of the claim, including the estimated amount of any prospective injury, damage or loss, insofar as it may be known at the time of the presentation of the claim, together with the basis of computation of the amount claimed. If the amount claimed exceeds ten thousand dollars ($10,000), no dollar amount shall be included in the claim. However, it shall indicate whether the claim would be a limited civil case.

Claim value is uncertain as I may require cosmetic scar revision surgery. At this time I would value my claim at $10,000.00 Ten Thousand*

Date: 5/10/18 Time: 9:57 am Signature: Celeste Garcia

ANSWER ALL QUESTIONS. OMITTING INFORMATION COULD MAKE YOUR CLAIM LEGALLY INSUFFICIENT!

White --JPIA Office Copy / Yellow--District Office Copy / Pink--Claimant Copy

Revised - October 2015

Nationwide®

Date prepared	May 1, 2018
Notice of loss date	April 3, 2018
Claim number	005262-GH
Policy number	ACP GLO 3027502651
Questions?	Contact Claims Associate David Washburn WASHBUD1@nationwide.com Phone 614-427-4359 Fax 866-930-2950

RECEIVED
MAY 07 2018
DESERT WATER AGENCY
MANAGEMENT

Desert Water Agency Attn: Loss Control Dept.
PO Box 1710
Palm Springs, CA 92263-1710

Claim details

Insurer:	Nationwide Mutual Insurance Company
Policyholder:	PALM GROVE GROUP, LLC - DBA
Claimant:	Celeste Garcia
Claim number:	005262-GH
Loss date:	March 2, 2018
Loss location:	1551 N PALM CANYON DR, PALM SPRINGS, CA 92262-4409

Dear Desert Water Agency Loss Control,

Our insured informs us that you installed the fire suppression control system near the street at 1551 N. Palm Canyon Dr. in Palm Springs. Later an ice cream store was opened at this location. On March 2, 2018 a customer of the ice cream shop (which is our insured's tenant) was walking back to her car, her leg brushed up against the handle and she claims it sliced her leg open. She has hired and attorney and may need re-constructive surgery.

We are tendering the defense of this matter to you. It appears that when the system was installed, the edge of the handle was left sharp. I believe if someone had taken a few minutes to grind the edge smooth, she would not have been injured.

I have enclosed a copy of your written estimate. If you will contact me with an email, I will send you some photos and a copy of her attorney's letter of representation. Please contact me at your earliest convenience.

For more information

If you have any questions or concerns, please contact me at 614-427-4359 or WASHBUD1@nationwide.com.

Sincerely,

David Washburn
Nationwide Mutual Insurance Company
P.O. Box 182068
Columbus, OH 43218-2068

For your protection, California law requires the following to appear on this form. Any person who knowingly presents false or fraudulent claim for the payment of a loss is guilty of a crime and may be subject to fines and confinement in state prison.

DESERT WATER

Desert Water Agency
1200 Gene Autry Trail South
PO Box 1710
Palm Springs, CA 92263-1710
Telephone 760 323-4971
Fax 760 325-6505
www.dwa.org

September 24, 2013

Palm Grove Group, Inc.
609 Woodland Road
Pasadena, CA 91106

RE: ARRIVE HOTEL – 1551 N. PALM CANYON DRIVE, PALM SPRINGS, CA

Gentlemen:

This Agency proposes to provide domestic water service to the above-mentioned project and has established fees and charges for providing such service.

"Charges on Invoice" are established amounts and not subject to adjustments. Prices are subject to change without notice.

"Adjustable Funds" are estimates only, subject to any price change and open to final accounting. Any monies remaining above actual costs will be returned to you and any difference above estimates will be billed to you.

Our estimate of costs for charges and work to be done by this Agency is as follows:

I. CHARGES ON INVOICE

A) On Wawona
1-1" Service Lateral w/1" Meter and
1" RP Backflow $13,210.00
1-2" Service Lateral w/1½" Meter and
2" RP Backflow 25,995.00
1-1½" Meter on Existing Service
Acct #4410-0460 ..... 19,915.00
1-2" RP Backflow on Existing Service
Acct #4410-0460 ..... 1,610.00

B) On N. Palm Canyon Drive
1-2" RP Backflow on Acct #4410-0442 .... 1,610.00
1-1" Meter and 1" RP Backflow
On Acct #4410-0446..... 8,740.00
1-1" RP Backflow on Acct #4410-0447 ..... 690.00

TOTAL CHARGES ON INVOICE.....$71,770.00

II. ADJUSTABLE FUNDS

A) On Wawona
1-6" Commercial Hydrant $18,858.00
1-4" Fire Service w/DCDA "N Style"..... 20,778.00
B) On N. Palm Canyon Drive
2-6" Commercial Hydrants..... 41,483.00
1-4" Fire Service w/4" N Style DCDA 21,219.00

TOTAL ADJUSTABLE FUNDS.....$102,335.00

TOTAL CASH REQUIREMENT.....$174,105.00

Material required for work to be done by Agency forces will be ordered upon receipt of the above cash requirements. As orders may take up to 120 days for material deliveries, please allow for this time in your schedule.

Sincerely,

DESERT WATER AGENCY

Debbie Randall
Sr. Engineering Technician

DAR/ldp

Cc Barrett Bruchhauser, MDS Consulting, 78-900 Ave 47, Ste. 208, La Quinta, CA 92253

G/LDJ/STAFF/Randall/Arrive Hotel Srv Est

JOEL BRUCE JOHNSON

Attorney At Law/Sr Mediator ABCA
73-061 El Paseo Drive Suite 220
Palm Desert, California 92260
(760) 346-7660 FAX- 346-7008
JBJESQ42@AOL.COM

April 12, 2018

Mr David Washburn
NATIONWIDE INSURANCE COMPANY
P.O. Box 182068
Columbus, Ohio 43218-2068

Via Faxcom (866) 930-2950

RE: CELESTA GARCIA vs PALM GROVE GROUP
Claim No: 005262
Mishap Date- March 2, 2018

Dear Mr. Washburn :

Ms. Garcia is a business client of my associate, who enlisted my participation as legal representative, in the above matter.

Information provided to me indicates the client sustained a severe leg injury at your insured's business premises. A field investigation assignment has been ordered and will be shared during future contact. Having been given Notice of a dangerous condition, we trust your insured has taken precautionary measures, to-avoid similar incidents from occurring.

Please find the enclosed Statutory Designation form, today signed at our office.

Sincerely,

Joel B. Johnson
JBJ:sa

STATE OF CALIFORNIA

STATUTORY DESIGNATION OF LEGAL REPRESENTATIVE

In conformance with State Of California Insurance ***Code Provision 26956***

I/We [redacted] hereby appoint and designate

Joel Bruce Johnson
Attorney At Law
73-061 El Paseo Drive Ste 220
Palm Desert, CA 92260

as my/our legal and personal representatives in all related claim matters associated-with that motor vehicle accident which occurred on 3-2-18 and subject of Traffic Report Number #_____

Mr. Johnson's Law Offices and his associate counsel are authorized and empowered to act in my/our legal representative/s in dealings with insurance companies, medical providers, Law enforcement agencies, Court agents and other parties dealing with matters associated with this accident.

1) SIGNED: 3/26/18 DATED: 4-13-18

DATE OF BIRTH: 3/30/83 SSN #[redacted]

2) SIGNED: _____ DATED: _____

DATE OF BIRTH: _____ SSN #_____

3) SIGNED: _____ DATED: _____

DATE OF BIRTH: _____ SSN #_____

Parental Minor Consent Form _____

Minor's Name _____ DOB _____
Minor's Name _____ DOB _____
Minor's Name _____ DOB _____
Minor's Name _____ DOB _____


FDC Serves
Buildings 1 & 4,
Ice Cream, Lobby/
Restaurant, Coffee


Master

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

JUNE 5, 2018

RE: REQUEST BOARD ACTION REGARDING A CLAIM FOR DAMAGES FILED BY BENITA SILVA

Attached for the Board's review is a claim form submitted to the Agency by Ms. Benita Silva on May 14, 2018.

Ms. Silva claims that on April 1, sometime in the morning, she walked back to her vehicle in the parking lot of the Del Marcos hotel on Baristo Rd. and noticed damage to the left side. She noticed that Agency personnel were parked next to her vehicle and claims that they damaged the driver's side door. She is seeking the amount of $677.25 to repair her vehicle.

Photographs taken by construction personnel show damage to the driver's side door and rear door but Ms. Silva claims the Agency only damaged the driver's side door portion. Agency personnel were parked at least 4 feet away from her truck and deny causing any damage.

Staff requests that the Board deny the claim for damages filed by Ms. Silva.

Claim Form

(A claim shall be presented by the claimant or by a person acting on his behalf.)

RECEIVED
MAY 14 2018
DESERT WATER AGENCY
MANAGEMENT

NAME OF DISTRICT: DESERT WATER AGENCY

1 Claimant name, address (**mailing** address if different), phone number, [redacted], e-mail address, and date of birth.

*Effective January 1, 2010, the Medicare Secondary Payer Act (Federal Law) requires the District/Agency to report all claims involving payments for bodily injury and/or medical treatments to Medicare. As such, if you are seeking **medical damages**, we **MUST** have both your Social Security Number and your date of birth.*

Name: BENITA T SILVA
Phone Number: (760 904-7935
Address(es): 32200 CIELO VISTA RD APTO #2 CATHEDRAL City CA 92234
[redacted]
Date of Birth: 4/4/70
E-mail:

2 List name, address, and phone number of any witnesses.

Name:
Address:
Phone Number: ( )

3 List the **date, time, place,** and **other circumstances** of the occurrence or transaction, which gave rise to the claim asserted.

Date: 4/1/18 Time: Morning Place: DEL MARCOS HOTEL Palmsprings
Tell What Happened (give complete information): Time
I WAS Working That date Happen When I Come OUT I See my SCRACHT I ASK one of The Workers CAR. What Happen? and They Told me They didn't KNOW What happen BUT I Keep ASKing because they was The Only One's there park Close to my Truck. →

NOTE: Attach any photographs you may have regarding this claim.

4 Give a general description of the indebtedness, obligation, injury, damage, or loss incurred so far as it may be known at the time of presentation of the claim.

MY TRUCK IS SCRACT in my door The ~~(passenger door)~~ Driver Door

5 Give the name or names of the public employee or employees causing the injury, damage, or loss, if known.

NO injury

6 The amount claimed if it totals less than ten thousand dollars ($10,000) as of the date of presentation of the claim, including the estimated amount of any prospective injury, damage or loss, insofar as it may be known at the time of the presentation of the claim, together with the basis of computation of the amount claimed. If the amount claimed exceeds ten thousand dollars ($10,000), no dollar amount shall be included in the claim. However, it shall indicate whether the claim would be a limited civil case.

$677.25

Date: 5/11/18 Time: 11:30 Am Signature: [signature]

ANSWER ALL QUESTIONS. OMITTING INFORMATION COULD MAKE YOUR CLAIM LEGALLY INSUFFICIENT!

White --JPIA Office Copy / Yellow--District Office Copy / Pink--Claimant Copy

Revised - October 2015

and Told me That they did it
They give a phone Number of
Company TO Call you guys.
and they took pictures TOO
and they Told me they will
Talk TO there boss TO get
my TRUCK FIX

Date: 5/ 9/2018 05:39 PM
Estimate ID: 455
Estimate Version: 0
Preliminary
Profile ID: Mitchell

PRESTIGE COLLISION CENTER

73-812 DINAH SHORE DR, PALM DESERT, CA 92211
(760) 656-8927
Fax: (760) 454-1616
Email: prestigecollisioncenter@outlook.com
Tax ID: 46-5035065 BAR #: ARD00276374 EPA #: CAL102536201

Damage Assessed By: CASTILLO IRMA
Classification: Audit

Deductible: UNKNOWN

Owner: BENITA SILVA

Mitchell Service: 910438

Description: 2006 Toyota Tacoma PreRunner
Body Style: 4D PkupCrw 6' Bed 141" WB Drive Train: 4.0L Inj 6 Cyl 2WD
VIN: 5TEKU72N56Z230284
OEM/ALT: A Search Code: None
Options: PASSENGER AIRBAG, POWER LOCK, POWER WINDOW, POWER STEERING, AIR CONDITION
TILT STEERING COLUMN, AM/FM STEREO, DRIVER AIRBAG, SKID PLATES
ANTI-LOCK BRAKE SYS., TIRE INFLATION/PRESSURE MONITOR, CD PLAYER
POWER ADJUSTABLE EXTERIOR MIRROR, FIRST ROW BUCKET SEAT, CLOTH SEAT
DRIVER SEAT WITH POWER LUMBAR SUPPORT, REAR BENCH SEAT

Line Item	Entry Number	Labor Type	Operation	Line Item Description	Part Type/ Part Number	Dollar Amount	Labor Units
				Front Door			
1	002651	REF	BLEND	L Frt Door Outside		C	0.9
2	002667	BDY	REMOVE/INSTALL	L Frt Rear View Mirror			INC
3	002669	BDY	REMOVE/INSTALL	L Frt Door Power Mirror			0.7 #
4	002681	BDY	REMOVE/INSTALL	L Frt Otr Door Handle			0.3
				Rear Door			
5	000845	BDY	REPAIR	L Rear Door Repair Panel	Existing		4.0* #
6		REF	REFINISH	L Rear Door Outside		C	2.3
				Additional Operations			
7		REF	ADD'L OPR	Clear Coat			1.1
				Additional Costs & Materials			
8			ADD'L COST	Paint/Materials		152.65 *	
9			ADD'L COST	Hazardous Waste Disposal		1.18 *	

*** - Judgment Item**
 # - Labor Note Applies
C - Included in Clear Coat Calc

ESTIMATE RECALL NUMBER: 05/09/2018 16:08:59 455
Mitchell Data Version: OEM: APR_18_V
MAPP:APR_18_V
Software Version: 7.1.228

Date: 5/ 9/2018 05:39 PM
Estimate ID: 455
Estimate Version: 0
Preliminary
Profile ID: Mitchell

Estimate Totals

I. Labor Subtotals	Units	Rate	Add'l Labor Amount	Sublet Amount	Totals	
Body	5.0	55.00	0.00	0.00	275.00	T
Refinish	4.3	55.00	0.00	0.00	236.50	T
Taxable Labor					511.50	
Labor Summary	9.3				511.50	

II. Part Replacement Summary	Amount
Total Replacement Parts Amount	0.00

III. Additional Costs			Amount
Taxable Costs			153.83
Sales Tax	@	7.750%	11.92
Total Additional Costs			165.75

Paint Material Method: Rates
Init Rate = 35.50 , Init Max Hours = 99.9, Addl Rate = 0.00

IV. Adjustments	Amount
Customer Responsibility	0.00

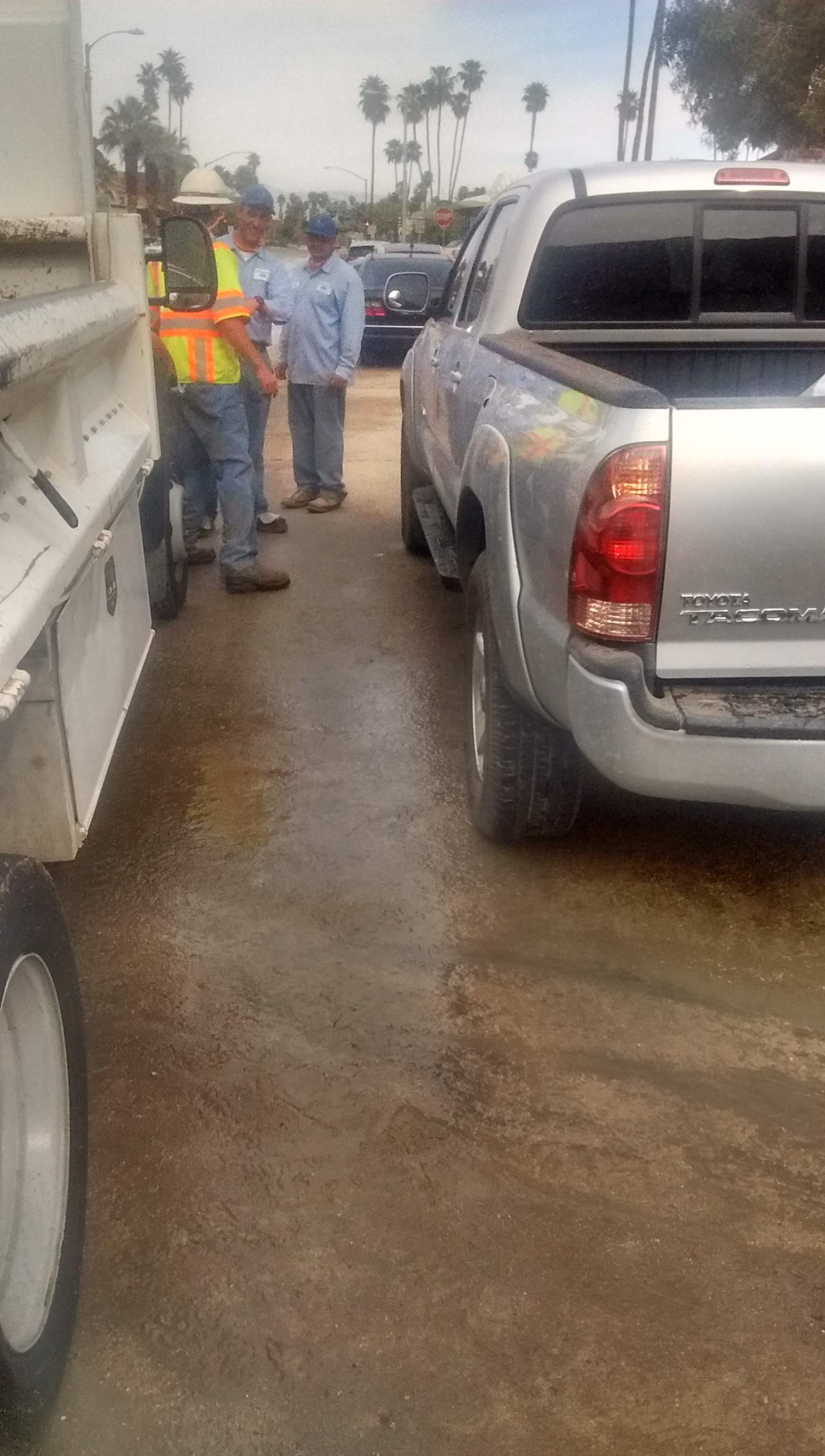
I.	Total Labor:	511.50
II.	Total Replacement Parts:	0.00
III.	Total Additional Costs:	165.75
	Gross Total:	677.25
IV.	Total Adjustments:	0.00
	Net Total:	677.25

This is a preliminary estimate.
Additional changes to the estimate may be required for the actual repair.

ESTIMATE RECALL NUMBER: 05/09/2018 16:08:59 455
Mitchell Data Version: OEM: APR_18_V
MAPP:APR_18_V
Software Version: 7.1.228


CAHUILLA
TACOMA


TACOMA


TOYOTA
TACOMA

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

JUNE 5, 2018

RE: REQUEST ADOPTION OF 2018-2021 MEMORANDUM OF UNDERSTANDING BETWEEN THE DESERT WATER AGENCY AND THE DESERT WATER AGENCY EMPLOYEES' ASSOCIATION FOR EMPLOYEE SALARIES AND BENEFITS AND ADOPTION OF THE JULY 1, 2018 DESERT WATER AGENCY SALARY SCHEDULES

The General Manager and management staff have met and conferred with representatives of the Desert Water Agency Employees' Association to reach mutual agreement upon the terms and conditions for a three-year term Memorandum of Understanding covering the period from July 1, 2018 through June 30, 2021.

The Human Resources Committee met on April 30, 2018, to discuss benefits negotiations. The minutes of that meeting were presented to the Board of Directors on May 15, 2018. See Attachment 1, Minutes of April 30, 2018 Human Resources Committee Meeting.

On May 15, 2018, the Desert Water Agency Employees' Association held a general membership meeting to go over the terms of the proposed MOU. DWAEA then had members vote on the terms and conditions of the 2018-2021 Memorandum of Understanding. The members approved the proposed changes. See Attachment 2, Signed 2018-2021 DWAEA MOU.

The key elements of the MOU are as follows:

1. 80% of dependent coverage paid by DWA effective the first of the month following 30 days of employment. DWA will continue to pay 100% of employee-only coverages.

2. An optional short term disability buy-up plan will be offered to employees. Employees will pay 100% of the premium if they elect the increased benefit.

3. The longevity pay program will be discontinued. Employees currently receiving longevity pay will have that pay frozen at the current level and will not receive an increased benefit in the future.

4. Standby and Rest Time procedures have been updated.

5. An Alternative Work Schedule policy was negotiated and approved.

6. Cost of living adjustments (COLA) based upon March CPI with a maximum cap of 5% and a minimum of 0% effective July 1, 2018, July 1, 2019 and July 1, 2021.

    a. The March 2018 CPI was 3.9% and effective July 1, 2018 employees will receive a 3.9% COLA. See Attachment 3, Salary Schedule which reflects this increase.

7. Agency contribution to deferred compensation account for employees hired after May 1, 2007 increased from $130 to $135 per month, effective July 1, 2018 and will increase to $140/month on July 1, 2019 and $145/month on July 1, 2020.

8. A salary survey for benchmarked job classifications will be performed in 2019.

The increased benefit costs were included in the 2018-2019 Budget. The fiscal impact to the 2018/2019 fiscal year is as follows:

CPI Increase	$258,064
Deferred Compensation Increase	$1,800
Increase in benefit premium sharing	$136,606
Standby Pay	$96,984
Total impact of increases:	$493,454

Staff is requesting the Board approve and adopt the following documents:

1. 2018-2021 Memorandum of Understanding between the Desert Water Agency and the Desert Water Agency Employees' Association.

