

FY  
2018

# QSA JPA Fiscal Year 2018 Budget and Work Plan

ADOPTED  
MAY 17, 2017



---

QUANTIFICATION SETTLEMENT AGREEMENT JOINT POWERS AUTHORITY |

4677 OVERLAND AVE, SAN DIEGO, CA 92123

## TABLE OF CONTENTS

Section 1: Background .....	1
Section 2: Budget Overview .....	2
Section 3: Review of Activities in FY 2017 and FY 2016 .....	3
Section 4: FY 2018 Budget .....	5
Section 5: FY 2018 Work Plan .....	7
Figure 1. QSA JPA Organization Chart .....	1
Table 1. Water Agency Remaining Payment Schedule .....	2
Table 2. Detailed FY 2017 Expenditures .....	3
Table 3. FY 2017 Budget Summary .....	4
Table 4. FY 2017 Projected Fund Balance .....	4
Table 5. Summary of Mitigation Contributions by Water Agency .....	5
Table 6. FY 2018 Projected Fund Balance .....	5
Table 7. Detailed FY 2018 Expenditures .....	6
Table 8. Major Expenditures in FY 2018 .....	7

## APPENDIX 1: AUDITED HISTORICAL QSA JPA SPENDING, FY 2004-FY 2016

A1

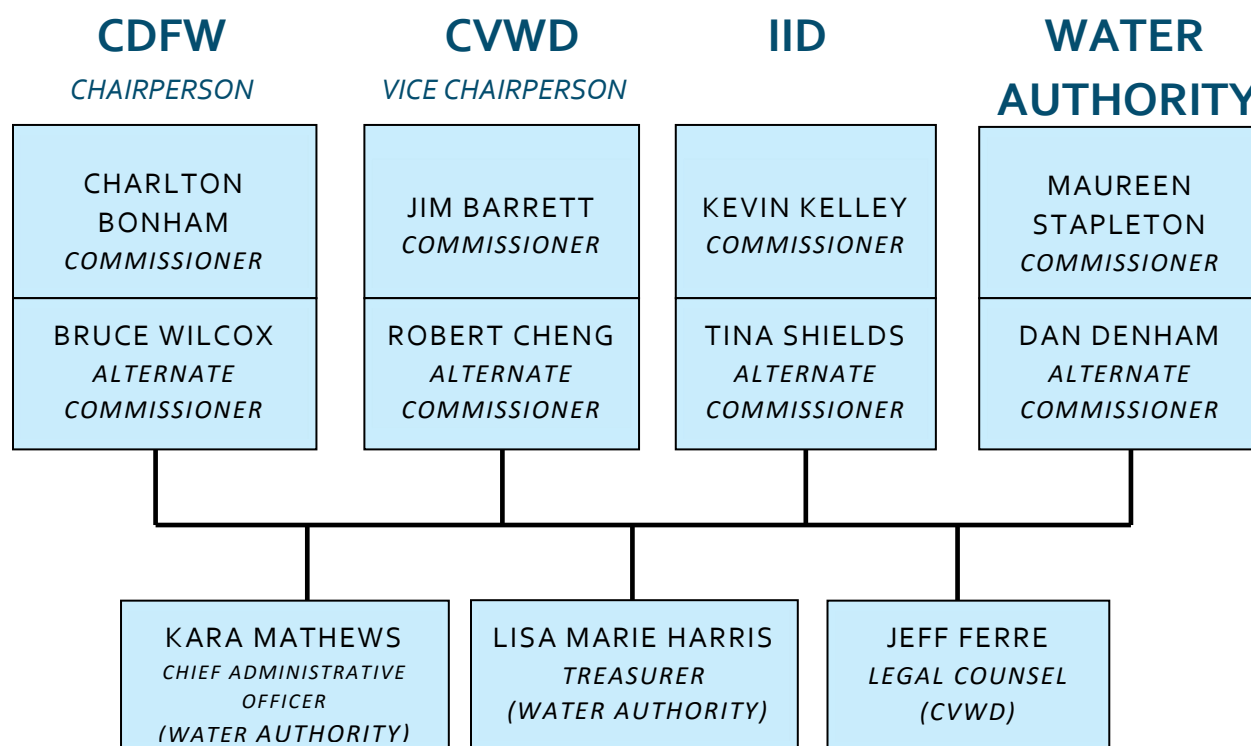
## APPENDIX 2: WORK PLAN BY MITIGATION TASK

A2

# QSA JPA FISCAL YEAR 2018 BUDGET

## SECTION 1: BACKGROUND

The Quantification Settlement Agreement Joint Powers Authority (QSA JPA) administers funding of environmental mitigation requirements related to QSA water transfers. The QSA JPA collects, holds, invests, and disburses funds needed for the mitigation projects. The QSA JPA is comprised of designated representatives from the California Department of Fish and Wildlife (CDFW), Coachella Valley Water District (CVWD), Imperial Irrigation District (IID), and San Diego County Water Authority (Water Authority) that serve as Commissioners and staff. Figure 1 shows the current organization chart.



**Figure 1. QSA JPA Organization Chart**

CVWD, IID, and the Water Authority are required to provide up to \$133 million (in 2003 dollars) to pay for the QSA JPA mitigation program. Under the terms of the *Quantification Settlement Agreement Joint Powers Authority Creation and Funding Agreement* (JPA Agreement), the collective financial obligation of the water agencies is capped at \$133 million, and the State of California is responsible