2. July 1, 2018 Desert Water Agency Salary Schedule

3. July 1, 2018 Desert Water Agency Management Salary Schedule

Attachments:
Attachment 1 –Minutes of April 30, 2018 Human Resources Committee Meeting
Attachment 2 – 2018-2021 DWA and DWAEA MOU
Attachment 3 – July 1, 2018 DWA Salary Schedule
Attachment 4 – July 1, 2018 Management Salary Schedule

Attachment 1

Minutes
Human Resources Committee Meeting
April 30, 2018

Directors Present: Craig Ewing, James Cioffi
Staff Present: Mark Krause, Steve Johnson, Martin Krieger, Kris Hopping

1. Discussion Items

   A. Review benefits offered to current DWA Employees
   The committee discussed the current benefit package offered to DWA employees and their dependents. It was agreed that there was a need to bring the DWA benefit package up to industry standard. This should result in an increase in employee retention and improvement in employee morale.

   B. Discuss DWAEA negotiations and proposed changes to benefits cost sharing
   After discussion, the Committee directed the General Manager to continue negotiations with the DWA Employees Association and authorized the proposed changes to the benefits package offered to current employees.

2. Other: None

3. Adjourn: 11:50 a.m.

Attachment 2

DESERT WATER

May 23, 2018

Desert Water Agency Employees' Association
Attn: Melchor Abubo - Chairman/DWAEA
1200 South Gene Autry Trail
Palm Springs, CA 92264

RE: **Employee Salaries and Fringe Benefits through June 30, 2021**

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, 2021, and I have received your written notice that the proposal was initially accepted by the DWA Employees' Association by a majority vote on May 15, 2018, and I was informed by Secretary CarolAnn Perez that the final negotiated terms of the MOU (as outlined below) were subsequently approved by a majority vote of the DWAEA on May 23, 2018.

This proposal has been approved by the Desert Water Agency Board of Directors at their regular meeting on June 5, 2018, and has a commencement date of July 1, 2018.

The specific terms negotiated and agreed upon are as follows:

1. The negotiated package would include the following:

   a. The Agency contracts with CalPERS for the 2.5% @ 55 retirement plan for Classic Members. Employees who are considered "classic members" with CalPERS will pay the full eight percent (8%) of the CalPERS Employee Contribution rate on a pretax basis.

   b. New members to CalPERS will pay a portion of the normal cost for the CalPERS 2% @ 62 plan. Employees currently pay 6.5% of the CalPERS Employee Contribution rate on a pretax basis. The employee share of the normal cost is subject change by CalPERS. The normal cost will be determined on an annual basis by a CalPERS Actuarial.

2. Commencing July 1, 2018, each Agency employee will receive a cost of living increase of 3.9% which is equal to the percent change for the year ending March 2018, 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.

3. Commencing July 1, 2019, each Agency employee will receive a cost of living increase equal to the percent change for the year ending March 2019, 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, 2020, each Agency employee will receive a cost of living increase equal to the percent change for the year ending March 2020, 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, 2018, the Agency monthly contribution to deferred compensation account for employees with two or more years of service hired after May 1, 2007 is increased to $135 per month.

   Effective July 1, 2019, the Agency monthly contribution to deferred compensation account for employees with two or more years of service hired after May 1, 2007 is increased to $140 per month.

   Effective July 1, 2020, the Agency monthly contribution to deferred compensation account for employees with two or more years of service hired after May 1, 2007 is increased to $145 per month.

6. Effective July 1, 2018, the Agency will pay 80% towards dependent medical, dental, and vision premiums for employees hired after May 1, 2007. Employees will pay 20% for dependent medical, dental, and vision coverage. The Agency will continue to pay 100% of the medical, dental, and vision premiums for employee only coverage.

7. A salary survey for benchmarked job classifications will be performed toward the end of 2019 and, with Board approval of any changes, have an implementation date of January 1, 2020.

8. A benefit survey will be performed during the month of March 2021.

9. Commencing in April 2021, 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, 2021.

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,

Mark Krause
General Manager

We agree to the above.
DESERT WATER AGENCY EMPLOYEES ASSOCIATION

5/31/18
Date

Chairman – Melchor Abubo

5/31/18
Date

Vice-Chairman – Heather Marcks

5/31/18
Date

Secretary – Carol Ann Perez

5/31/18
Date

Treasurer – Jonathan Arredondo

Attachment 3

DESERT WATER AGENCY

MONTHLY SALARY SCHEDULE

EFFECTIVE 7/1/18

MK 7/1/18

3.9% increase over 7/1/17 Salary Schedule

RANGE	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
17	2,389	2,509	2,634	2,765	2,903
18	3,216	3,378	3,549	3,728	3,918
19	3,299	3,464	3,640	3,824	4,018
20	3,378	3,549	3,728	3,918	4,108
21	3,464	3,640	3,824	4,018	4,220
22	3,549	3,728	3,918	4,108	4,324
23	3,640	3,824	4,018	4,220	4,429
24	3,728	3,918	4,108	4,324	4,537
25	3,824	4,018	4,220	4,429	4,657
26	3,918	4,108	4,324	4,537	4,771
27	4,018	4,220	4,429	4,657	4,892
28	4,108	4,324	4,537	4,771	5,011
29	4,220	4,429	4,657	4,892	5,143
30	4,324	4,537	4,771	5,011	5,266
31	4,429	4,657	4,892	5,143	5,398
32	4,537	4,771	5,011	5,266	5,530
33	4,657	4,892	5,143	5,398	5,671
34	4,771	5,011	5,266	5,530	5,815
35	4,892	5,143	5,398	5,671	5,957
36	5,011	5,266	5,530	5,815	6,106
37	5,143	5,398	5,671	5,957	6,259
38	5,266	5,530	5,815	6,106	6,409
39	5,398	5,671	5,957	6,259	6,575
40	5,530	5,815	6,106	6,409	6,743
41	5,671	5,957	6,259	6,575	6,909
42	5,815	6,106	6,409	6,743	7,084
43	5,957	6,259	6,575	6,909	7,259
44	6,106	6,409	6,743	7,084	7,439
45	6,259	6,575	6,909	7,259	7,629
46	6,409	6,743	7,084	7,439	7,818
47	6,575	6,909	7,259	7,629	8,007
48	6,743	7,084	7,439	7,818	8,211
49	6,909	7,259	7,629	8,007	8,409
50	7,084	7,439	7,818	8,211	8,620
51	7,259	7,629	8,007	8,409	8,826
52	7,439	7,818	8,211	8,620	9,055
53	7,629	8,007	8,409	8,826	9,273
54	7,818	8,211	8,620	9,055	9,504
55	8,007	8,409	8,826	9,273	9,739
56	8,211	8,620	9,055	9,504	9,983
57	8,409	8,826	9,273	9,739	10,229
58	8,620	9,055	9,504	9,983	10,481
59	8,826	9,273	9,739	10,229	10,740
60	9,055	9,504	9,983	10,481	11,004
61	9,273	9,739	10,229	10,740	11,286
62	9,504	9,983	10,481	11,004	11,562
63	9,739	10,229	10,740	11,286	11,857
64	9,983	10,481	11,004	11,562	12,156
65	10,229	10,740	11,286	11,857	12,459
66	10,481	11,004	11,562	12,156	12,768
67	10,740	11,286	11,857	12,459	13,087
68	11,004	11,562	12,156	12,768	13,412
69	11,286	11,857	12,459	13,087	13,749
70	11,562	12,156	12,768	13,412	14,079
71	11,857	12,459	13,087	13,749	14,437
72	12,156	12,768	13,412	14,079	14,786
73	12,459	13,087	13,749	14,437	15,157
74	12,768	13,412	14,079	14,786	15,521
75	13,087	13,749	14,437	15,157	15,911
76	13,412	14,079	14,786	15,521	16,300
77	13,749	14,437	15,157	15,911	16,705
78	14,079	14,786	15,521	16,300	17,115
79	14,437	15,157	15,911	16,705	17,540
80	14,786	15,521	16,300	17,115	17,967
81	15,157	15,911	16,705	17,540	18,421
82	15,521	16,300	17,115	17,967	18,868
83	15,911	16,705	17,540	18,421	19,340
84	16,300	17,115	17,967	18,868	19,812
85	16,705	17,540	18,421	19,340	20,308
86	17,115	17,967	18,868	19,812	20,802

Attachment 4

Desert Water Agency
2018 Management Salary Schedule

MANAGEMENT SALARY SCHEDULE (MONTHLY)					
EFFECTIVE 07/01/18					
POSITION	**Step 1**	**Step 2**	**Step 3**	**Step 4**	**Step 5**
General Manager	n/a	n/a	n/a	n/a	21,816
Assistant General Manager	15,911	16,705	17,540	18,421	19,340
Finance Director	15,157	15,911	16,705	17,540	18,421
Human Resources Manager	10,481	11,004	11,562	12,156	12,768

Salary schedule reflects 3.9% Cost of Living Adjustment.

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

JUNE 5, 2018

RE: REQUEST APPROVAL TO EXECUTE AGREEMENT FOR CONTRIBUTION OF MONEY TO THE DEPARTMENT OF WATER RESOURCES FOR PRECONSTRUCTION PLANNING COSTS OF THE CALIFORNIA WATERFIX

On December 23, 2012, Desert Water Agency received from the Department of Water Resources (DWR) the Final Supplemental Funding Agreement for the Delta Habitat Conservation & Conveyance Program (DHCCP).

The Agency's share of the additional $50 million contributed by the State Water Contractors (SWC) was $701,689. The previous funding agreement, which was for a total of $140 million with $70 million being collected from SWC, provided that the Agency's share was $865,163. The Agency combined total authorized commitment was $1,566,852. This payment has been made in full.

Attached is a proposed agreement to provide additional funding until such time as bonds are sold to finance the project. DWR is requesting funding from the SWC's for permitting, geotechnical and design of the California Water Fix. This agreement is otherwise known as the "Gap Funding Agreement". These funds will provide start-up money prior to the issuance of bonds by DWR and the Finance JPA. The necessary funding is $133 Million for the first two years of the project. Beginning January 2019 the Agency is being asked to make 12 monthly payments of approximately $50,778 each for a total annual payment of $609,334. DWR will invoice each Contractor through its Statement of Charges (SOC's).

Exhibit B of the attached agreement indicates the Contractors that are participating in the GAP Funding. Not all Contractors are expected to participate, particularly those Contractors north of the Delta. Just as with prior supplemental funding, some south of Delta Contractors also will not be participating. DWR is expected to temporarily make up for the shortfall in funding. Once bonds are issued, all the DHCCP Supplemental Funding and Gap Funding will be paid back to the Agency with bond sale proceeds. The Gap Funding costs ultimately will be paid by the participating Contractors through payments of the bonds issued to fund the Cal WaterFix. These payments will be invoiced through DWR's SOC's to each participating Contractor.

It should be noted that unspent funds will be returned to the contributing Contractors. Each Contractor recognizes that if Cal WaterFix does not proceed to construction, no reimbursement of monies will occur except for unspent funds.

Thus far, the Agency has invested $1.6 Million in support of the Cal WaterFix (formerly the BHCCP). The Agency is reliant on imported water supplies to meet existing water demands and will use the increased reliability of the State Water Project to meet existing and future water supply demands and be sustainable.

Staff recommends Board approval to execute an agreement to contribute $609,934 to the Department of Water Resources for the preconstruction planning cost of the California WaterFix.

State of California
California Natural Resources Agency
DEPARTMENT OF WATER RESOURCES

AGREEMENT FOR THE ADVANCE OR CONTRIBUTION OF MONEY TO THE DEPARTMENT OF WATER RESOURCES BY [CONTRACTOR]

FOR PRECONSTRUCTION PLANNING COSTS OF THE CALIFORNIA WATERFIX, A FACILITY OF THE STATE WATER PROJECT

(SWPAO #_____)

THIS AGREEMENT is made, pursuant to the provisions of all applicable laws of the State of California, between the State of California, acting by and through its Department of Water Resources ("Department" or "DWR"), and [*contractor*] (the "Contractor"), each herein referred to individually as a "Party" and collectively as the "Parties".

Recitals

WHEREAS, DWR and the Contractor listed on the signature pages hereto has entered into and subsequently amended a long-term water supply contract, herein referred to as a "Water Supply Contract," providing that DWR will supply certain quantities of water to the Contractor, providing that Contractor shall make certain payments to DWR, and setting forth the terms and conditions of such supply and such payments; and

WHEREAS, the Bay Delta Conservation Plan ("BDCP") process was initiated in 2005-2006 and the Delta Habitat Conservation and Conveyance Program ("DHCCP") was initiated in 2008; and

WHEREAS, the Bay Delta Conservation Plan ("BDCP") and ("DHCCP") resulted in development of a project known as the California Waterfix ("WaterFix"); and

WHEREAS, Certain Contractors have entered into that certain Joint Powers Agreement dated May 14, 2018 forming the Delta Conveyance Design and Construction Authority ("DCA"); and

WHEREAS, DWR and DCA have entered into that certain Joint Powers Agreement ("JEPA"), dated May 17, 2018, which provides for the design and construction of WaterFix by the DCA under the supervision of DWR; and

WHEREAS, DWR has developed a budget, attached hereto as Exhibit A, for certain preconstruction planning activities identified on Exhibit A; and

WHEREAS, Exhibit B sets forth shares of the preconstruction planning activity costs shown on Exhibit A opposite the names of certain Contractors, including the undersigned Contractor, which will be made by each such Contractor upon its approval and execution of an agreement similar to this Agreement; and

WHEREAS, the undersigned Contractor desires to, and is authorized to, advance or contribute a share of preconstruction planning activity costs in the amount specified for the undersigned Contractor on Exhibit B hereto; and

WHEREAS, Exhibit B also sets forth an additional advance or contribution to be made by the Department for the purposes set forth in this Agreement; and

WHEREAS, a State Agency may advance or contribute funds to DWR for SWP purposes pursuant to Water Code section 11135 and (ii) DWR may accept such advanced or contributed funds and thereafter use such funds in accordance with the terms of this Agreement pursuant to Water Code section 11141.

AGREEMENT

NOW, THEREFORE, it is mutually agreed by the Parties as follows:

1. When used in this Agreement, the definitions in the Water Supply Contract (as defined herein) shall apply. In addition, the following definitions shall apply:

    a. "**Calendar Year**" means the period January 1 through December 31.

    b. "**Contractor**" means a State Agency as defined in Water Code section 11102 that is a party to a Water Supply Contract with DWR.

    c. "**Department**" or "**DWR**" means the California Department of Water Resources.

    d. "**Pay-Go Charge**" means the amount set forth opposite Contractor's name on Exhibit B to be paid by Contractor pursuant to this Agreement.

    e. "**Party**" or "**Parties**" means the DWR, an undersigned Contractor, or all signatories to this Agreement.

    f. "**State Agency**" has the meaning ascribed to it by Water Code section 11102.

    g. "**SWP**" or "**State Water Project**" means the State Water Project operated by DWR. The SWP generally includes the State Water Facilities, as defined in

California Water Code section 12934(d), and certain facilities authorized by the Central Valley Project Act at section 11100 *et. seq*.

h. "**Water Supply Contract**" means the long-term water supply contract, as amended and as may be amended in the future, between a Contractor and DWR.

2. Purposes of Agreement. The purposes of this Agreement are to establish (i) the terms and conditions under which the undersigned Contractor will advance or contribute money to DWR and (ii) the purposes for which DWR will expend the money so advanced or contributed.

3. Budget. Exhibit A to this Agreement is a budget ("Budget") herein incorporated by this reference, for certain preconstruction planning activities related to the WaterFix.

4. Charge Procedure. Contractor shall pay its Pay-Go Charge to DWR in equal monthly installments over a period of 12 months beginning January 1, 2019. The initial amount of each Contractor's monthly installment is equal to the Pay-Go Charge divided by 12. Contractor's agreement to pay the Pay-Go Charge is not contingent upon the agreement of any other Contractor to pay the Pay-Go Charge and Contractor agrees to pay the Pay-Go Charge whether any other Contractor enters into an agreement with DWR similar to this Agreement. The failure of any other Contractor to make a payment under an agreement similar to this one shall not relieve the undersigned Contractor of its obligation to pay the Pay-Go Charge. If Exhibit B is amended by the Parties hereto, the amount of each monthly installment shall be adjusted such that any resulting change in a Contractor's Pay-Go Charge is distributed evenly across the then remaining monthly installments, unless a different treatment is requested in writing by Contractor and agreed to in writing by DWR. The amount(s) computed pursuant to this section 4 will be included in the Contractor's Annual Statement of Charges for calendar year 2019, or a subsequently issued revision thereof, under the Transportation Minimum Component section of the statement. The payments described in this section 4 may terminate prior to the end of 12 months pursuant to the terms of section 10 hereof.

5. Amendment of Exhibits. Exhibit A may be amended by the Department at any time. If DWR amends Exhibit A it will provide notice to Contractor as soon as practicable after its adoption by the Department. Exhibit B may only be amended, and either the amount or terms of a Contractor's advance or contribution be changed as a result thereof, by the written agreement of DWR and Contractor.

6. Planning and Execution. DWR agrees to expend the funds advanced or contributed pursuant to this Agreement for the payment of invoices received by DWR from the DCA in accordance with the JEPA and Exhibit A. Notwithstanding anything to the contrary in this Agreement or the JEPA, DWR's financial liability for the payment of JPA invoices issued to DWR shall be limited to the amount of money actually received by DWR pursuant to this Agreement.

7. Reporting. DWR, through its SWPAO, shall annually prepare a report summarizing the advances or contributions received, and expenditures made pursuant to, this Agreement. The first such report shall be completed not later than January 31, 2020.

8. Unspent Funds. Upon termination of this Agreement, it is the intent of the Parties that any remaining unspent funds after payment of all JPA invoices submitted for work within the scope of Exhibit A, shall be returned to Contractor in proportion to its percentage share of advances or contributions made by all Contractors that entered into Agreements similar to this Agreement. Notwithstanding the foregoing, Contractor recognizes that funds contributed under this Agreement may not be returned, credited or reimbursed for reasons including but not limited to, a determination by DWR in its sole discretion that the return, credit or reimbursement is inconsistent with applicable law or applicable contractual obligations of DWR, or the inability of the Parties to negotiate and execute such further agreements as may be necessary to accomplish such return, credit or reimbursement on terms acceptable to DWR.

9. Status of Project and Funds. Each Contractor recognizes that WaterFix may not proceed to construction. If WaterFix does not proceed to construction, no reimbursements of money advanced or contributed to DWR pursuant to this Agreement will occur, except for unspent funds as provided in section 8 of this Agreement. Contractor waives any claims it may have of any nature whatsoever relating to or arising from payment or nonpayment of DCA invoices by DWR in accordance with this Agreement. Nothing in this Agreement imposes any duty or obligation either expressly or by implication on DWR other than the duty to pay DCA invoices submitted to DWR during the term of this Agreement in accordance with the terms of this Agreement, the JEPA and for the activities described on Exhibit A hereto if, as and when money has been received by DWR under this Agreement and other similar agreements or arrangements with other Contractors for purposes identical to those described herein and is available for the payment thereof. If WaterFix is not constructed the Contractor will not be responsible for any monies expended by DWR as set forth in Exhibit B.

10. Effective Date and Term. This Agreement shall become effective on the date the last Party hereto signs the Agreement as set forth on the signature pages hereto ("Effective Date"), and shall continue in effect until December 31, 2019 or upon receipt by the Department of the Contractor's full Pay-Go Charge whichever is later. Contractor's obligation to make monthly payments under this Agreement may terminate before all 12 monthly installment payments have been made in the event that either (i) the Department or a joint powers authority consisting of at least two Contractors (a "Finance JPA") issues and sells revenue bonds for the purpose of funding CA WaterFix and (ii) the proceeds of such sale have been received by the Department or, in the event Finance JPA does not purchase DWR revenue bonds, an agreement is in place between the Department and such Finance JPA to provide the proceeds to the Department and (iii) the Department, the Parties hereto and the Finance JPA, if applicable, agree in writing that one purpose of such bond issuance and sale is to supersede the payments provided for by this Agreement.

11. Reimbursement of Contributed Funds. It is the intent of the Parties hereto that the funds contributed pursuant to this Agreement be reimbursed or credited to each Party according to the relative amount each such Party paid pursuant to this Agreement, upon the issuance and sale of revenue bonds by either the Department or Finance JPA, whichever occurs earlier, for the purpose of, among other things, funding WaterFix. The Department shall be under no obligation to issue and sell bonds for the purpose(s) described in the foregoing sentence or to undertake any reimbursement or credit as so described, unless a determination is first made by DWR in its sole discretion that such issuance and sale of revenue bonds, such reimbursement, or such credit as applicable is consistent with applicable law, applicable judicial rulings, and applicable contractual obligations of DWR, and the Parties have negotiated and executed such further agreements as may be necessary to accomplish such reimbursement, credit or reimbursement on terms acceptable to DWR.

12. Invoices, Notices or Other Communications. All invoices, notices, or other communications required under this Agreement will be in writing, and will be deemed to have been duly given upon the date of service, if: (i) served personally on the Party to whom notice is to be given; (ii) sent by electronic mail, and the Party to whom notice is to be given confirms receipt; or (iii) on the third day after mailing, if mailed to the Party to whom invoice, notice or other communication is directed, by first-class mail, postage prepaid, and properly addressed to the designated representative(s) of the Party set forth below.

DWR:

Chief, State Water Project Analysis Office
Department of Water Resources
State Water Project Analysis Office
Department of Water Resources
1416 Ninth Street, Room 1620
Post Office Box 94236
Sacramento, California 94236-0001

Copy to
Gary Lippner
Deputy Director, Delta Conveyance Office
Department of Water Resources
901 P Street, Room 413
Sacramento, California 94236-0001

Contractor:

[*Contractor Name and Address*]

13. No Delegation of Authority. Nothing in this Agreement constitutes a delegation by any Party of its existing authority to make any decision it is mandated to make. Nothing in this Agreement shall limit DWR's final decision-making authority at the time of consideration of WaterFix related approvals. All provisions of this Agreement are

intended and will be interpreted to be consistent with all applicable provisions of State and federal law. The undersigned recognize that the signatories are public agencies and have specific statutory responsibilities, and that actions of these public agencies must be consistent with applicable procedural and substantive requirements of State and federal law. Nothing in this Agreement is intended to, nor will have the effect of, constraining or limiting any public entity in carrying out its statutory responsibilities or requiring an agency to take any action inconsistent with applicable law. Nothing in this Agreement constitutes an admission by any party as to the proper interpretation of any provision of law, nor will it have the effect of, waiving or limiting any public entity's rights and remedies under applicable law. Except as expressly set forth above, execution of this Agreement does not constitute a waiver by any signatory of any rights or remedy it may have, nor does execution constitute pre-approval of any project or preferred project alternative, or waive or otherwise abridge responsible trustee duties required, or discretion authorized, under State and federal law.

14. Amendment. Except as otherwise set forth above, this Agreement may only be amended or modified by a subsequent written agreement approved and executed by all of the Parties.

15. Applicable Law. This Agreement will be construed under and will be deemed to be governed by the laws of the United States and the State of California.

16. Integration. This Agreement constitutes the sole, final, complete, exclusive and integrated expression and statement of the terms of this Agreement among the Parties concerning the subject matter, and supersedes all prior negotiations, representations or agreement, either oral or written, that may be related to the subject matter of this Agreement.

17. Counterparts. This Agreement may be executed in counterpart, each of which shall constitute an original, but all of which shall constitute one and the same agreement. Each signing Party shall have received a copy of the signature page signed by every other Party.

Exhibits attached and incorporated herein:
Exhibit A Budget
Exhibit B Pay-Go Charge and Other Funding

IN WITNESS WHEREOF, the Parties hereto, by their authorized representatives, have executed this Agreement on the date(s) set forth below.

Approved as to Legal Form
and Sufficiency

_____
Spencer Kenner
Chief Counsel

_____
Date

State of California
Department of Water Resources

_____
Karla Nemeth
Director

_____
Date

Approved as to Legal Form
and Sufficiency

_____
Name

_____
Title

_____
Date

[Contractor]

_____
Name

_____
Title

_____
Date

Exhibit A
Budget
[For July 2018 – July 2019]

00013458.Version%

EXHIBIT A - 2018/2019 CWF Budget Spending Plan

Description	2018-Q3	2018-Q4	2019-Q1	2019-Q2	Total
Staffing & Planning	4,904,208	11,383,016	17,304,411	26,244,540	59,836,175
Design & Construction	1,805,712	17,040,351	14,117,514	27,194,999	60,158,576
Contingency	1,095,602	2,739,005	4,108,508	5,751,911	13,695,025
Total	7,805,522	31,162,372	35,530,433	59,191,450	133,689,776

All amounts rounded to the nearest dollar.

Exhibit B

	Agency	Pay-Go Charge or Commitment
1	City of Yuba City	$ -
2	Solano County Water Agency	$ -
3	Napa County Flood Control and Water Conservation District	$ -
4	Alameda County Flood Control and Water Conservation District Zone 7	$ 250,000.00
5	Alameda County Water District	$ 459,050.00
6	Santa Clara Valley Water District	$ 1,092,975.00
7	Tulare Lake Basin Water Storage District	$ -
8	County of Kings	$ -
9	Dudley Ridge Water District	$ -
10	Empire West Side Irrigation District	$ -
11	Oak Flat Water District	$ -
12	Kern County Water Agency	$ 6,229,514.00
13	San Luis Obispo County Flood Control and Water Conservation District	$ 273,244.00
14	Santa Barbara County Flood Control and Water Conservation District (Ce	$ 497,151.00
15	Metropolitan Water District of Southern California	$ 86,117,793.00
16	Ventura County Watershed Protection District	$ 218,595.00
17	Santa Clarita Valley Water Agency	$ 1,040,513.00
18	Antelope Valley-East Kern Water Agency	$ 1,583,110.00
19	Coachella Valley Water District	$ 1,512,132.00
20	Crestline-Lake Arrowhead Water Agency	$ 63,392.00
21	Desert Water Agency	$ 609,334.00
22	Mojave Water Agency	$ 981,492.00
23	Palmdale Water District	$ 232,804.00
24	San Bernardino Valley Municipal Water District	$ 10,000,000.00
25	San Gorgonio Pass Water Agency	$ 189,085.00
26	Littlerock Creek Irrigation District	$ -
27	San Gabriel Valley Municipal Water District	$ -
28	County of Butte	$ -
29	Plumas County Flood Control and Water Conservation District	$ -
	DWR	$ 22,339,593.00
	Total:	**$ 133,689,777.00**

STAFF REPORT

TO

DESERT WATER AGENCY

BOARD OF DIRECTORS

JUNE 5, 2018

RE: REQUEST APPROVAL AUTHORIZING GENERAL MANAGER TO PARTICIPATE WITH THE SAN GORGONIO PASS GSA AND VERBENIA GSA TO PRODUCE ONE GROUNDWATER SUSTAINABILITY PLAN FOR THE SAN GORGONIO SUBBASIN

Three months ago, the Groundwater Sustainability Agencies (GSA's) overlying the San Gorgonio Pass Ground Water Sub-basin (SGP-SB) applied for grant funding. The San Gorgonio Pass Water Agency (SGPWA) applied for the grant on behalf of all the GSA's. The grant money is intended to fund the installation of monitoring wells at three new monitoring sites for inter-basin monitoring (San Gorgonio Pass Sub-basin and Indio Sub-basin) to support understanding of inter-basin sub-flows in areas containing severely disadvantaged communities. Additionally, secure funding to develop a robust Groundwater Sustainability Plan (GSP) for the SGP-SB, in coordination with all GSA's in the Sub-basin, and to minimize the associated fiscal impacts on Disadvantaged Communities (DACs), Severely Disadvantaged Communities (SDACs) and Economically Disadvantaged Area (EDAs) in the Sub-basin.

On April 4, 2018, DWR announced the final awards to 78 grant applicants totaling $85.8 million for the SGWP Grant Program Solicitation. The San Gorgonio Pass groundwater sub-basin GSA's were awarded $2,000,000. Half of the grant funding will go to the installation of the monitoring wells and the other half to developing a groundwater sustainability plan. There will not be any matching funding required due to the DAC's served in this sub-basin.

As the SGP Sub-basin GSA's move forward on implementation of the Sustainable Groundwater Management Act (SGMA), decisions will have to be made by their elected bodies. There can only be one point of contact between DWR and the Sub-basin GSA's. The three GSA's within the sub-basin have appointed the San Gorgonio Pass Water Agency as the current point of contact. A notice has been filed with DWR of the intent to begin the groundwater sustainability plan (GSP). The point of contact can be changed to another local agency participating as a GSA's at any time with the agreement of the other local agencies.

Staff of the participating local agencies must provide authorization to DWR to have all three GSA's in the San Gorgonio Pass sub-basin work together to produce just one GSP.

It is anticipated that, before the end of the year, staff will bring to the Board other GSA issues, including cost-sharing agreements, by-laws, and contracting with consultants. As an alternative, the Board could choose to authorize staff to deal with some of these issues so that each one would not have to be brought to the Board for action.

Staff recommends authorization be given to the General Manager authorizing the Desert Water Agency GSA to participate with the San Gorgonio Pass GSA and the Verbenia GSA to produce a single Groundwater Sustainability Plan (GSP) for the San Gorgonio Pass Groundwater Sub-basin.

BEST BEST & KRIEGER
ATTORNEYS AT LAW

8-B

May 17, 2018

MEMORANDUM

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

FROM: BEST BEST & KRIEGER LLP

RE: MAY 17, 2018 ANNUAL MEMBERSHIP AND MONTHLY BOARD MEETING OF THE STATE WATER CONTRACTORS, INC.

The Annual membership meeting of the State Water Contractors was conducted on May 17, 2018 at the Tsakopoulos Library Galleria in downtown Sacramento, and was immediately followed by the monthly meeting of the Board of Directors of the State Water Contractors.

1. SWC Annual Membership Meeting. The annual membership meeting was called to order. The first item of business was to elect Board members for the upcoming year. They are Phil Miller of Napa County Flood Control and Water Conservation District; Valerie Prior of Alameda County Flood Control and Water Conservation District; Mark Gilkey of Tulare Lake Basin Water Storage District; Curtis Creel of Kern County Water Agency; Ray Stokes of the Central Coast Water Authority; Steve Arakawa of Metropolitan Water District of Southern California; Matt Stone of Santa Clarita Valley Water Agency; Doug Headrick of San Bernardino Valley Municipal Water District; and Tom Murphy of Mojave Water Agency.

A report was provided on business objectives that had been addressed for this past year, and suggested objectives for the upcoming year. During the past year, in the category of business objectives, the SWC worked on standardizing reports from DWR; long term SWP reporting strategies; negotiating the State Water Contract Extension Amendment language; the California WaterFix Amendment negotiations; resolving a protest item related to the Springing Amendment; and addressing other outstanding protest items. For the upcoming year, the Business Objectives will remain exactly the same.

In the category of Energy Objectives, the focus has been on completing the strategic plan to get ahead of the "curve" on energy costs which have been increasing the rate of approximately ten percent per year; coordinating with participants on the Energy Committee and in energy trade associations; and participating with DWR in the Oroville relicensing efforts.

In the category of Infrastructure Reliability Objectives, the focus for the year included work to repair the Oroville spillway, to restore its functionality to at least limited capacity; completing the repair of the Perris Dam; working on subsidence issues affecting the California Aqueduct, which included completion of the Phase One report and raising the liner at some locations; and repair of Unit No. 1 at the Hyatt hydropower facility. Objectives for the upcoming year remain the same but are revised to combine individual dam repair objectives; completing the restoration of the Oroville spillway and conducting a "needs assessment;" and adding "resiliency" to the existing SWP seismic objectives.

In the category of Water Supply Objectives, the focus for the year has included work on California WaterFix, including adoption of the Notice of Determination under CEQA; completing Part One of the proceedings before the State Water Resources Control Board on the application to change the point of diversion; formation of joint powers authorities to handle construction and financing of the tunnel project; participation in voluntary settlement agreement discussions on the Delta Water Quality Control Plan; facilitating water transfers for the 2018 dry year water transfer program and Yuba Accord arrangements; work on coordinating with DWR on water supply operations; and work on the Collaborative Adaptive Management Team, including Suisun Marsh salinity control adaptive management plan and a comprehensive monitoring plan for the Delta. The objectives for the upcoming year remain largely the same, including completion of the formation of the joint powers authorities for California WaterFix and continued work on a voluntary settlement agreement for the Delta Water Quality Control Plan.

2. SWC Board Officers. Following conclusion of the annual membership meeting, the monthly Board meeting of the SWC Board of Directors was convened. The first item of business was to elect officers for the upcoming year. Steve Arakawa of Metropolitan Water District was elevated to the position of President of the Board of Directors; Matt Stone was elevated to the position of Vice President of the Board of Directors; and Valerie Pryor was selected as Secretary/Treasurer of the Board of Directors.

3. DWR Management Report. Deputy Director Joel Ledesma was present to provide a DWR management report. He stated that the release gates at Lake Oroville had been closed so that further remedial work could begin on the spillway. The day prior to the meeting, blasting had already begun on the upper chutes of the spillway, with a plan to replace the upper 730 feet of the spillway closest to the dam. The contractor will also check out the drains and the anchors on the spillway. Ledesma stated that more work will be performed on the spillway this summer than was performed last summer, and that the timeline for completing the work is very compact. The contractor will be pouring 50% more structural concrete this summer than was installed last summer. He stated that DWR will also be repairing the liner in the California Aqueduct at milestones 62 and 65. That work is scheduled for completion in June. He also expressed appreciation to the State Water Contractors for their support of the request by DWR to add new positions. DWR will be meeting with the SWC to discuss reorganization of the Department. Many of the new positions will in the Division of Engineering. In 2016 – 2017, the Division of Engineering let out 18 contracts. But in 2017 – 2018, a total of 27 contracts were let, largely due to the work being performed at the Oroville spillway. He said that urgent projects in the future will focus largely on the dams, and that DWR needs to dedicate some portion of its work force to dam safety and stability.

4. Water Supply Report. As of the date of the meeting, a total of 2.45 million acre feet of water was in storage in Oroville. Maximum storage under this year's operations plan had peaked and 2.47 million acre feet on May 9. However, the lake level was slowly descending as releases were exceeding inflows. Releases from Oroville were at the rate of 1,050 cubic feet per second, which was projected to continue. There was no significant precipitation in the forecast, and below normal precipitation was experienced in May. DWR was diverting water from the Delta at the rate of 1,200 cubic feet per second. It was reported that DWR would be finalizing its water supply study and presenting the results to the Water Operations Committee the following Monday, with some possibility of an increase in the allocation. (The allocation was thereafter increased from 30% to 35% for the current year.)

5. General Manager's Report. Jennifer Pierre reported that DWR has confirmed that $160 million of repair work required for the Oroville Spillway will be billed in the Delta Water Rate. However, DWR wants to keep those charges suspended until the Water

Supply Contract extension amendment is executed, so that the expenses can be paid with proceeds of bonds to be issued, and thus the expenses can be amortized over forty years. Jennifer also reported that the Yolo Bypass improvements required by one of the biological opinions was moving forward, with stakeholder outreach underway.

Jennifer also reported that the State and Federal projects were fortunate to have salvaged only one Delta smelt at the pumps this year, and that if four smelts had been salvaged it would have become a major issue affecting diversions. She reported that a pilot study is underway to perform "environmental DNA sampling" on the Middle River in front of the Central Valley Project export facility. DNA sampling of the water can detect the presence of Delta smelt without having to salvage a single fish. It is an exciting new technology that may allow DWR to operate its pumps in a manner that avoids the salvage of fish altogether. Salvaged fish can trigger curtailments in pumping.

Michael T. Riddell

State Water Project Objectives for FY 2018-2019

	Objective	Description	Priority	SWC Assignment
Energy Operations	Strategic SWP Power and Transmission plan	Participate in and provide policy, strategic, technical, communications, and advocacy support to the DWR Risk Oversight Committee analysis and implementation of the SWC Energy Strategic Plan recommendations	●	Haines
	Near-term Risk Management	Analyze reports from DWR Power and Risk Office, Operations Control Office, SWP Analysis Office and provide input to align policies and practices with SWC risk tolerance	●	Haines
	Greenhouse Gas/Renewables Policies	Advise DWR on greenhouse gas and renewables policies and purchases to incorporate SWC rate concerns	◉	Haines
	FERC Relicense Settlement	Advocate solutions related to obtaining new license for the Oroville complex consistent with the Settlement agreement and Habitat Expansion Agreement. Monitor relicensing activities associated with SoCal facilities	◉	Haines
	Defend SWP against Energy Liabilities and Claims	Assure proper legal representation for energy matters before FERC, CAISO, and utilities	○	Haines
Infrastructure	Oroville Dam Spillway Restoration and Comprehensive Needs Assessment	Track progress, cost, and operations impact related to the restoration of the Oroville Dam spillway following the February 2017 erosion event. In addition, track progress, costs, and follow-up projects/studies related to the new Comprehensive Needs Assessment for the entire Oroville facility.	●	Chapman
	SWP Dam Safety	Track progress, cost, and operations impact for all SWP Dam safety related activities. Concentrated focus in FY 2018-2019 will be on Sisk Dam Seismic Stability, Perris Dam outlet and emergency release channel, Castaic Dam outlet tower/spillway/abutment, and any new dam safety related activities in FY 2018-2019.	●	Chapman
	Aqueduct Subsidence, Liner Integrity, and SWP Capacity Retention/Reliability	Work with DWR in determining the quantity, rate, and capacity reduction impacts of subsidence in the San Joaquin Valley. Target projects/repairs to assure capacity is restored or preserved to assure long-term operational reliability	●	Chapman
	SWP Seismic Vulnerability & Resiliency	Work with DWR and member agencies on studies to assess the seismic vulnerability of the SWP and begin planning/preparing for realistic response and recovery	●	Chapman
	Edmonston Pump Replacement/Refurb	Track performance/efficiency of four new units. Work with DWR in the value engineering process to select action (replacement vs. refurbishment) for aging east wing units	◉	Chapman
	SWP Asset Management	Work with DWR as they develop/document/implement an asset management system and capital improvement program including assessing vulnerabilities, the required risk mitigation strategies and management policy and objectives	◉	Chapman
	Hyatt Unit 1,3,5 new runners, bearings, TSV refurb	Track progress, cost, and operation impact for the replacement of new runners and bearings for units 1, 3, 5 to restore reliability and eliminate high down-thrust loads	◉	Chapman
	Thermalito Plant Post-fire rebuild	Track the progress, cost, and operation impact related to the restoration and modernization of the Thermalito plant	◉	Chapman
	Control System Upgrade	Track progress, cost, schedule on the implementation of phase IV of the control system upgrade, which involves upgrading SWP plants south of the Delta	○	Chapman
	Fire System Modernization	Track the design and implementation of DWR's new corrective measures and proactive fire systems to increase personnel safety and prevent catastrophic fires in SWP facilities	○	Chapman

State Water Project Objectives for FY 2018-2019

	Objective	Description	Priority	SWC Assignment
	Motor/Generator/Valve Rehab/Replacements	Track progress, cost, and schedule and operational impact of motor, generator, and major valve replacements or refurbishments within SWP plants (long-term, routine task)	○	Chapman
Business Processes	Budgets	Monitor and promote DWR's development and management of a SWP budget to minimize annual variances and optimize reasonable revenue requirements	●	Ramsay/Lightle
	Financial Projections	Monitor and promote DWR's analysis, development and management of SWP's cost trends to maximize operational readiness at an optimal cost level ensuring long-term affordability	●	Ramsay/Lightle
	Financial Resources, Revenue Requirements, and Investments	Monitor and assess DWR's State Water Project financial performance with regard to operational goals, budgets, financial targets, and forecasts to maximize use of available revenues and optimize determination of revenue requirement	●	Ramsay/Lightle
	SWRDS Capital Development and Investment in Capital Infrastructure	Monitor and assess DWR's State Water Project capital infrastructure goals, budgets, financial targets, and forecasts to maximize debt financing and investment ensuring stable and level capital revenue requirements	◉	Ramsay/Lightle
	Business Process Control Activities and Environment	Monitor and promote DWR's internal control directives, activities and environment to minimize financial risk, ensure financial integrity and maintain reporting reliability	◉	Ramsay/Lightle
	Cash-flow	Monitor and promote DWR's development and management of a SWP cash-flow statement(s) and business process to ensure short-term and long-term SWP cash availability regardless of project purpose	○	Ramsay/Lightle
Water Supply	California WaterFix	Proceed with Implementation Activities including SWRCB Change Petition, support set-up of the Finance and Construction JPAs, and engage on various lawsuits	●	Pierre/Morris
	Water Management Contract Amendment	Coordinate SWP Contractors involvement in Contract Amendment discussions on California WaterFix Cost Allocation and Water Management Activities	●	Pierre/Morris
	Coordinated Operations Agreement	Coordinate with DWR and SWC members in developing information for and participating in discussions of the COA periodic review	●	Febbo
	Long-term Operations Reconsultation	Participate in the CVP/SWP Long-term Operations reconsultation process for development of near-term project operations and associated biological opinions	●	Febbo/Pierre
	State Water Resource Control Board Activities	Present testimony and participate in hearings on updating the Bay-Delta Water Quality Control Plan and related activities such as San Joaquin River water rights and illegal diversions; and participate in Voluntary Settlement Agreement discussions	●	Morris
	Delta Plan	Coordinate with DSC staff and board to ensure revisions to the Delta Plan are consistent with SWC planning and operations	●	Pierre/Morris
	Facilitate Water Transfers	Work with DWR and potential sellers in the Sacramento Valley to implement dry year transfers when conditions warrant. Work with DWR to improve flexibility of Table A water transfers	◉	Chapman
	Upstream Water Supply Augmentation	Work with CVP Contractors and upstream water users to identify water supply operations to address existing and potential regulatory obligations	◉	Febbo
	Delta Levee Strategy	Work with MWD and DWR in identifying and evaluating alternative approaches for levee improvements to project SWP water supplies	◉	Pierre

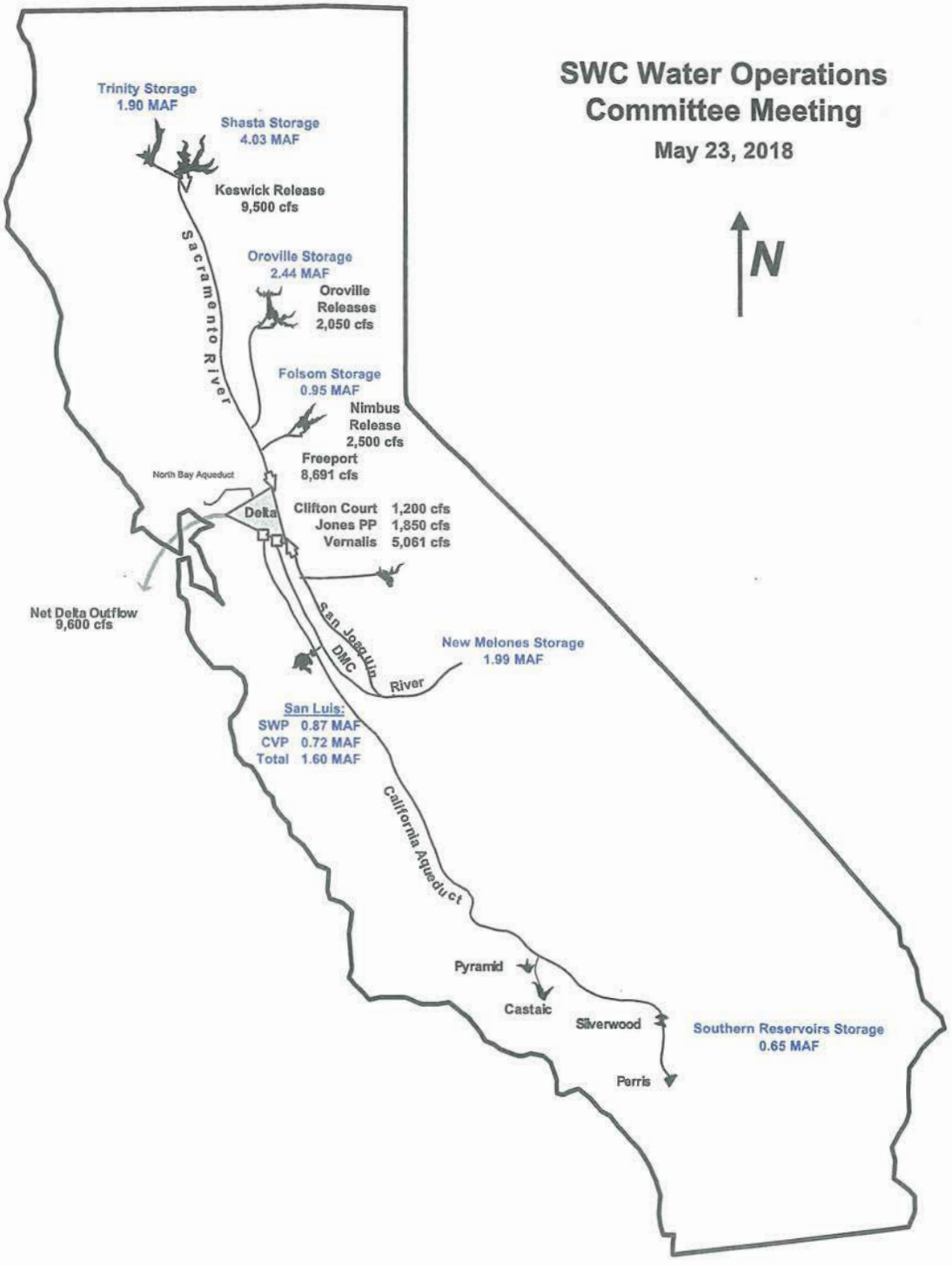
State Water Project Objectives for FY 2018-2019

	Objective	Description	Priority	SWC Assignment
Water Supply	OCAP and Regulatory Compliance	Collaborate with DWR to improve Delta Compliance Committee to facilitate planning and implementation of required habitat and other RPAs under OCAP Biological Opinions	◉	Febbo
	Water Operations Improvements	Identify and implement Delta and/or upstream operations strategies to minimize reductions to near term exports and increase water supply reliability using existing facilities or with additional features	◉	Febbo
	Water Operations Evaluation	Develop documentation for ongoing Delta water supply operations including water losses from regulatory actions. Develop analysis tool to evaluate water supply and predict water supply allocations during the runoff season	◉	Febbo
	Delta Related Litigation	Defend or intervene in litigation to protect SWP water supply. Pursue methods for State Water Resources Control Board to protect stored water through curtailments and participate in litigation and administrative proceedings that could impact stored water. Continue challenging the CEQA and authority of the Delta Stewardship Council to implement certain Delta Plan activities	◉	Morris
	Collaborative Adaptive Management Team	Participate in Collaborative Adaptive Management Team through membership on CAMT, identification and formulation of study projects and involvement in work efforts of scoping teams; define and fund key scientific investments in collaboration	◉	Pierre
	Wastewater Discharge and Water Quality Issues	Follow-up on remaining litigation efforts related to Sacramento Regional CSD discharge permits. Participate in development and review of discharge standards for other Delta Watershed dischargers. Participate in processes related to methylmercury regulations	○	Morris

● Priority I (Highest Priority) Objectives
◉ Priority II (High Priority) Objectives
○ Priority III (Medium Priority) Objectives

SWC Water Operations Committee Meeting

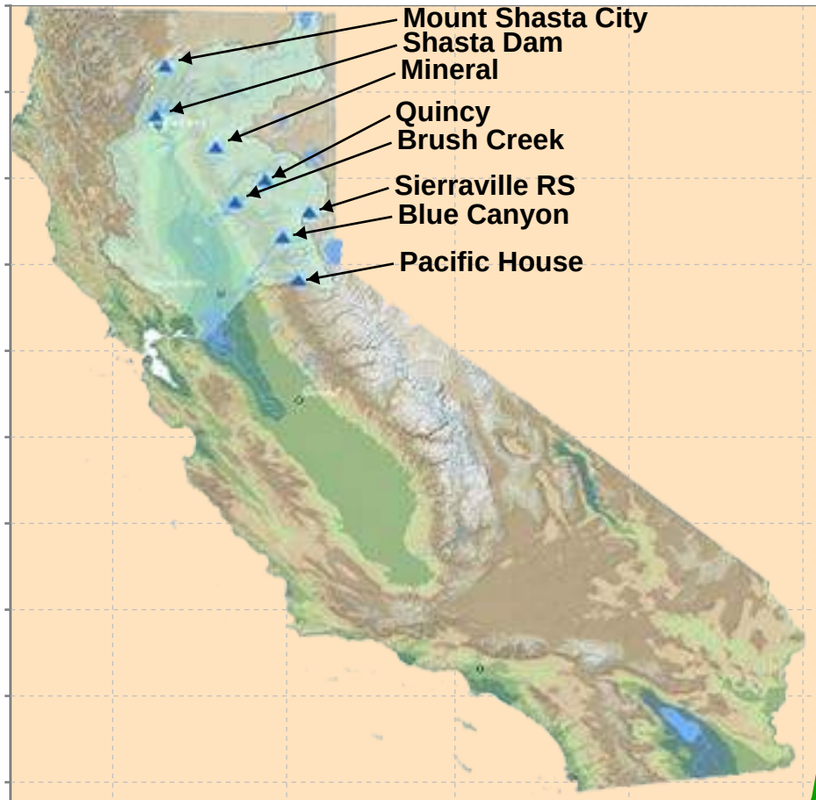
May 23, 2018



Data compiled on:
5/23/2018

O&M, OSC

North Sierra Precipitation: 8-Station Index, May 16, 2018



Percent of Average for this Date: 81%

2016-2017 Daily Precip (wettest) 94.7

1982-1983 (2nd wettest) 88.5

1997-1998 82.4

Average (1966-2015) 51.8

Current Daily Precip:39.2

2014-2015 Daily Precip 37.2

1976-1977(2nd driest & driest thru Aug) 19.0

Cumulative Daily/Monthly Precipitation (inches)

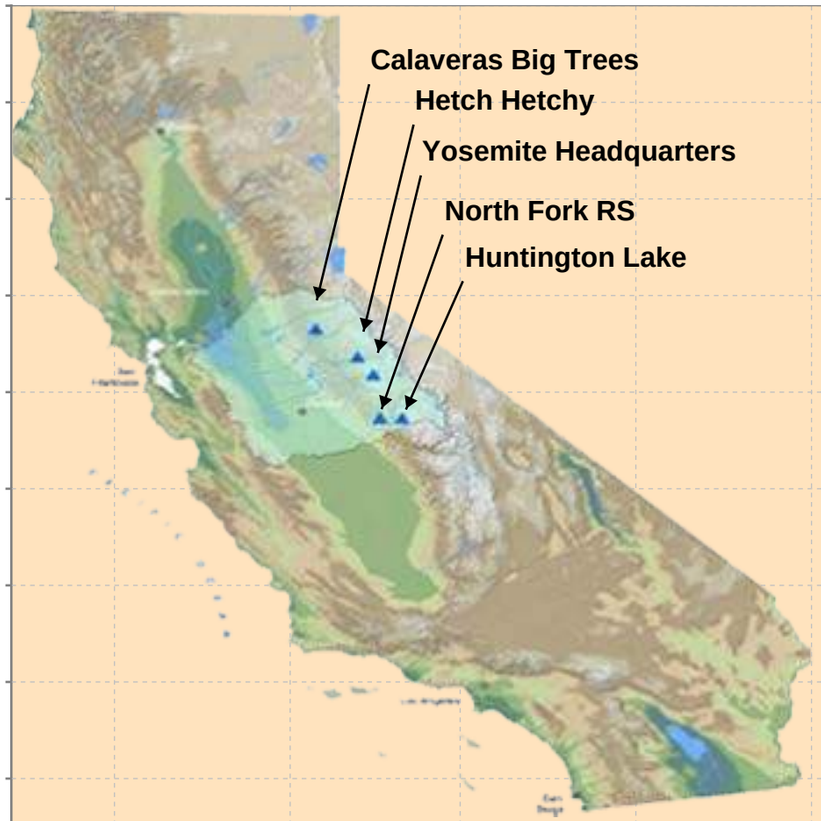
Total Water Year Precipitation

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

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

Water Year (October 1 - September 30)

San Joaquin Precipitation: 5-Station Index, May 16, 2018



Percent of Average for this Date: 78%

1982-1983 (wettest) 77.4

72.7 2016-2017 Daily Precip (2nd wettest)

1997-1998 65.2

Average (1966-2015) 40.2

Current Daily Precip:29.4

2014-2015 Daily Precip 19.0

15.4 1976-1977(2nd driest & driest thru Aug)

Cumulative Daily/Monthly Precipitation (inches)

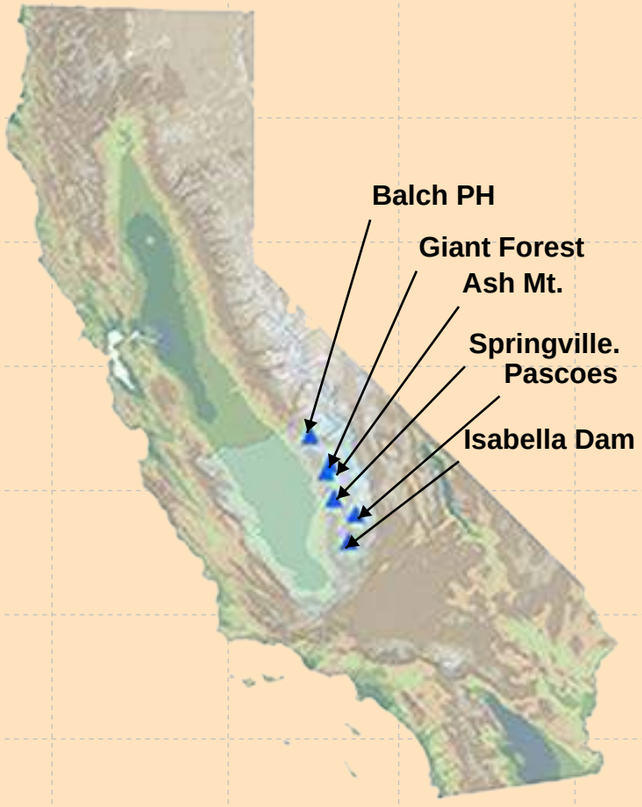
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90

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

Water Year (October 1 - September 30)

Total Water Year Precipitation

Tulare Basin Precipitation: 6-Station Index, May 16, 2018



Percent of Average for this Date: 65%

1968-1969 (Wettest) 56.3

54.2 1997-1998 (2nd wettest)

46.9 2016-2017 Daily Precip

Average (1966-2015) 28.8

Current Daily Precip:17.4

2014-2015 Daily Precip 13.5

10.9 1976-1977 Daily Precip (Driest)

Cumulative Daily/Monthly Precipitation (inches)

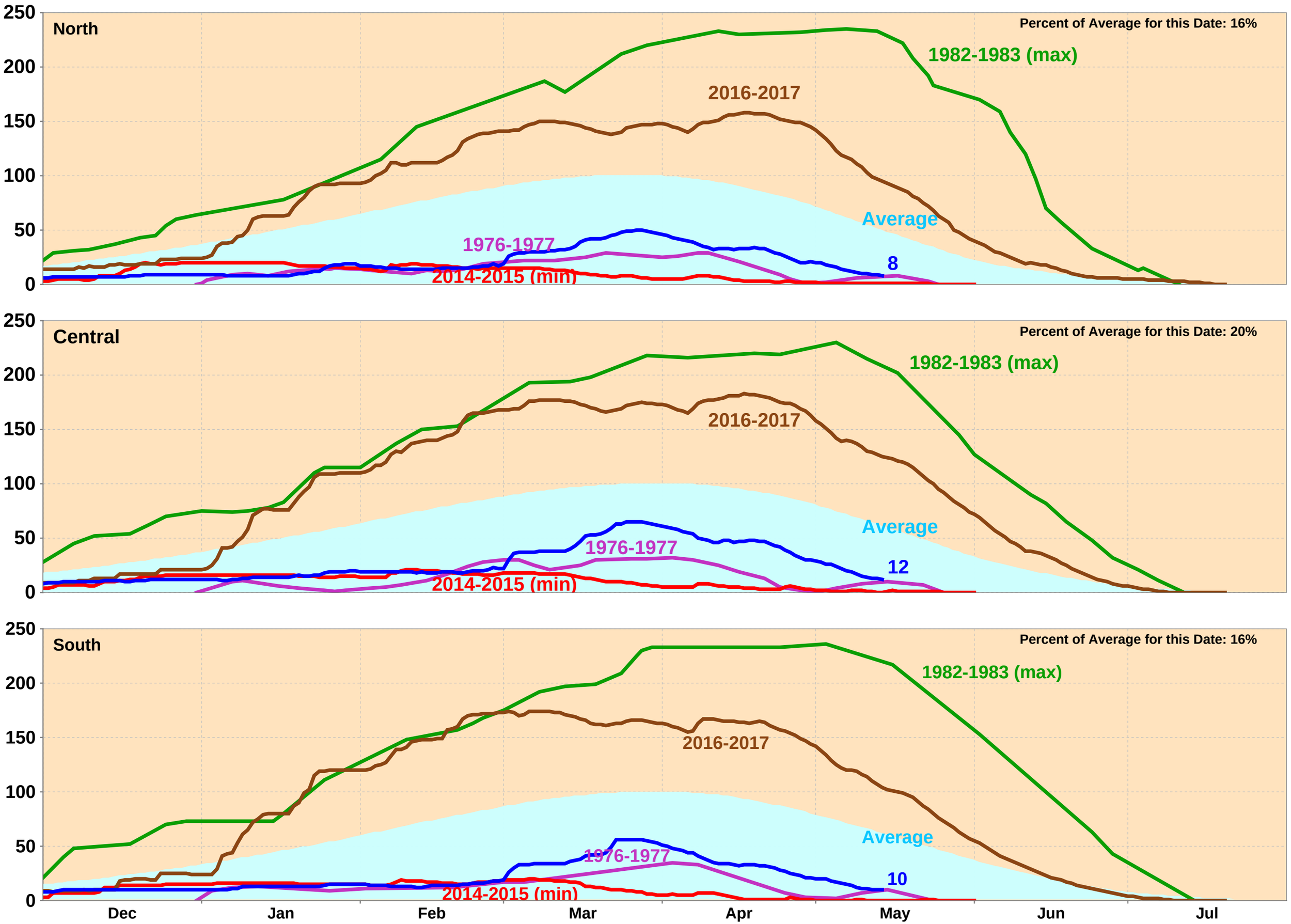
Total Water Year Precipitation

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

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

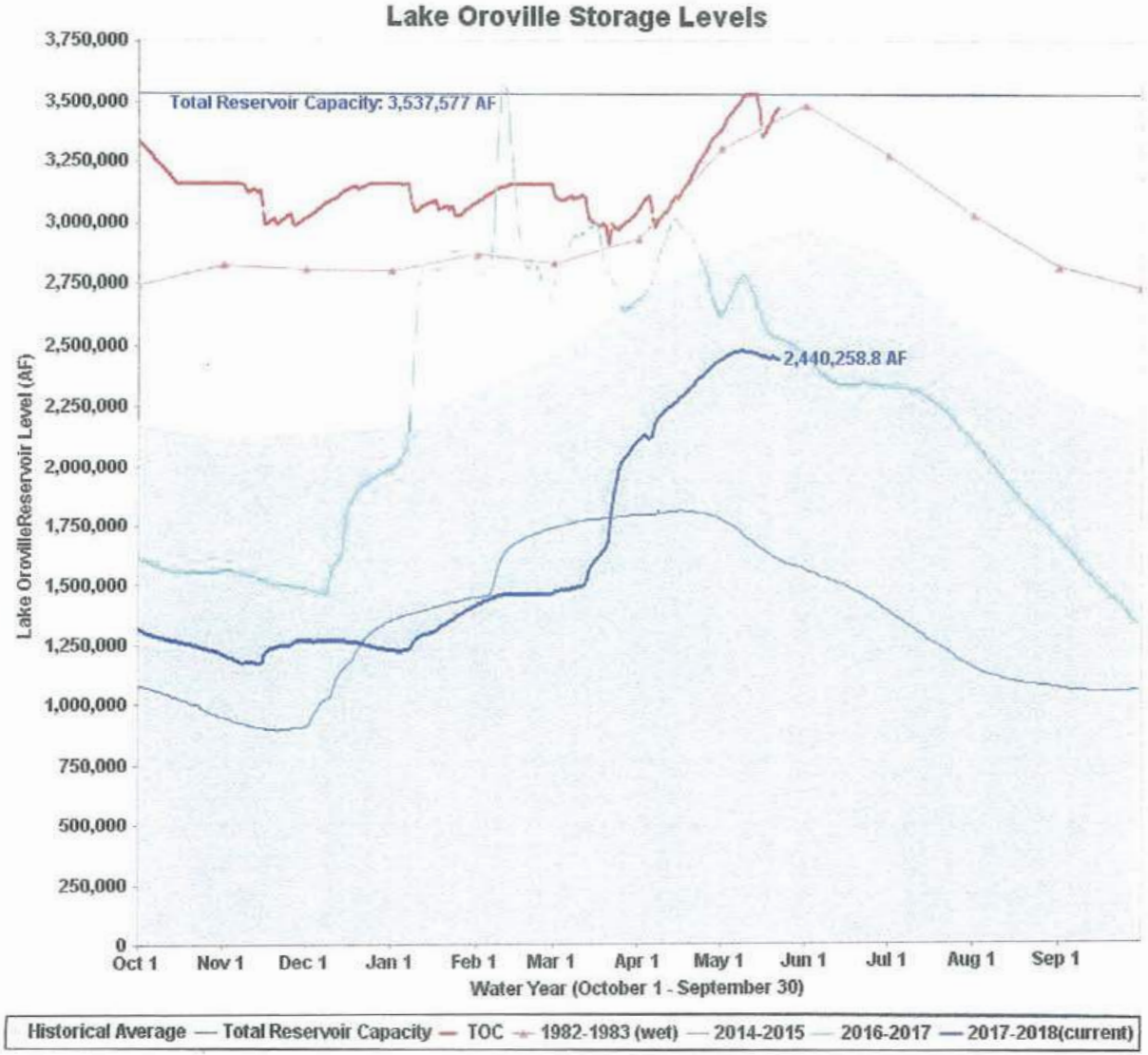
Water Year (October 1 - September 30)

California Snow Water Content, May 14, 2018, Percent of April 1 Average



Statewide Percent of April 1: 10%

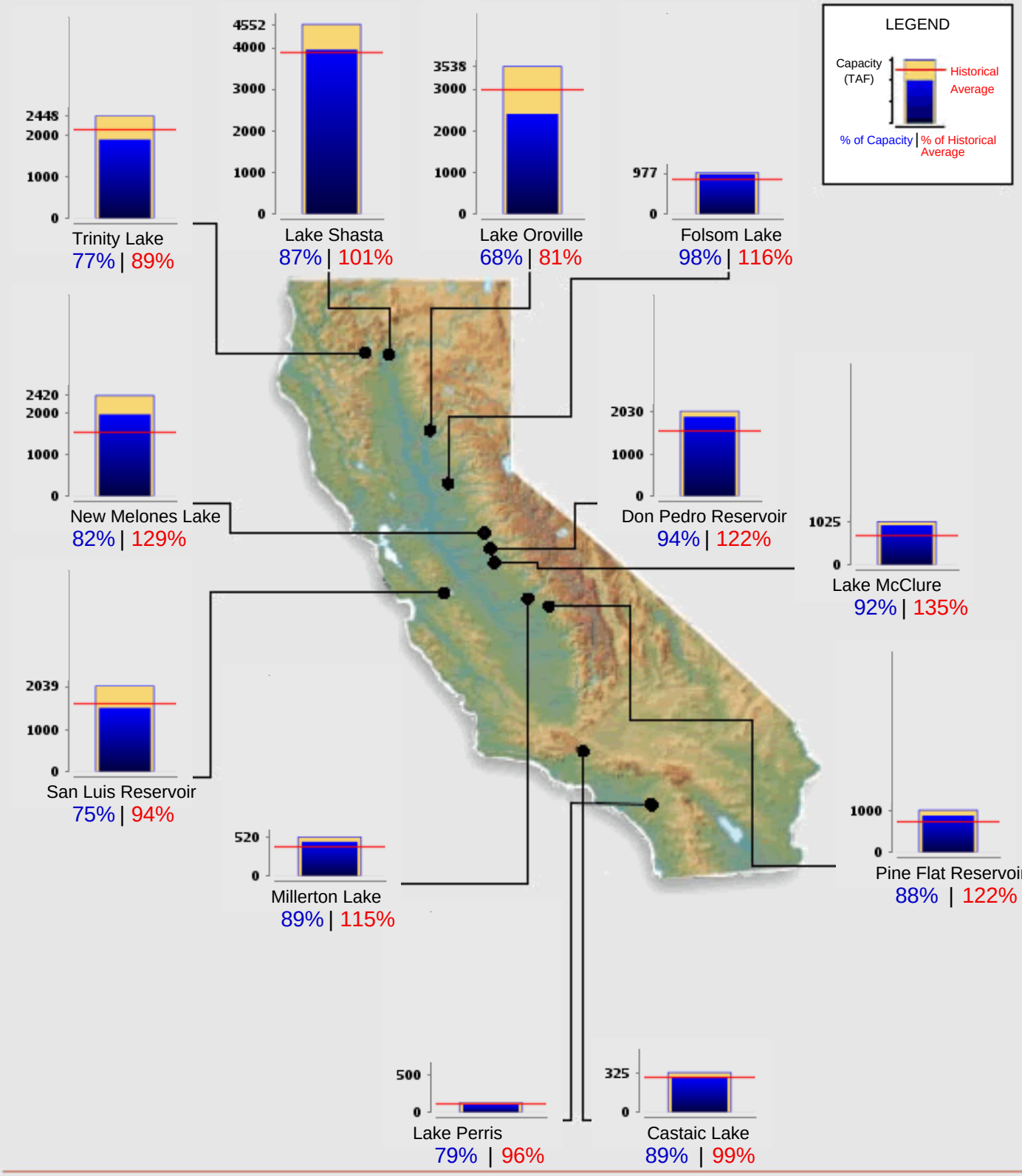
Statewide Percent of Average for Date: 17%


Lake Oroville Storage Levels
3,750,000
3,500,000
3,250,000
3,000,000
2,750,000
2,500,000
2,250,000
2,000,000
1,750,000
1,500,000
1,250,000
1,000,000
750,000
500,000
250,000
0
Lake OrovilleReservoir Level (AF)
Total Reservoir Capacity: 3,537,577 AF
2,440,258.8 AF
Oct 1
Nov 1
Dec 1
Jan 1
Feb 1
Mar 1
Apr 1
May 1
Jun 1
Jul 1
Aug 1
Sep 1
Water Year (October 1 - September 30)
Historical Average
Total Reservoir Capacity
TOC
1982-1983 (wet)
2014-2015
2016-2017
2017-2018(current)

Reservoir Conditions

Ending At Midnight - May 31, 2018

CURRENT RESERVOIR CONDITIONS



Graph Updated 06/01/2018 08:15 AM

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

JUNE 5, 2018

RE: FISCAL 2018/2019 OPERATING, GENERAL AND WASTEWATER BUDGETS

Attached for your review is a draft of the proposed Operating, General and Wastewater Fund Budgets for Fiscal Year 2018/2019.

The Finance Committee has met and reviewed the budgets.

Staff is available to answer any questions the Board may have with regard to the budgets for the 2018/2019 Fiscal Year.

DRAFT

DESERT WATER AGENCY

OPERATING FUND BUDGET

2018 - 2019

DESERT WATER AGENCY
OPERATING FUND
2018-2019 BUDGET WITH PRIOR YEAR COMPARISON

	ACTUAL 2016-2017	ACTUAL TO 3/31/2018	BUDGET 2017-2018	OVER OR UNDER	BUDGET 2018-2019
OPERATING REVENUES					
Water Sales	$23,592,785	$21,623,463	$27,000,000	($5,376,537)	$33,900,000
Power Sales	$20,638	$23,122	$24,000	($878)	$33,600
Reclamation Sales	$1,435,011	$1,096,139	$1,386,000	($289,861)	$1,524,000
TOTAL OPER REVENUES	$25,048,433	$22,742,724	$28,410,000	($5,667,276)	$35,457,600
WATER SERVICES					
Fire Protection	$176,750	$194,467	$264,300	($69,833)	$291,600
Back-up Facility Charge	$939,845	$712,255	$576,000	$136,255	$774,000
Service Charges	$433,138	$713,977	$527,100	$186,877	$741,300
Charge for Inst of Serv & Mtr	$106,489	$137,885	$201,000	($63,115)	$180,000
TOTAL WATER SERVICE	$1,656,222	$1,758,584	$1,568,400	$190,184	$1,986,900
TOTAL OPER REVENUES	$26,704,656	$24,501,308	$29,978,400	($5,477,092)	$37,444,500
OPERATING EXPENSES					
SOURCE OF SUPPLY					
Supervision & Engineering	$45,446	$33,324	$42,900	($9,576)	$45,000
Operating Labor & Expense	$49,541	$62,095	$45,600	$16,495	$48,000
Misc Source of Supply	$14,530	$9,965	$12,600	($2,635)	$13,500
Maintenance of Struct & Improv	$84,719	$56,343	$94,500	($38,157)	$91,800
Maint, Rds, Coll, Impo, Res	$16,315	$7,844	$26,400	($18,556)	$59,100
Maintenance of Intakes	$20,694	$7,709	$211,200	($203,491)	$205,200
Maintenance of Wells	$8,375	$0	$8,700	($8,700)	$7,500
Groundwater Replenishment	$3,363,663	$2,925,213	$3,736,800	($811,587)	$4,548,600
TOTAL SOURCE OF SUPPLY	$3,603,283	$3,102,493	$4,178,700	($1,076,207)	$5,018,700
PUMPING					
Supervision & Engineering	$97,208	$83,172	$92,400	($9,228)	$102,000
Pumping Labor Expense	$188,312	$143,905	$174,000	($30,095)	$190,200
Misc Exp & Care of Grounds	$98,492	$78,086	$110,700	($32,614)	$111,600
Maintenance of Structures	$64,326	$26,481	$72,000	($45,519)	$48,000
Maint of Pumping Equipment	$202,564	$82,769	$321,000	($238,231)	$324,000
Power Purchases	$2,287,479	$1,739,945	$2,374,000	($634,055)	$2,364,000
TOTAL PUMPING	$2,938,382	$2,154,358	$3,144,100	($989,742)	$3,139,800

DESERT WATER AGENCY
OPERATING FUND
2018-2019 BUDGET WITH PRIOR YEAR COMPARISON

	ACTUAL 2016-2017	ACTUAL TO 3/31/2018	BUDGET 2017-2018	OVER OR UNDER	BUDGET 2018-2019
REGULATORY WATER TREATMENT					
Supervision & Engineering	$113,405	$85,898	$108,600	($22,702)	$113,100
Operating Labor Expense	$116,707	$82,836	$105,000	($22,164)	$114,000
Water Analysis/Health Dept.	$168,465	$142,574	$177,000	($34,426)	$189,000
Chem & Filtering Material	$77,099	$66,881	$69,000	($2,119)	$81,000
Maint of Structures	$635	$0	$900	($900)	$600
Maint of Water Treat Equipment	$49,268	$23,130	$49,500	($26,370)	$45,000
TOTAL WATER TREATMENT	$525,579	$401,319	$510,000	($108,681)	$542,700
TRANSMISSION & DISTRIBUTION					
Supervision & Engineering	$453,638	$321,384	$444,000	($122,616)	$435,900
Storage Facilities Expense	$130,847	$102,065	$126,000	($23,935)	$135,000
Trans & Distr Lines Expense	$85,212	$58,257	$136,200	($77,943)	$139,500
Meter Expense	$70,153	$38,621	$79,800	($41,179)	$69,900
Customer Install Expense	$76,425	$127,917	$136,200	($8,283)	$183,000
Cross Connect Expense	$141,596	$84,285	$126,000	($41,715)	$120,000
Misc Supply Expense	$38,794	$31,350	$27,000	$4,350	$27,000
Maintenance of Struct & Impv	$0	$343	$3,000	($2,657)	$2,400
Maintenance of Reservoirs	$889,448	$1,088,270	$2,700,000	($1,611,730)	$2,430,000
Maintenance of Mains	$1,306,546	$602,622	$990,000	($387,378)	$1,254,000
Maintenance of Whitewater MWC	$52,892	$20,067	$81,000	($60,933)	$54,600
Maintenance of Fire Services	$47,796	$29,416	$48,600	($19,184)	$51,000
Maintenance of Services	$215,116	$136,317	$201,000	($64,683)	$204,000
Maintenance of Meters	$105,924	$64,302	$94,800	($30,498)	$88,200
Maintenance of Hydrants	$56,454	$29,364	$60,000	($30,636)	$48,000
TOTAL TRANS & DIST	$3,670,841	$2,734,580	$5,253,600	($2,519,020)	$5,242,500
CUSTOMER ACCOUNT EXPENSE					
Supervision & Engineering	$108,072	$93,785	$98,700	($4,915)	$120,000
Meter Reading Expense	$118,217	$81,426	$117,000	($35,574)	$112,800
Customer Rec & Coll Exp	$732,075	$491,065	$723,700	($232,635)	$690,000
Information Systems Supplies	$0	$3,562	$3,000	$562	$3,600
Uncollectible Accounts	$21,873	$23,815	$21,000	$2,815	$30,000
TOTAL CUST ACCT EXPENSE	$980,238	$693,653	$963,400	($269,747)	$956,400

DESERT WATER AGENCY
OPERATING FUND
2018-2019 BUDGET WITH PRIOR YEAR COMPARISON

	ACTUAL 2016-2017	ACTUAL TO 3/31/2018	BUDGET 2017-2018	OVER OR UNDER	BUDGET 2018-2019
ADMINISTRATIVE & GEN EXPENSE					
Administrative & Gen Salaries	$819,456	$569,429	$770,600	($201,171)	$718,200
Office Supplies & Expense	$240,190	$168,158	$261,300	($93,142)	$265,950
Legal	$53,042	$34,944	$57,000	($22,056)	$54,000
Engineering	$87,769	$36,474	$60,000	($23,526)	$51,000
Auditing	$35,395	$35,197	$36,600	($1,403)	$39,000
Appraisals & Consultants	$145,268	$96,141	$91,500	$4,641	$94,500
Insurance & Claims	$161,130	$109,055	$171,600	($62,545)	$174,000
Injuries & Safety	$356,591	$250,478	$303,300	($52,822)	$326,400
Pension	$700,488	$1,353,352	$1,478,100	($124,748)	$2,579,700
Health Care Benefits	$1,854,245	$1,457,923	$1,302,900	$155,023	$1,784,400
OPEB Benefits	$1,063,062	$0	$1,993,400	($1,993,400)	$1,518,000
Other Employee Benefits	$426,380	$313,481	$419,400	($105,919)	$457,500
Payroll Taxes - FICA	$463,250	$339,459	$478,100	($138,641)	$502,200
Unemployment Insurance	$0	$0	$0	$0	$0
Vacation Pay	$757,208	$590,066	$675,000	($84,934)	$699,000
Maintenance - Oper Center	$205,213	$137,046	$220,600	($83,554)	$192,100
Maintenance - Solar Facilities	$14,334	$3,207	$4,200	($993)	$3,900
Information Systems	$253,336	$208,270	$270,900	($62,630)	$354,000
Maint - Office Equip	$39,918	$41,635	$39,300	$2,335	$84,000
Maint - Info.Systems Equip	$108,414	$88,085	$129,000	($40,915)	$126,000
Maint - Telemetry Equip	$19,457	$11,044	$21,000	($9,956)	$30,000
Maint - Comm Equip	$7,775	$3,908	$8,700	($4,792)	$7,200
Supervision & Engineering	$167,495	$126,489	$159,000	($32,511)	$166,500
Storeroom Expense	$59,884	$40,494	$57,000	($16,506)	$56,700
Transportation	$287,081	$230,908	$300,000	($69,092)	$315,000
Tools & Work Equipment	$163,763	$97,720	$120,000	($22,280)	$135,000
Heavy Equipment Maint	$24,374	$12,040	$21,000	($8,960)	$19,500
Director's Fees	$43,652	$24,749	$55,500	($30,751)	$48,000
Public Information	$181,106	$95,035	$200,700	($105,665)	$206,100
Water Conservation	$15,137	$68,526	$175,200	($106,674)	$152,400
Water Conservation - Turf Buy Back	$438,897	$40,404	$522,300	($481,896)	$322,500
TOTAL ADMIN & GEN EXP	$9,193,310	$6,583,717	$10,403,200	($3,819,483)	$11,482,750
REGULATORY EXPENSES					
Certificates/Training/School	$25,326	$49,067	$59,100	($10,033)	$126,600
Health Department / Services	$86,429	$15,000	$48,000	($33,000)	$45,000
State - Regulatory	$28,847	$12,678	$33,000	($20,322)	$27,000
Federal - Regulatory	$13,997	$7,003	$67,500	($60,497)	$48,000
Reclamation - Regulatory	$33,772	$81,044	$51,000	$30,044	$75,000
AQMD Compliance	$815	$1,802	$900	$902	$900
RMP/OSHA/Misc.	$37,805	$16,250	$42,000	($25,750)	$39,000
Legal	$1,800	$0	$300	($300)	$0
TOTAL REGULATORY EXPENSES	$228,791	$182,844	$301,800	($118,956)	$361,500

DESERT WATER AGENCY
OPERATING FUND
2018-2019 BUDGET WITH PRIOR YEAR COMPARISON

	ACTUAL 2016-2017	ACTUAL TO 3/31/2018	BUDGET 2017-2018	OVER OR UNDER	BUDGET 2018-2019
SNOW CREEK HYDRO EXPENSE					
Snow Creek Hydro	$43,653	$17,509	$40,200	($22,691)	$37,200
TOTAL SNOW CREEK HYDRO	$43,653	$17,509	$40,200	($22,691)	$37,200
RECLAMATION PLANT EXPENSE					
Pumping Expense	$282,246	$191,623	$285,300	($93,677)	$270,100
Treatment Expense	$520,643	$508,869	$1,259,400	($750,531)	$974,500
Transportation/Distribution	$66,022	$105,992	$807,550	($701,558)	$67,100
Administrative & General	($253,503)	$88,216	$142,500	($54,284)	$126,300
TOTAL RECL PLANT EXP	$615,408	$894,700	$2,494,750	($1,600,050)	$1,438,000
OTHER OPERATING EXPENSE					
Depreciation (Inc Recl)	$5,589,080	$4,214,690	$5,654,400	($1,439,710)	$5,804,300
Services Rendered Cust	$128,430	$168,161	$135,000	$33,161	$189,000
Dir Costs App to W.O.'s	$610,096	($409,442)	$645,000	($1,054,442)	$705,000
Indir Adm & Gen Exp Cap	($1,299,302)	($1,016,537)	($1,650,000)	$633,463	($1,494,000)
TOTAL OTHER OPER EXP	$5,028,304	$2,956,872	$4,784,400	($1,827,528)	$5,204,300
TOTAL OPERATING EXPENSES	$26,827,788	$19,722,045	$32,074,150	($12,352,105)	$33,423,850
NET INCOME FROM OPER	($123,133)	$4,779,263	($2,095,750)	$6,875,013	$4,020,650
NON-OPERATING REVENUES					
Revenue from Leases	$72,373	$62,410	$72,750	($10,340)	$72,900
Interest	$127,055	$177,974	$123,000	$54,974	$330,000
Gains/Loss Investments	($4,700)	$0	$1,500	($1,500)	$1,500
Other Income	$9,028	$419,869	$400,000	$19,869	$0
DWA Front Footage Chgs	$0	$76,160	$0	$76,160	$0
Gains on Retirements	$20,864	$22,595	$9,000	$13,595	$12,000
Discounts	$2,958	$170	$3,600	($3,430)	$300
Revenue - Contributed	$334,699	$0	$258,000	($258,000)	$498,000
TOTAL NON-OPER REV	$562,276	$759,178	$867,850	($108,672)	$914,700
NON OPERATING EXPENSES					
OPEB Interest	$426,258	$0	$375,000	($375,000)	$947,450
Exp App to Prior Years	$50,520	($277,122)	$0	($277,122)	$0
Services to Others	$0	$0	$0	$0	$0
Losses on Retirements	$28,981	$25,894	$36,000	($10,106)	$39,000
TOTAL NON-OPER EXP	$505,760	($251,228)	$411,000	($662,228)	$986,450
TOTAL NET INCOME	($66,616)	$5,789,669	($1,638,900)	$7,428,569	$3,948,900

DESERT WATER AGENCY
OPERATING FUND
2018-2019 BUDGET WITH PRIOR YEAR COMPARISON

	ACTUAL 2016-2017	ACTUAL TO 3/31/2018	BUDGET 2017-2018	OVER OR UNDER	BUDGET 2018-2019
APPLICATION OF COMMIT FUNDS					
Capital Loan to Wastewater Fund	$0	$0	$0	$0	$0
TOTAL COMMIT FUNDS	$0	$0	$0	$0	$0
BALANCE REMAINING	($66,616)	$5,789,669	($1,638,900)	$7,428,569	$3,948,900
Add Back Depreciation (Plant/Equip)	$5,589,080	$4,214,690	$5,654,400	($1,439,710)	$5,804,300
Funds Avail For Capital Additions	$5,522,464	$10,004,359	$4,015,500	$5,988,859	$9,753,200
Less Capital Additions:					
Routine Improvements	$2,867,476	$4,824,727	$6,033,800	($1,209,073)	$8,243,650
General Plan Improvements	$1,836,703	$43,486	$100,000	($56,514)	$100,000
BALANCE	$818,285	$5,136,146	($2,118,300)	$7,254,446	$1,409,550
TOTAL BUDGET			**$38,618,950**		**$42,753,950**

	2017-2018 BEGIN BAL	2017-2018 ADJUSTMENTS	2018-2019 ADDITIONS	2018-2019 DELETIONS	BALANCE
Estimated Reserve Fund Balance 6/30/18					$18,000,000
Inter-Fund Loan/LC - General Fund					$0
Reserves:					
Reserve for Operations	$6,225,000	$0	$3,095,000	$0	
Reserve for Replacements	$1,785,000	$0	$136,000	$0	
Reserve for Disaster Response	$0	$0	$0	$0	
Reserve for Land Acquisition	$0	$0	$0	$0	
Reserve for Regulatory Compliance	$0	$0	$0	$0	
Reserve for Retirement Benefits	$1,100,000	$0	$1,900,000	$0	
Total Reserves - 6/30/18	$9,110,000	$0	$5,131,000	$0	($14,241,000)
Required for 2017-18 Carryover Capital Items					($5,167,900)
2018-19 Budget Balance					$1,409,550
Unappropriated Fund Balance 6/30/19					$650

BUDGET AMOUNT SUMMARY:

Total Operating Expenses	$33,423,850
Non-Operating Expenses	$986,450
Application of Committed Funds	$0
Capital Additions	$8,343,650
TOTAL BUDGET	**$42,753,950**

DESERT WATER AGENCY - OPERATING FUND
2018-2019 BUDGET
CAPITAL IMPROVEMENTS

W.O. NO.	DESCRIPTION	ACCOUNT NO.	ESTIMATED COST
ROUTINE			
PIPELINES			
18-160--12	MAIN REPLACEMENTS	11171	$3,950,000
18-161--16	SOUTH PALM CANYON PIPELINE REPLACEMENT @ TAHQUITZ BRIDGE	11171	$450,000
18-399	CONTINGENCY MAINS	11171	$100,000
	TOTAL PIPELINES		**$4,500,000**
TRANSPORTATION EQUIPMENT			
18-162-M	1 - FORD F450 - CREW CAB TRUCK (REPLACE UNIT #27)	11183	$75,000
18-163-M	1 - FORD F450 - CREW CAB TRUCK (REPLACE UNIT #31)	11183	$75,000
18-164-M	1 - FORD F450 - CREW CAB TRUCK (NEW CREW)	11183	$75,000
18-165-M	1 - FORD F450 - CREW CAB TRUCK (NEW CREW)	11183	$75,000
18-166-M	1 - FORD EXPLORER (GM)	11183	$34,000
18-167-M	1 - CAT 430 BACKHOE (REPLACE BACKHOE #2)	11183	$165,000
18-168-M	1 - SMALL DUMP TRUCK (NEW CREW)	11183	$75,000
18-169-M	2 - FX50B & MV800 VACUUM EXCAVATION MACHINES	11183	$186,000
	TOTAL TRANSPORTATION EQUIPMENT		**$760,000**
MISCELLANEOUS			
18-100-S-01	1" SERVICE REPLACEMENTS	11172	$300,000
18-100-S-02	2" SERVICE REPLACEMENTS	11172	$90,000
18-170-L	LAND PURCHASE - DINAH SHORE PROPERTY	11120	$732,400
18-171-M	RECLAMATION PLANT - SCRUBBER REPLACEMENT	11130	$400,000
18-172-W-35	WELL #35 - SWITCH GEAR	11141	$40,000
18-173-W-36	WELL #36 - SWITCH GEAR	11141	$40,000
17-121-W-17	WELL #17 - BOOSTER SWITCH GEAR (AUGMENT)	11141	$27,125
17-122-W-21	WELL #21 - SWITCH GEAR (AUGMENT)	11141	$32,000
17-126-W-25	WELL #25 - MCC & PENTHOUSE FAN (AUGMENT)	11141	$35,350
18-174-C-34	WELL #34 - CHLORINE INJECTION	11160	$37,500
18-175-M	RESERVOIR FALL PROTECTION	11176	$35,350

DESERT WATER AGENCY - OPERATING FUND
2018-2019 BUDGET
CAPITAL IMPROVEMENTS

W.O. NO.	DESCRIPTION	ACCOUNT NO.	ESTIMATED COST
MISCELLANEOUS (cont'd)			
18-176-M	2 - COMPRESSORS (VACUUM EXCAVATION MACHINES)	11185	$10,000
18-177-M	1 - WELDER MULTI-PROCESS DIMENSION MACHINE	11186	$7,500
18-178-M	STARWIND STORAGE (STONE FLY UPGRADES)	11188	$57,500
18-179-M	I-SERIES MODERNIZATION - PHASE II	11188	$345,000
18-180-M	I-TRON MVRS UPGRADE	11188	$8,600
18-181-M	TEMPERED SECURITY NETWORK	11188	$48,300
18-182-M	1 - HD PRO II DIAGNOSTIC TABLET	11188	$5,500
18-183-M	ELECTRONIC DOCUMENT MANAGEMENT SYSTEM	11188	$67,625
18-201-S-01	1" INVOICED SERVICES	11172	$45,000
18-201-S-02	2" INVOICED SERVICES	11172	$33,000
18-202-E-01	1" ELECTRONIC METERS	11173	$165,000
18-202-M-01	1" METER PURCHASE	11173	$63,000
18-202-M-02	2" METER PURCHASES	11173	$36,000
18-202-M-03	3" METER PURCHASES	11173	$3,900
18-202-M-06	6" METER PURCHASES	11173	$6,000
18-202-M-15	1 1/2" METER PURCHASES	11173	$33,000
18-202-M-75	3/4" METER PURCHASES	11173	$129,000
18-499	CONTINGENCY	VARIOUS	$150,000
	TOTAL MISCELLANEOUS		**$2,983,650**
	TOTAL ROUTINE		**$8,243,650**

DESERT WATER AGENCY - OPERATING FUND
2018-2019 BUDGET
CAPITAL IMPROVEMENTS

W.O. NO.	DESCRIPTION	ACCOUNT NO.	ESTIMATED COST
GENERAL PLAN			
PIPELINES			
18-699	MAIN OVERSIZING	11171	$100,000
	TOTAL PIPELINES		**$100,000**
	TOTAL GENERAL PLAN		**$100,000**
	TOTAL CAPITAL IMPROVEMENTS 2018-2019		**$8,343,650**

RESERVE POLICY ANALYSIS
2018/2019 BUDGET

OPERATING FUND

In May 2006, the Board of Directors established a policy for Agency reserves (Resolution No. 926). Per section 5 of the policy, an annual review of the reserves will be presented during the annual budget presentation. Presented below is the reserve analysis:

RESERVE FOR OPERATIONS

Reserve should be equal to 6-months to 1-year of operations

2018 / 2019 Cost of Operations	=	**$33,344,650**
2018/2019 Reserve Requirement (6 Months)	=	$16,672,325
2017/2018 Current Reserve Balance	=	$6,225,000
2018/2019 Reserve Adjustment *	=	$3,095,000
2018/2019 Reserve Balance	=	**$9,320,000**
2018/2019 Reserve Shortfall =	=	**<$7,352,325>**

* Proposed $3,095,000 addition to the Reserve for Operations in Fiscal 2018/2019

2018/2019 RESERVE FOR OPERATIONS = $9,320,000

RESERVE FOR REPLACEMENTS

Reserve should be equal to the accumulated depreciation of assets

2017 / 2018 Accumulated Depreciation @ 4/30/18	=	**$121,093,509**
2018/2019 Reserve Requirement	=	$121,093,500
2017/2018 Current Reserve Balance	=	$1,785,000
2018/2019 Reserve Adjustment *	=	$136,000
2018/2019 Reserve Balance	=	**$1,921,000**
2018/2019 Reserve Shortfall =	=	**<$119,172,500>**

* Proposed $215,000 addition to the Reserve for Replacements in Fiscal 2018/2019

2018/2019 RESERVE FOR REPLACEMENTS = $1,921,000

RESERVE FOR DISASTER RESPONSE

Reserve should be equal to 15% of the Agency's General System

System Value @ 4/30/18	=	$242,029,240
15% of System Value	=	**$36,304,386**
2018/2019 Reserve Requirement	=	$36,304,400
2017/2018 Current Reserve Balance	=	$0
2018/2019 Reserve Adjustment *	=	$0
2018/2019 Reserve Balance	=	**$0**
2018/2019 Reserve Shortfall =	=	**<$36,304,400>**

* There are no excess funds available to add to the Reserve for Disaster Response in Fiscal 2018/2019

2018/2019 RESERVE FOR DISASTER RESPONSE = $0

RESERVE FOR LAND ACQUISITIONS

Maximum Reserve Requirement = $5,000,000

2018/2019 Reserve Requirement	=	$5,000,000
2017/2018 Current Reserve Balance	=	$0
2018/2019 Reserve Adjustment *	=	$0
2018/2019 Reserve Balance	=	$0
2018/2019 Reserve Shortfall =	=	**<$5,000,000>**

* There are no excess funds available to add to the Reserve for Land Acquisitions in Fiscal 2018/2019

2018/2019 RESERVE FOR LAND ACQUISITIONS = $0

RESERVE FOR REGULATORY COMPLIANCE

Maximum Reserve Requirement- $10,000,000

2018/2019 Reserve Requirement	=	$10,000,000
2017/2018 Current Reserve Balance	=	$0
2018/2019 Reserve Adjustment *	=	$0
2018/2019 Reserve Balance	=	$0
2018/2019 Reserve Shortfall =	=	<$10,000,000>

* There are no excess funds available to add to the Reserve for Regulatory Compliance in Fiscal 2018/2019

2018/2019 RESERVE FOR REGULATORY COMPLIANCE = $0

RESERVE FOR RETIREMENT BENEFITS

Statutory Requirement (OPEB GASB No. 45)

Reserve Requirement – 2017 Actuarial Study = $29,814,400

2018/2019 Reserve Requirement	=	$29,814,400
2017/2018 Current Reserve Balance	=	$1,100,000
2018/2019 Reserve Adjustment *	=	$1,900,000
2018/2019 Reserve Balance	=	**$3,000,000**
2018/2019 Reserve Shortfall =	=	<$26,814,400>

* Proposed $185,000 addition to the Reserve for Retirement Benefits in Fiscal 2018/2019

2018/2019 RESERVE FOR RETIREMENT BENEFITS = $3,000,000

RESERVE POLICY SUMMARY

**Fiscal 2018/2019 Reserve Requirement	=	**$218,884,625**
Fiscal 2018/2019 Projected Total Reserves	=	**$14,241,000**
Fiscal 2018/2019 Projected Reserve Shortfall =	=	<$204,643,625>

** Reserve Policy and Reserve Requirements (Resolution No. 926) Based on established ACWA and AWWA Policy Principles and Guidelines.

DESERT WATER AGENCY

GENERAL FUND BUDGET

2018 - 2019

DESERT WATER AGENCY
GENERAL FUND BUDGET
2018-2019 BUDGET WITH PRIOR YEAR COMPARISON

	ACTUAL 2016-2017	ACTUAL TO 3/31/2018	BUDGET 2017-2018	OVER (UNDER) BUDGET	BUDGET 2018-2019
OPERATING REVENUES					
Groundwater Replenishment Assessment	$4,545,289	$3,908,718	$5,000,000	($1,091,282)	$6,024,000
Power Sales - Whitewater Hydro	$176,895	$253,687	$213,000	$40,687	$147,000
TOTAL OPERATING REVENUES	$4,722,184	$4,162,405	$5,213,000	($1,050,595)	$6,171,000
OPERATING EXPENSES					
SOURCE OF SUPPLY					
Watershed Management - West Fork	$0	$0	$0	$0	$0
Whitewater Mutual Water Co	$272	$0	$300	($300)	$300
Whitewater Basin Management	$291,285	$83,615	$325,000	($241,385)	$250,000
Mission Creek Basin Management	$19,349	$55,909	$63,000	($7,091)	$67,500
Mission Creek - Garnett Hill Mgmt Plan	$0	$0	$15,000	($15,000)	$12,000
Indio Subbasin Management	$0	$28,181	$30,000	($1,819)	$33,000
Groundwater Monitoring Wells	$125	$0	$300	($300)	$300
U.S.G.S. Water Quality Monitoring System	$14,000	$8,614	$15,000	($6,386)	$12,000
U.S.G.S. Stream Gauging Study	$74,277	$53,857	$75,000	($21,143)	$72,000
Monitoring Wells #2 & #6	$6,649	$201	$9,000	($8,799)	$6,000
Salt Nutrient Plan	$7,439	$0	$0	$0	$0
Groundwater Rights DWA/CVWD	$263,294	$269,202	$250,000	$19,202	$405,000
USDOI Federal Rule Litigation	$287,796	$51,807	$277,000	($225,193)	$150,000
TOTAL SOURCE OF SUPPLY	$964,486	$551,386	$1,059,600	($508,214)	$1,008,100
STATE WATER PROJECT EXPENSE					
Delta O.M.P.& R.	$2,659,211	$1,977,490	$2,612,100	($634,610)	$2,601,300
Transportation O.M.P.& R.	$4,768,914	$3,422,667	$5,092,500	($1,669,833)	$5,010,000
Variable	$3,982,353	$2,462,520	$5,468,400	($3,005,880)	$5,364,600
Off-Aqueduct Power Facilities	$91,647	$83,445	$102,000	($18,555)	$134,400
East Branch Enlargement	$344,328	$296,235	$415,800	($119,565)	$316,800
Replacement Component	($36,661)	$0	$18,000	($18,000)	$0
California Water Fix (CWF)	$0	$0	$0	$0	$226,500
Water Purchases	$4,846	$11,193	$5,157,600	($5,146,407)	$6,000,000
Lake Perris Seepage Recovery Project	$0	$0	$250,000	($250,000)	$250,000
CVWD Reimb (Delta, Var, OAP)	($423,477)	($176,355)	($677,400)	$501,045	($695,400)
MWD Reimb (Delta, Trans, Var, OAP)	$0	$0	$0	$0	$0
TOTAL STATE WTR PROJ. EXPENSE	$11,391,161	$8,077,195	$18,439,000	($10,361,805)	$19,208,200
WHITEWATER HYDRO EXPENSE					
Supervision & Labor	$14,846	$7,539	$12,600	($5,061)	$15,000
Miscellaneous/SCE	$5,537	$3,432	$9,900	($6,468)	$10,500
Tools & Work Equipment	$0	$0	$2,400	($2,400)	$2,100
Maint Structures & Improvements	($83)	$64	$9,000	($8,936)	$6,000
Maint of Equipment	$18,209	$5,158	$102,000	($96,842)	$60,000
Whitewater Hydro Contract Management	$19,421	$27,456	$36,600	($9,144)	$36,600
TOTAL WHITEWTR HYDRO EXPENSE	$57,931	$43,649	$172,500	($128,851)	$130,200
ADMIN & GENERAL EXPENSE					
Salaries	$261,613	$178,152	$418,200	($240,048)	$594,600
Office Supplies & Expenses	$10,880	$7,349	$12,900	($5,551)	$13,200
Legal	$179,368	$198,960	$99,000	$99,960	$225,000
State Water - Audit Fees	$16,151	$16,622	$16,800	($178)	$18,000

DESERT WATER AGENCY
GENERAL FUND BUDGET
2018-2019 BUDGET WITH PRIOR YEAR COMPARISON

	ACTUAL 2016-2017	ACTUAL TO 3/31/2018	BUDGET 2017-2018	OVER (UNDER) BUDGET	BUDGET 2018-2019
ADMIN & GENERAL EXPENSE (cont)					
Engineering	$69,811	$20,045	$99,000	($78,955)	$231,000
Appraisals & Consultants	$172,653	$85,734	$144,000	($58,266)	$129,000
Auditing	$8,195	$9,565	$9,300	$265	$10,200
Conferences & Seminars	$71,521	$34,677	$69,000	($34,323)	$63,000
Membership Dues & Subscriptions	$84,068	$81,702	$84,300	($2,598)	$84,600
Bay-Delta Hearings	$54,592	$54,779	$65,300	($10,521)	$63,000
SWC-Energy Fund	$8,485	$10,611	$10,600	$11	$11,100
Utilities	$25,381	$18,087	$22,500	($4,413)	$24,000
Property & Liability Insurance	$46,287	$33,638	$48,000	($14,362)	$46,200
Other Employee Benefits	$174,586	$117,635	$228,000	($110,365)	$373,300
Payroll Taxes	$36,009	$24,358	$31,500	($7,142)	$37,200
Uncollectible Accounts	$12,939	$0	$0	$0	$0
LAFCO Expenses	$11,300	$13,224	$11,700	$1,524	$13,500
Integrated Regional Water Mgmt Plan (IRWMP)	$50,874	$22,445	$60,000	($37,555)	$60,000
IRWMP Conservation Program	($4,631)	$0	$0	$0	$0
Operations Center Security	$5,522	$2,170	$5,100	($2,930)	$6,000
Operations Center Maintenance	$78,584	$54,471	$42,500	$11,971	$81,000
Directors' Fees	$43,652	$16,954	$55,500	($38,546)	$48,000
Public Information	$115,346	$73,660	$195,600	($121,940)	$195,900
Water Conservation	$75,467	$49,012	$157,200	($108,188)	$152,400
Election Expense	$0	$21,736	$0	$21,736	$159,000
TOTAL ADMIN & GENERAL EXPENSE	$1,608,651	$1,145,585	$1,886,000	($740,415)	$2,639,200
OTHER OPERATING EXPENSES					
Depreciation	$5,704,640	$0	$5,219,100	($5,219,100)	$6,270,000
Direct/Indirect Costs	($398)	($3,671)	($24,000)	$20,329	($199,800)
TOTAL OTHER OPERATING EXPENSES	$5,704,242	($3,671)	$5,195,100	($5,198,771)	$6,070,200
TOTAL OPERATING EXPENSES	$19,726,471	$9,814,144	$26,752,200	($16,938,056)	$29,055,900
NET OPERATING INCOME (loss)	($15,004,287)	($5,651,739)	($21,539,200)	$15,887,461	($22,884,900)
NON-OPERATING REVENUES					
Property Taxes	$25,242,898	$15,299,766	$24,000,000	($8,700,234)	$27,000,000
Interest - Invested Reserves	$1,129,185	$1,220,582	$1,500,000	($279,418)	$1,800,000
Interest - Wastewater Fund	$3,701	$0	$2,450	($2,450)	$1,225
Supplemental Imported Water Fees	$497,270	$272,170	$324,000	($51,830)	$375,000
Gains/Loss Investments	$0	$0	$0	$0	$0
Other	($402,461)	($208,865)	$0	($208,865)	$0
TOTAL NON-OPERATING REVENUES	$26,470,593	$16,583,654	$25,826,450	($9,242,796)	$29,176,225

DESERT WATER AGENCY
GENERAL FUND BUDGET
2018-2019 BUDGET WITH PRIOR YEAR COMPARISON

	ACTUAL 2016-2017	ACTUAL TO 3/31/2018	BUDGET 2017-2018	OVER (UNDER) BUDGET	BUDGET 2018-2019
NON-OPERATING EXPENSES					
Prior Year - State Water Project	$4,363	($28,421)	$0	($28,421)	$0
Prior Year Expenses	($6,880)	($60,000)	$0	($60,000)	$0
TOTAL NON-OPERATING EXPENSES	($2,517)	($88,421)	$0	($88,421)	$0
TOTAL NET INCOME	$11,468,823	$11,020,336	$4,287,250	$6,733,086	$6,291,325
APPLICATION OF COMMIT FUNDS					
Bond Service - Principle/Interest	$1,346,878	$345,225	$1,345,450	($1,000,225)	$1,345,800
TOTAL COMMIT FUNDS	$1,346,878	$345,225	$1,345,450	($1,000,225)	$1,345,800
BALANCE REMAINING	$10,121,945	$10,675,111	$2,941,800	$7,733,311	$4,945,525
Add Back Depreciation	$5,704,640	$0	$5,219,100	($5,219,100)	$6,270,000
CAPITAL ADDITIONS					
Delta	$1,137,972	$1,096,138	$1,170,000	($73,862)	$1,213,600
Transportation	$2,629,447	$2,663,421	$2,636,400	$27,021	$2,651,400
Revenue Bond Surcharge	$620,912	$851,310	$1,139,400	($288,090)	$1,140,900
East Branch Enlargement	$863,323	$1,163,798	$1,637,100	($473,302)	$1,630,200
Tehachapi	($3,931)	$87,569	$101,400	($13,831)	$99,000
Delta Improvements (CWF)	$0	$0	$7,000,000	($7,000,000)	$720,000
Lake Perris Seepage Recovery Project	$0	$0	$250,000	($250,000)	$250,000
Sites Reservoir Project	$167,457	$102,615	$750,000	($647,385)	$3,000,000
Whitewater Hydro - Battery Replacement	$0	$0	$0	$0	$0
Whitewater Turn-out Facility (DWA/CVWD)	$0	$0	$0	$0	$0
Op. Cntr - Carpet Replacement (Phase II)	$0	$4,265	$0	$4,265	$0
Op. Cntr - Roof Ladder System	$0	$951	$0	$951	$0
Whitewater Hydro - Relay Switches	$0	$0	$99,925	($99,925)	$0
Op. Cntr - Carpet Replacement (Phase III)	$0	$15,254	$13,900	$1,354	$0
Op. Cntr - Roof Fall Protection Project	$0	$0	$16,700	($16,700)	$0
Op. Cntr - Blaze Security Alarm System	$0	$0	$48,875	($48,875)	$0
Op. Cntr - Lobby/Public Restroom	$0	$0	$38,325	($38,325)	$0
Whitewater Hydro - Display & Controller	$0	$0	$34,500	($34,500)	$0
Whitewater Hydro - Bypass Pipeline	$0	$0	$2,500,000	($2,500,000)	$0
Op. Cntr - Landscape Project	$0	$3,503	$3,503	$0	$0
Op. Cntr - UPS Battery Replacement	$0	$0	$9,014	($9,014)	$0
Op. Cntr - Board Room Security Doors	$0	$0	$2,621	($2,621)	$0
Op. Cntr - Lobby Window Protective Coating	$0	$0	$2,838	($2,838)	$0
Snow Creek Village - Surface Water Treatment	$0	$0	$0	$0	$2,300,000
Land Purchase - Dinah Shore Property	$0	$0	$0	$0	$366,150
Contingency	$0	$0	$132,024	($132,024)	$150,000
TOTAL CAPITAL ADDITIONS	$5,415,180	$5,988,824	$17,586,525	($11,597,701)	$13,521,250
BALANCE	$10,411,405	$4,686,287	($9,425,625)	$14,111,912	($2,305,725)
TOTAL BUDGET			**$45,684,175**		**$43,922,950**

DESERT WATER AGENCY
GENERAL FUND BUDGET
2018-2019 BUDGET WITH PRIOR YEAR COMPARISON

	2017-2018 BEGIN BAL	2017-2018 ADJUSTMENTS	2018-2019 ADDITIONS	2018-2019 DELETIONS	BALANCE
Reserve Fund Balance-6/30/18					$120,948,500
Restricted & Unrestricted Reserves:					
State Water Contract Fund	$49,365,800			$1,338,300	
Reserve For Additional Water	$19,626,000			$415,000	
Reserve for Delta Imporovements (CWF)	$0		$14,519,000		
Reserve For Operations	$8,238,200		$1,609,500		
Reserve For Replacements	$7,994,000		$463,600		
Regulatory Compliance Reserve	$9,500,000		$500,000		
Land Acquisition Reserve	$5,000,000				
Total Reserves - 6/30/18	$99,724,000	$0	$17,092,100	$1,753,300	($115,062,800)
Required for 2017/18 Carryover Items					($3,579,300)
2018-2019 Budget Balance					($2,305,725)
Unappropriated Fund Balance - 6/30/18					$675

BUDGET AMOUNT SUMMARY

Total Operating Expense	$29,055,900
Non-Operating Expense	$0
Application of Committed Funds	$1,345,800
Capital Additions	$13,521,250
TOTAL BUDGET	**$43,922,950**

DESERT WATER AGENCY
GENERAL FUND BUDGET
2018 - 2019

SUMMARY OF ASSESSED VALUATIONS
AND RESULTING TAX RATES

Assessed Valuations		
Secured	$14,430,929,881	
Unsecured	$657,290,948	
Total Estimated Assessed Valuations*		**$15,088,220,829**
Tax Rate	**2017-2018**	**2018-2019**
Secured	$0.10	$0.10
Unsecured	$0.10	$0.10
Estimated Revenue from Property Taxes		
Secured	$14,430,925	
Unsecured	$657,300	
SBE Unitary	$9,829,725	
RPTTF	$743,050	
County 1% General Purpose Allocation	$1,339,000	
TOTAL ESTIMATED PROPERTY TAXES		**$27,000,000**

* Assessed values reflect a combined 2.73% delinquency and value adjustment factor for secured and unsecured valuations

DESERT WATER AGENCY
GENERAL FUND BUDGET
FISCAL 2018 - 2019

ESTIMATED STATE WATER PAYMENTS

	CAPITAL					O.M.P. & R						
2018	**Revenue Bond Surcharge**	**Delta**	**Transportation**	**Tehachapi**	**East Branch Enlargement**	**Delta**	**Transportation**	**Variable**	**Off-Aqueduct Power Facilities**	**Replacement Component**	**East Branch Enlargement**	**Total**
July	$532,200	$574,500	$1,338,100	—	—	$217,300	$368,300	$458,075	$8,900	$0	$23,700	$3,521,075
August	—	—	—	—	—	$217,300	$368,300	$458,075	$8,900	$0	$23,700	$1,076,275
September	—	—	—	$49,000	$989,000	$217,300	$368,300	$458,075	$8,900	$0	$23,700	$2,114,275
October	—	—	—	—	—	$217,300	$368,300	$458,075	$8,900	$0	$23,700	$1,076,275
November	—	—	—	—	—	$217,300	$368,300	$458,075	$8,900	$0	$23,700	$1,076,275
December	—	—	—	—	—	$217,300	$368,300	$458,075	$8,900	$0	$23,700	$1,076,275
2019												
January	$608,700	$639,100	$1,313,300	—	—	$216,250	$466,700	$436,025	$13,500	$0	$29,100	$3,722,675
February	—	—	—	—	—	$216,250	$466,700	$436,025	$13,500	$0	$29,100	$1,161,575
March	—	—	—	$50,000	$641,200	$216,250	$466,700	$436,025	$13,500	$0	$29,100	$1,852,775
April	—	—	—	—	—	$216,250	$466,700	$436,025	$13,500	$0	$29,100	$1,161,575
May	—	—	—	—	—	$216,250	$466,700	$436,025	$13,500	$0	$29,100	$1,161,575
June	—	—	—	—	—	$216,250	$466,700	$436,025	$13,500	$0	$29,100	$1,161,575
	$1,140,900	$1,213,600	$2,651,400	$99,000	$1,630,200	$2,601,300	$5,010,000	$5,384,600	$134,400	$0	$316,800	$20,162,200

Based on calendar year costs being shared 25.23% DWA and 74.77% CVWD on Variable, Delta Water and Off Aqueduct Charges:

	2018	Variable	Delta Charge	Off Aqueduct	Total	DWA-25.23%	CVWD-74.77%
DWA	55,750 AF	$5,496,900	$3,756,600	$106,450	$9,359,950	$2,361,515	$6,998,435
CVWD	128,450 AF	$13,640,850	$9,540,675	$127,425	$23,308,950	$5,880,848	$17,428,102
					$32,668,900	$8,242,363	$24,426,537
	2019						
DWA	55,750 AF	$5,232,225	$3,873,000	$161,975	$9,267,200	$2,338,115	$6,929,085
CVWD	128,450 AF	$12,984,375	$9,611,250	$401,975	$22,997,600	$5,802,294	$17,195,306
					$32,264,800	$8,140,409	$24,124,391
				TOTALS	$64,933,700	$16,382,773	$48,550,927
				Less Amount Billed Direct to CVWD			($46,306,550)
				Amount Due To DWA			$2,244,377
				ONE-HALF FOR FISCAL YEAR			$1,122,189

STATE WATER PROJECT TABLE A ALLOTMENTS:

DWA - 38,100 A.F. + MWD Transfer 11,900 A.F. = 50,000 A.F.
CVWD - 23,100 A.F. + MWD Transfer 88,100 A.F. + Tulare Transfer 9,000 A.F. = 121,100 A.F.
Beginning January 1, 2010 : Berrenda-Mesa 16,000 A.F. Transfer = DWA 4,000 A.F. / CVWD 12,000 A.F.
Beginning January 1, 2010 : Westlake Farms 7,000 A.F. Transfer = DWA 1,750 A.F. / CVWD 5,250 A.F.

Calendar years 2018 & 2019 = DWA 55,750 A.F. / CVWD 128,450 A.F.

DESERT WATER AGENCY - GENERAL FUND
2018-2019 BUDGET
CAPITAL IMPROVEMENTS

W.O. NO.	DESCRIPTION	ACCOUNT NO.	ESTIMATED COST
MISCELLANEOUS			
18-101-M	SNOW CREEK VILLAGE - SURFACE WATER TREATMENT FACILITY	11170	$2,300,000
18-170-L	LAND PURCHASE - DINAH SHORE PROPERTY	11157	$366,150
18-499	CONTINGENCY	VARIOUS	$150,000
	TOTAL MISCELLANEOUS		**$2,816,150**

RESERVE POLICY ANALYSIS
2018/2019 BUDGET

GENERAL FUND

In May 2006, the Board of Directors established a policy for Agency reserves (Resolution No. 926). Per section 5 of the policy, an annual review of the reserves will be presented during the annual budget presentation. Presented below is the reserve analysis:

STATE WATER CONTRACT FUND - RESERVE

Minimum reserve requirement is 2 ½ times prior year DWR Statement of Charges

2018 DWR STATEMENT OF CHARGES:		
Delta Capital	=	$1,149,114
Delta OMP&R	=	$2,607,469
Transportation Capital	=	$2,676,220
Transportation M&O	=	$4,418,812
Variable Entitlement	=	$5,525,296
Water System Revenue Bond	=	$1,064,379
Off Aqueduct	=	$106,445
Conservation Replacement	=	$0
East Branch Enlargement Capital	=	$1,282,658
East Branch Enlargement M&O	=	$284,068
Tehachapi Second Overbay	=	$96,534
TOTAL 2018 STATEMENT OF CHARGES	=	**$19,210,995**
2018 DWR CHARGES X 2 ½ TIMES	=	**$48,027,488**
2018/2019 Reserve Requirement	=	$48,027,500
2017/2018 Current Reserve Balance	=	$49,365,800
2018/2019 Reserve Adjustment *	=	<$1,383,300>
2018/2019 Reserve Balance	=	**$48,027,500**
2018/2019 Reserve Shortfall	=	$0

* Proposed <$1,383,300> decrease to the State Water Contract Fund in Fiscal 2018/2019

2018/2019 STATE WATER CONTRACT RESERVE = $48,027,500

RESERVE FOR CALIFORNIA WATER FIX (CFW)

Minimum reserve requirement for the next 10 years per DWR cost projections

10 year DWR cost projection	=	$35,262,100
2018/2019 Reserve Requirement	=	$35,262,100
2018/2019 Reserve Adjustment *	=	$14,519,000
2018/2019 Reserve Balance	=	$14,519,000
2018/2019 Reserve Shortfall	=	**<$20,743,100>**

* Proposed $14,519,000 addition to the California Water Fix Reserve in Fiscal 2018/2019

2018/2019 CALIFORNIA WATER FIX RESERVE = $14,519,000

RESERVE FOR ADDITIONAL WATER

Reserve requirement should be greater than prior year DWR Invoices

2018 DWR STATEMENT OF CHARGES:		
Delta Capital	=	$1,149,114
Delta OMP&R	=	$2,607,469
Transportation Capital	=	$2,676,220
Transportation M&O	=	$4,418,812
Variable Entitlement	=	$5,525,296
Water System Revenue Bond	=	$1,064,379
Off Aqueduct	=	$106,445
Conservation Replacement	=	$0
East Branch Enlargement Capital	=	$1,282,658
East Branch Enlargement M&O	=	$284,068
Tehachapi Second Overbay	=	$96,534
TOTAL 2018 STATEMENT OF CHARGES	=	**$19,210,995**
2018/2019 Reserve Requirement	=	$19,211,000
2017/2018 Current Reserve Balance	=	$19,626,000
2018/2019 Reserve Adjustment *	=	<$415,000>
2018/2019 Reserve Balance	=	**$19,211,000**
2018/2019 Reserve Shortfall	=	$0

* Proposed <$415,000> decrease to the Reserve for Additional Water in Fiscal 2018/2019

2018/2019 RESERVE FOR ADDITIONAL WATER = $19,211,000

RESERVE FOR OPERATIONS

Reserve should be equal to 6 months to 1 year of operations

2018/2019 Cost of Operations	=	$29,055,900
Less: 2018/2019 State Water Project M&O	=	<$19,208,200>
NET COST OF OPERATONS	=	**$9,847,700**
2018/2019 Reserve Requirement	=	$9,847,700
2017/2018 Current Reserve Balance	=	$8,238,200
2018/2019 Reserve Adjustment *	=	$1,609,500
2018/2019 Reserve Balance	=	**$9,847,700**
2018/2019 Reserve Shortfall	=	$0

* Proposed $1,609,500 addition to the Reserve for Operations in Fiscal 2018/2019

2018/2019 RESERVE FOR OPERATIONS = $9,847,700

RESERVE FOR REPLACEMENTS

Reserve should be equal to accumulated depreciation of assets (excluding State Water Project capital)

6/30/17 Audited Accumulated Depreciation	=	$96,505,554
LESS: SWP – Transportation	=	<$59,301,446>
SWP – Delta	=	<$12,338,345>
SWP – East Branch Enlargement	=	<$12,361,184>
SWP – Water System Revenue Bond	=	<$3,964,244>
SWP – Advance Water Deliveries	=	<$69,273>
SWP – Tehachapi Second Overbay	=	<$13,460>
NET ACCUMULATED DEPRECIATION	=	**$8,457,602**
2018/2019 Reserve Requirement	=	$8,457,600
2017/2018 Current Reserve Balance	=	$7,994,000
2018/2019 Reserve Adjustment *	=	$463,600
2018/2019 Reserve Balance	=	**$8,457,600**
2018/2019 Reserve Shortfall	=	$0

* Proposed $463,600 addition to Reserve for Replacements in Fiscal 2018/2019

2018/2019 RESERVE FOR REPLACEMENTS = $8,457,600

REGULATORY COMPLIANCE RESERVE

Maximum Reserve Requirement = $10,000,000

2018/2019 Reserve Requirement	=	$10,000,000
2017/2018 Current Reserve Balance	=	$9,500,000
2018/2019 Reserve Adjustment *	=	$500,000
2018/2019 Reserve Balance	=	**$10,000,000**
2018/2019 Reserve Shortfall	=	**$0**

* Proposed $500,000 addition to Regulatory Compliance Reserve in Fiscal 2018/2019

2018/2019 REGULATORY COMPLIANCE RESERVE = $10,000,000

LAND ACQUISITIONS RESERVE

Maximum Reserve Requirement = $5,000,000

2018/2019 Reserve Requirement	=	$5,000,000
2017/2018 Current Reserve Balance	=	$5,000,000
2018/2019 Reserve Adjustment *	=	$0
2018/2019 Reserve Balance	=	**$5,000,000**
2018/2019 Reserve Shortfall	=	$0

* No addition to Land Acquisition Reserve in Fiscal 2018/2019

2018/2019 LAND ACQUISITION RESERVE = $5,000,000

RESERVE POLICY SUMMARY

** Fiscal 2018/2019 Reserve Requirement	=	**$135,805,900**
Fiscal 2018/2019 Projected Total Reserves	=	**$115,062,800**
Fiscal 2018/2019 Projected Reserve Shortfall =	=	<20,743,100>

** Reserve Policy and Reserve Requirements (Resolution No. 926) Based on established ACWA and AWWA Policy Principles and Guidelines.

DESERT WATER AGENCY

WASTEWATER FUND BUDGET

2018 - 2019

DESERT WATER AGENCY
WASTEWATER FUND
2018-2019 BUDGET WITH PRIOR YEAR COMPARISON

	ACTUAL 2016-2017	ACTUAL TO 3/31/2018	BUDGET 2017-2018	OVER OR UNDER	BUDGET 2018-2019
OPERATING REVENUES:					
Capacity Charges	$46,200	$24,150	$15,750	$8,400	$27,000
Wastewater Service	$990,371	$691,755	$1,045,300	($353,545)	$1,084,200
Plan Check Fees/Inspection/Svc	$1,460	$280	$2,400	($2,120)	$1,800
TOTAL REVENUES	$1,038,031	$716,185	$1,063,450	($347,265)	$1,113,000
OPERATING EXPENSES:					
C.V.W.D. Wastewater Service	$597,327	$406,719	$664,800	($258,081)	$732,000
City of P.S. - Wastewater Service	$101,883	$72,342	$114,300	($41,958)	$133,400
Office Supplies & Expense	$1,656	$1,557	$2,100	($543)	$2,100
Meetings and Seminars	$0	$0	$0	$0	$0
Legal	$537	$148	$1,200	($1,052)	$900
Engineering	$53,797	$3,073	$3,000	$73	$5,100
Auditing	$2,200	$2,500	$2,400	$100	$2,800
Programming	$685	$510	$600	($90)	$600
Utilities	$6,524	$4,523	$6,900	($2,377)	$6,900
Insurance	$2,205	$1,712	$2,400	($688)	$2,400
Maintenance of Pumps	$0	$106	$1,200	($1,094)	$900
Maintenance of Laterals	$4,893	$1,987	$3,900	($1,913)	$3,600
Maintenance of Lift Stations	$29,762	$20,712	$30,000	($9,288)	$33,000
Maintenance of Mains	$101,295	$6,172	$87,000	($80,828)	$69,000
Tools & Work Equipment	$0	$0	$200	($200)	$200
Transportation Expense	$5,482	$779	$11,100	($10,321)	$9,900
Depreciation	$558,977	$0	$561,900	($561,900)	$566,400
TOTAL OPERATING EXPENSE	$1,467,223	$522,840	$1,493,000	($970,160)	$1,569,200
NET INCOME FROM OPER.	($429,193)	$193,345	($429,550)	$622,895	($456,200)
NON-OPERATING REVENUES					
Interest Short Term	$8,716	$11,188	$10,500	$688	$21,000
Contributed Revenue - Customer	$56,439	$98,958	$0	$98,958	$0
Other Income	$0	$0	$0	$0	$0
TOTAL NON-OPR. REV.	$65,155	$110,146	$10,500	$99,646	$21,000

DESERT WATER AGENCY
WASTEWATER FUND
2017-2018 BUDGET WITH PRIOR YEAR COMPARISON

	ACTUAL 2016-2017	ACTUAL TO 3/31/2018	BUDGET 2017-2018	OVER OR UNDER	BUDGET 2018-2019
NON-OPERATING EXPENSES					
Interest - General Fund Loan	$3,701	$0	$2,450	($2,450)	$1,200
Sewer Assessment Fees	$837	$400	$875	($475)	$850
Loss on Retirement	$0	$0	$0	$0	$0
Prior Year Expenses	$0	$0	$0	$0	$0
TOTAL NON-OPR. EXP.	$4,538	$400	$3,325	($2,925)	$2,050
TOTAL NET INCOME	($368,576)	$303,091	($422,375)	$725,466	($437,250)
APPLICATION OF COMMIT. FUNDS					
Principal - General Fund Loan	$0	$0	$25,000	($25,000)	$24,025
Principal - Operating Fund Loan	$0	$0	$0	$0	$0
TOTAL COMM. FUNDS	$0	$0	$25,000	($25,000)	$24,025
Balance Remaining	($368,576)	$303,091	($447,375)	$750,466	($461,275)
Add Back Depreciation Exp.	$558,977	$0	$561,900	($561,900)	$566,400
Funds Avail. Capital Add.	$190,401	$303,091	$114,525	$188,566	$105,125
LESS CAPITAL ADDITIONS:					
Lift Station - Generator Enclosure	$0	$0	$40,000	($40,000)	$0
Sewer Manhole Replacement	$0	$0	$81,500	($81,500)	$0
Contingency	$0	$0	$0	$0	$15,000
TOTAL CAPITAL ADDITIONS	$0	$0	$121,500	($121,500)	$15,000
BALANCE	$190,401	$303,091	($6,975)	$310,066	$90,125
TOTAL BUDGET			**$1,642,825**		**$1,610,275**

ESTIMATED RESERVE FUND BALANCE:

Estimated Reserve Fund Balance 6/30/18	$1,293,950
2018-2019 Budget Balance	$90,125
Required for 2017/18 Carryover Items	($173,000)
Estimated Reserve Fund Balance 6/30/19	$1,211,075

BUDGET AMOUNT SUMMARY:

Total Operating Expenses	$1,569,200
Total Non-operating Expenses	$2,050
Application of Committed Funds	$24,025
Capital Additions	$15,000
TOTAL BUDGET:	**$1,610,275**

DESERT WATER AGENCY - WASTEWATER FUND
2018-2019 BUDGET
CAPITAL IMPROVEMENTS

W.O. NO.	DESCRIPTION	ACCOUNT NO.	ESTIMATED COST
MISCELLANEOUS			
18-499	CONTINGENCY	VARIOUS	$15,000
	TOTAL MISCELLANEOUS		**$15,000**

8-D

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

JUNE 5, 2018

RE: REBATES IN FISCAL YEAR 2018-19 (POWERPOINT)

Each fiscal year, the Agency looks for ways to enhance its rebate program offerings given the current rebate experiences and suggestions from the community. While no new programs are currently planned, there are some modifications to the programs aimed at bettering them for both participants and the Agency.

The Agency looks forward to increasing participation in its programs and bringing more attention to its focus on sustainability. The Agency also commends Competitive Power Ventures, the parent company for the Sentinel plant, for helping fund these water-saving programs.

Staff will present an overview of the changes that were reviewed by the Conservation & Public Affairs Committee on April 30.

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

JUNE 5, 2018

RE: SPRING CREST WATER COMPANY

General Manager Krause was recently contacted by Steven Murphy, the Secretary of the Spring Crest Community Water Company (Spring Crest). This small community water system is located off of highway 74 near Pinyon Pines, within the Agency's boundaries. They are interested in having the Agency help with their water system.

Spring Crest's system was abandoned by its owner Harry F Chaddic after he died, around 1995. The Agency's relationship with Spring Crest dates back to approximately 1996, when they received a citation from the Riverside County Department of Environmental Health for non-compliance to "provide a reliable and adequate supply of pure, wholesome, healthful, and potable water". At that time, the Agency was merely being notified by the county as a local agency with jurisdictional authority. The County filed a complaint against Spring Crest in 1997. There were many questions about who actually owned the system after the original owner passed away. The RJD limited company had intended to buy the water system and provided funds for the company to operate for 10 years but failed to obtain shares to purchase the company starting in 1986. Therefore, the court recognized RJD as the official operator of the system, but not the owner.

RJD hired a Spring Crest resident and water customer Terry Lane to be the Operating Manager. Terry had problems maintaining the system so the court encouraged the parties to reach out to the Agency for assistance. Our records indicate that the Riverside Department of Health contacted the Agency in December of 1999 asking for help. Staff engaged and surveyed their system to ascertain its condition and made an estimate of repair costs.

Discussions continued through the year 2001 regarding DWA assuming control and operation of the Spring Crest Water Company water system. At a minimum, the Agency wanted fee title to all water supply production facilities, sites, storage tanks, easements and pipelines and all the available funds that the Riverside Health Department had available for the system. All the while the Agency assessed the system and tried to determine a cost of operation and maintenance and a financial strategy to pay for these

costs. It was eventually determined that it would cost approximately $53,000 to bring the system up to minimal operating conditions not including painting and coating the two steel reservoirs. By including the reservoir maintenance costs the estimate increased to $143,000. The cost recovery alternatives required spreading the cost equally to each customer over a 3-5 year period using interest rates from 0-5%.

Discussions continued into the year 2002, which included presentations to the Agency Board and meetings with Spring Crest and their customers. The PUC also became involved and there was apparently a new owner of the system, Lennar. The transaction appeared to be getting more complex and there was some indication that the new owner might step in and solve the problems. At this point, Agency records stop and no action was ever taken. Terry Lane has since passed away and there is new leadership running Spring Crest. They are once more reaching out to the Agency, to operate their system and perhaps own it.

At the time of our original discussion in 1995 there were 16 residences connected to the system. There are now only 10, with the other 6 having drilled their own wells for water supply. Mr. Murphy called stating that he and the other residents were concerned about the water system condition and the ability to maintain it. He also indicated that they did not have any of their horizontal wells running and had only one well currently operational. I have indicated to Mr. Murphy that I would discuss their case with the Agency Board before proceeding. If authorized, the next step would be to survey the condition of their system again and estimate the cost of operation and maintenance. This may require a substantial amount of staff time.

DESERT WATER AGENCY
MEDIA INFORMATION
MAY 2018

DATE	PACKET PAGE	MEDIA SOURCE	ARTICLE
05/03/18	1	THE DESERT SUN	Water District Delays Vote On Tunnel System
05/20/18	2-3	LOS ANGELES TIMES	2 Bill Target Water Usage
05/27/18	4	THE DESERT SUN	Desert Water Agency Pipeline Replacements Will Affect Summer Traffic In Palm Springs

Desert Sun.
PART OF THE USA TODAY NETWORK

Water district delays vote on tunnel system

ASSOCIATED PRESS

SAN JOSE – May 3, 2018

A Northern California water agency heard hours of public comment Wednesday on whether to give its full support to Gov. Jerry Brown's plan to build two multibillion dollar massive tunnels to remake the state's water system, before choosing to delay the vote until a special meeting May 8.

Support from the Santa Clara Valley Water District board could renew momentum behind one of the Democratic governor's top priorities as he prepares to leave office. The water district's potential reversal comes just weeks after a state water commission backed funding for a reservoir expansion that is a high priority for the area. Under a previous recommendation, the project wasn't eligible for money.

Brown wants to build two, 35-mile tunnels to divert water from the north to Southern California and the San Joaquin Valley.

He argues the twin tunnels will modernize California's water delivery system. But environmental groups fear it would drain too much water from the Sacramento River.

The Santa Clara water district in October approved only a limited role in the project, committing money for a scaled back project featuring just one tunnel. Staff now recommends the board change course and throw its full support behind the project by committing up to $650 million to the construction of both tunnels.

The reversal comes less than two weeks after the California Water Commission staff released a favorable assessment about the public benefits of the district's Pacheco Reservoir expansion project, for which it is seeking $485 million. The commission's staff earlier determined the project wasn't eligible for funds. It was one of five projects found to be worthy of money after they were originally rejected.

The Water Commission consists of Brown appointees who can distribute $2.6 billion from a water bond approved by voters in 2014. It has not made a final decision on the Pacheco Reservoir project.

Water district staff estimates fully funding the tunnels would add $10.26 to each household's monthly water bill in northern Santa Clara County. Residents further south would pay an estimated $4.47 more monthly.

"I think they're being pressured by the governor's office," Barbara Barrigan-Parilla of the anti-tunnels group Restore the Delta.

It's false to suggest the district is reconsidering its position because of potential reservoir funding, Marty Grimes said, a spokesman for the water district. The original position to back one tunnel came after large users in California's Central Valley agricultural heartland rejected the project, putting its financing in doubt, Grimes said.
But when the large Metropolitan Water District in Southern California voted to fund the bulk of the project last month, calculations changed, he said.

"The board needs to reconsider that reality," Grimes said.

The MWD, which supplies water to19 million people in the Los Angeles and San Diego areas, approved $10.8 billion in funding for the project, which is expected to cost nearly $17 billion in total.

Los Angeles Times

2 bills target water usage

Measures to conserve water get tepid response Measures could lead to individual water budgets for more than 400 agencies in state.

By Bettina Boxall, May 20, 2018

California cities and towns may find themselves on a water budget in the next decade under a pair of bills approved in recent days by the legislature.

The measures follow Gov. Jerry Brown's call to make water conservation a permanent way of life in a state long accustomed to jewel-green lawns and suburban tracts studded with swimming pools.

More than a year of legislative negotiations reflected the enduring conflicts over state and local control.

Though the bills establish a framework to end excessive urban water use, the proposals were substantially weakened by a series of amendments sought by water districts.

"I would say it was amended with so many exceptions and so many carve-outs ... that I have serious doubts that it's going to reduce water use or lead to more efficient use," said Matt O'Malley, executive director of San Diego Coastkeeper, an environmental group.

Sen. Bob Hertzberg (D-Van Nuys), co-sponsor of one of the bills, said that despite necessary compromises, the measures approved Thursday represented a "gigantic move forward" in the state's approach to urban water use.

"Instead of having a governor that [issues] emergency orders when we have a drought, it sets standards in terms of indoor, outdoor water use and enforcement. So we're not just engaged in crisis management all the time."

Under the bills, which Brown is expected to sign, the state will set standards that will be used to create individual water budgets for the more than 400 water agencies that distribute supplies to cities and towns.

The budgets will in essence set a target for how much water a district should use in a year, taking into account such factors as the local climate, amount of irrigated landscape and population.

How the local districts meet the targets will be up to them. The budgets will be developed over the next several years, based on standards for indoor and outdoor use as well as leakage from water distribution systems.

If an agency doesn't meet its target, the State Water Resources Control Board can start issuing conservation orders after July 1, 2026.

A clause that would have allowed the board to issue cease-and-desist orders was dropped. But starting in late 2027, the board can impose fines of $1,000 a day on agencies that violate orders.

"This is the first legislation with a threat of a fiscal penalty," said Tracy Quinn, California water conservation director for the Natural Resources Defense Council, an environmental group.

"While it may not be the giant leap we were hoping for when we started this process, it's definitely a step in the right direction," she added.

The approach departs from the one taken during California's five-year drought, when Brown issued an unprecedented order to cut the state's overall urban water use by 25%.

Water districts complained that the order treated all districts the same, whether they were water hogs or models of conservation.

The mandate ended when Brown declared the drought over last year, but the governor directed state agencies to develop permanent urban conservation measures. The legislation is a step in that process.

Water districts and environmental groups were split on the bills, according to a legislative listing of supporters and opponents.

Supporters included the Metropolitan Water District of Southern California and Los Angeles, the Pacific Institute and the NRDC.

Opponents included numerous water districts across the state, which considered the measures overreach, as well as environmental groups such as the Sierra Club of California and the California Coastkeeper Alliance, which argued they didn't go far enough.

"It's really death by a thousand cuts," said Sara Aminzadeh, executive director of the Coastkeeper Alliance.

She complained that the indoor use standard was too high.

The measure sets an initial indoor standard of 55 gallons per person per day — which Aminzadeh said the vast majority of water suppliers already meet. The number drops to 52.5 gallons in 2025, and to 50 gallons in 2030.

The Sierra Club and the Coastkeeper alliance also objected to an amendment favoring water districts that include recycled water in their potable supplies. They can increase their annual water budget by 10% to 15%.

"We felt it was really bad public policy to set a precedent where uses of certain supplies... could essentially be wasted," Aminzadeh said. "

Desert Sun.
PART OF THE USA TODAY NETWORK

Desert Water Agency pipeline replacements will affect summer traffic in Palm Springs

Colin Atagi, May 27, 2018

Desert Water Agency will launch a pipeline replacement project that's expected to affect Palm Springs traffic from June through November.

For the most part, work is happening on residential streets and most travelers probably won't even be affected. But one portion will happen on a major thoroughfare and that's likely to impact the masses.

The first phase is on Via Miraleste and Cottonwood, Chaparral and Chuckwalla roads in the area directly south of Vista Chino and east of Indian Canyon Drive. Work will happen in June and July.

That'll be followed in July and August by the phase that's likely to affect most of you. A pipeline is being replaced on Ramon Road, between El Cielo Road and Calle Santa Cruz.

Finally, beginning in August, there will be work on Racquet Club Road and Francis Drive, both between Indian Canyon and North Starr Road. That same stretch of Starr, between Racquet Club and Francis, also will be under construction.

Likewise, Laurel, Sycamore, Desert Willow and Desert Holly circles will be impacted in that area.

According to DWA staff, the project is necessary because pipes date back to the mid-1900s and leakage issues have been significant.

It's one of multiple projects scheduled to take place across the Coachella Valley during the summer months. As most people know, many people have taken off for the warm months and local agencies take advantage of having fewer cars on the road.

In the coming days and weeks, don't be surprised to hear about more major road closures across the desert.

DESERT WATER AGENCY

OUTREACH & CONSERVATION ACTIVITIES

May 2018

Activities:

5/03	DWA hosted a class from the University of Redlands for a facilities tour.
5/03	Ashley Metzger was on a live segment with KESQ about spring cleaning tips.
5/03	Ashley Metzger was interviewed on the Joey English radio show.
5/08	Ashley Metzger and Vicki Petek conducted a water audit for Canyon Estates.
5/10	Ashley Metzger was on a live segment with KESQ about National Drinking Water and Community Service week.
5/12	Ashley Metzger and Suzie Tolksdorf Staffed a table and provided water and information at the Palm Springs Farmer's Market.
5/17	Ashley Metzger was on a live segment with KESQ promoting Rethink Your Drink.
5/18	Ashley Metzger attended Leadership Coachella Valley.
5/20	Ashley Metzger and Suzie Tolksdorf staffed a table and provided water and information at the Dream Homes Community Engagement Health Fair at Agua Caliente Elementary School.
5/20	Suzie Tolksdorf provided conservation and rebate program information at Lowe's.
5/28	DWA provided the water trailer and cups for the Palm Springs Air Museum Memorial Day event.
5/31	Vicki Petek completed 1 sprinkler nozzle inspection.
5/31	Suzie Tolksdorf was on a live segment with KESQ about summer irrigation tips.

Public Information Releases/eBlasts:

May 07: DWA announces 2018 pipeline replacements – Website
May 08: National Drinking Water Week – Website
May 09: Public Service Recognition Week – Website
May 14: Rethink Your Drink – Website
May 22: Local Agencies Warn Community About Dangers of Rapid Flows at Whitewater River – Press Release, Website

Upcoming Events

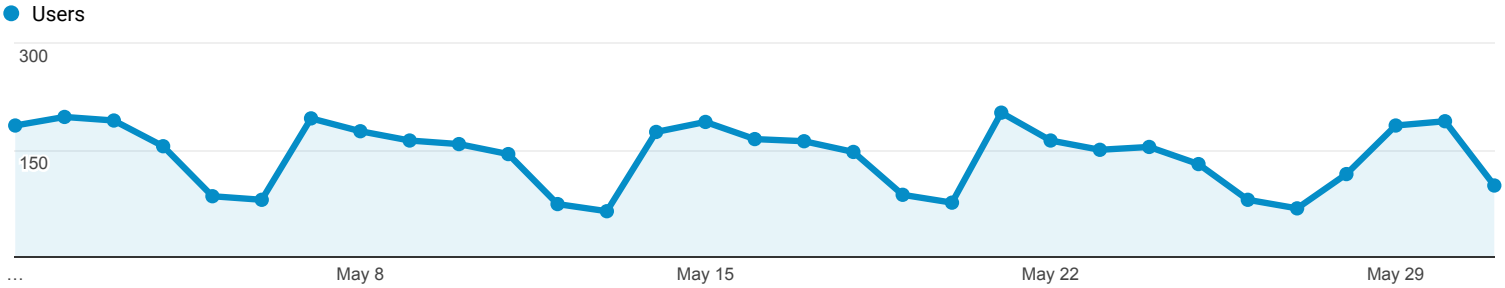
June 16: 8:00 to 12:30 – DWA at the Palm Springs Farmer's Market @ Palm Springs Pavilion Building

Audience Overview

All Users
100.00% Users

May 1, 2018 - May 31, 2018

Overview



Users
3,757

New Users
3,110

Sessions
4,810

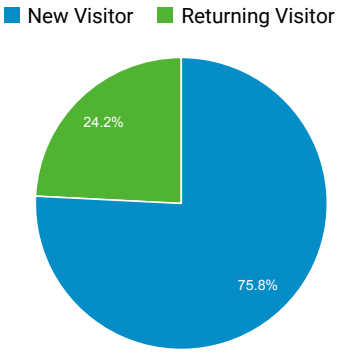
Number of Sessions per User
1.28

Pageviews
11,424

Pages / Session
2.38

Avg. Session Duration
00:02:04

Bounce Rate
46.26%



	Language	Users	% Users
1.	en-us	3,547	94.39%
2.	en-ca	53	1.41%
3.	en-gb	35	0.93%
4.	fr	21	0.56%
5.	ko	11	0.29%
6.	en	9	0.24%
7.	de-de	8	0.21%
8.	es-us	8	0.21%
9.	es-xl	7	0.19%
10.	en-au	6	0.16%

Desert Water Agency
Facebook Analytics
May 2018

Actions on Page
May 3 - May 30

We don't have data to show you this week.

Page Views
May 3 - May 30

91
Total Page Views ▲ 18%

Page Previews
May 3 - May 30

7
Page Previews ▼ 22%

Page Likes
May 3 - May 30

6
Page Likes ▲ 20%

Reach
May 3 - May 30

1,789
People Reached ▲ 241%

Recommendations
May 3 - May 30

We don't have data to show you this week.

Post Engagements
May 3 - May 30

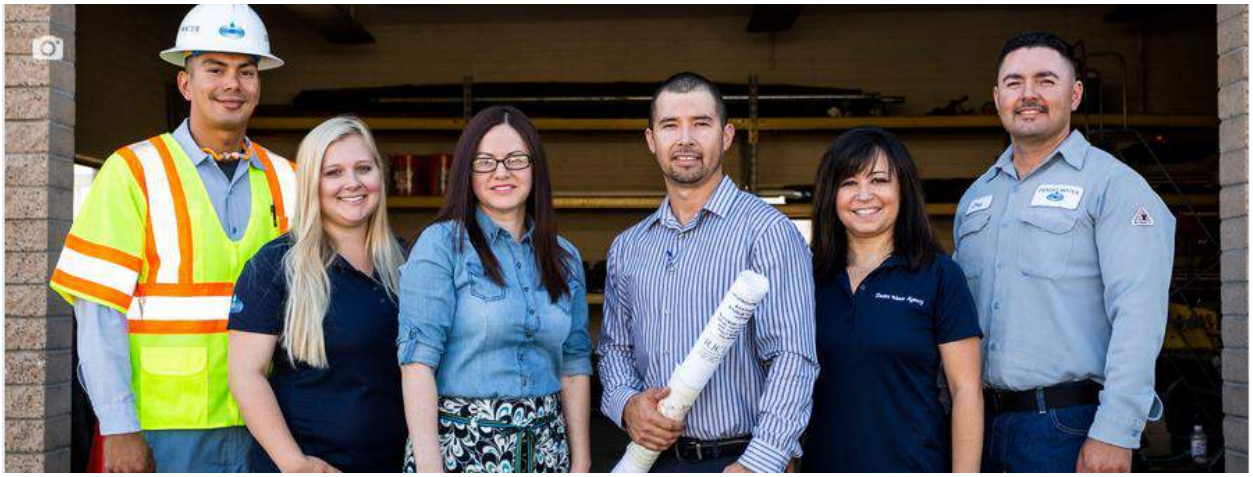
298
Post Engagement ▲ 60%

Videos
May 3 - May 30

20
Total Video Views ▼ 77%

Page Followers
May 3 - May 30

6
Page Followers ▲ 0%



Published ▼	Post	Type	Targeting	Reach	Engagement	Promote
05/30/2018 3:43 pm	Timeline Photos			61	1 5	Boost Post
05/28/2018 6:35 am	We honor the men and women who have sacrificed their lives s			72	8 4	Boost Post
05/25/2018 6:40 am	Enjoy the water at Whitewater Pr eserve but stay out of the river an			63	0 1	Boost Post
05/20/2018 9:08 am	Stop by the Cathedral City Com munity Engagement Health Fair t			92	6 3	Boost Post
05/18/2018 8:30 am	Kiwi, watermelon and lime water is a great way to rethink sugary tr			74	2 2	Boost Post
05/17/2018 8:30 am	Rethink Your Drink today with ras pberry, ginger and mango water!			80	4 4	Boost Post
05/16/2018 12:57 pm	This program gives us somethin g to look forward to during the D			32	10 5	Boost Post
05/16/2018 8:30 am	Rethink Your Drink today and try t his herb and fruit infusion of lem			90	5 4	Boost Post
05/15/2018 8:30 am	Lemon, strawberry and basil wat er is our Rethink Your Drink choi			85	5 5	Boost Post
05/14/2018 2:00 pm	Desert Water Agency customers used 20% less water last month			70	4 4	Boost Post
05/14/2018 9:44 am	We are posting delicious infuse d water recipes this week for Ret			93	6 2	Boost Post
05/13/2018 10:30 am	Wishing all moms a day of peac e and love.			77	0 3	Boost Post

05/12/2018 10:42 am	Enjoying the lovely weather and good company at the Palm Sprin			114		7 5	Boost Post
05/11/2018 9:35 am	It's National Public Gardens Day. We've fallen in love with our new			107		4 6	Boost Post
05/10/2018 10:40 am	We're grateful to our team and th ose we work with to make our co			90		1 4	Boost Post
05/09/2018 9:44 am	It is Drinking Water Week. Now's a great time to learn about wher			299		10 11	Boost Post
05/08/2018 3:43 pm	If you missed it on the airwaves, tune in!			35		16 7	Boost Post
05/05/2018 10:00 am	Happy Cinco de Mayo! Have fun, be safe and stay hydrated.			99		2 6	Boost Post
05/04/2018 9:39 am	For all of us Star Wars lovers out there...			117		3 5	Boost Post
05/03/2018 2:18 pm	Students from the University of R edlands stopped by for a tour of			1.4K		60 18	Boost Post
05/02/2018 7:59 am	Soak it up.			150		12 9	Boost Post

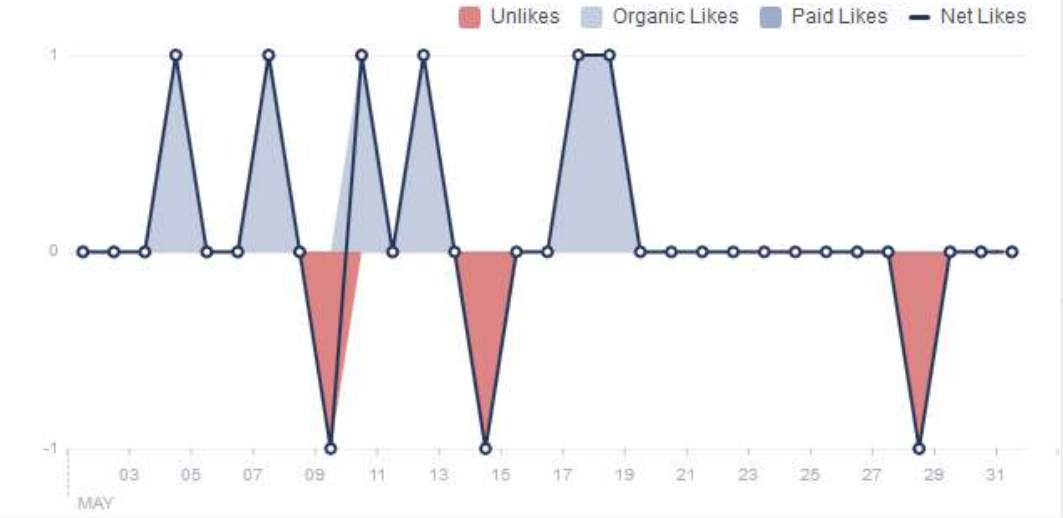
Total Page Likes as of Today: 1,122

BENCHMARK
Compare your average performance over time.

Total Page Likes

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

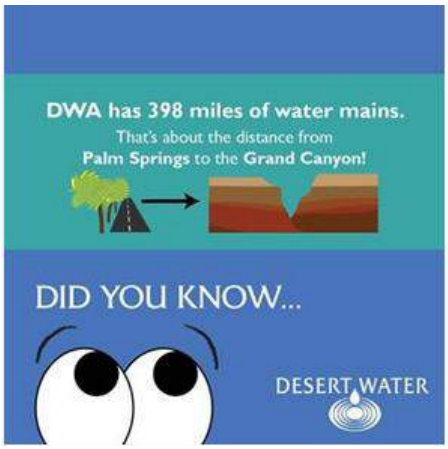
WANT MORE LIKES?
Create an ad to get more people to like your Page.

Promote Page

desertwateragency Edit Profile

175 posts 393 followers 155 following

Desert Water Agency Desert Water Agency serves water in Palm Springs & part of Cathedral City. We replenish the aquifer and offer programs to encourage efficiency.
www.dwa.org



13 likes

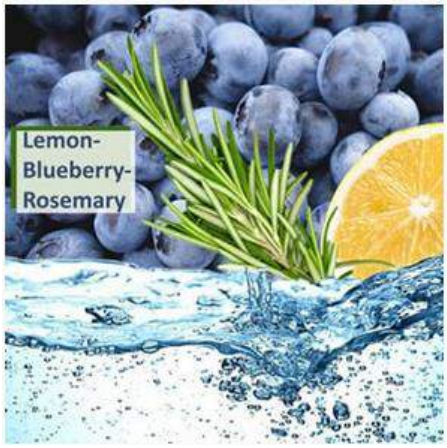
15 likes

24 likes

22 likes

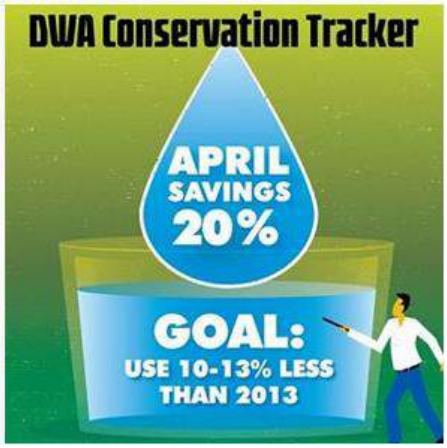
11 likes

16 likes



23 likes

17 likes, 1 comment



12 likes

Desert Water Agency Twitter Analytics May 2018

May 2018 · 30 days so far...

TWEET HIGHLIGHTS

Top Tweet earned 650 impressions

Good question! Yes and no. They are part of @mwdh2o's Colorado River Aqueduct. They do get water to our region to replenish our aquifer. @mwdh2o is a great partner and just gave us a tour of the CRA - very interesting! twitter.com/ps92264/status…

1 1 5

View Tweet activity | View all Tweet activity

Top Follower followed by 6,693 people

TJ Stein
@steinentgrp FOLLOWS YOU

TJ Stein, Team Stein #Actor #Talent Management Representation; #FILM, #TELEVISION. #Entertainment #blog! http://t.co/fFV9VGh5JE #talent #actorreps

View profile | View followers dashboard

Top mention earned 5 engagements

Tom L
@ps92264 · May 7

@DWAwater Are those huge pipe system that you visibly can see from From The Highway 10 E towards AZ part of DWA & CVWA ?

View Tweet

Top media Tweet earned 521 impressions

We are posting infused water recipes this week for Rethink Your Drink Day. Infused water is a healthy alternative to sugary drinks. Try cucumber, honeydew and mint water!
5 cups water
1/2 cup of honeydew cubes
1 cucumber sliced
10 fresh mint leaves, tear into pieces
Steep 4 hrs pic.twitter.com/XsQHFmt0pd

1 4

MAY 2018 SUMMARY

Tweets 24	Tweet impressions 9,849
Profile visits 543	Mentions 4
New followers 13	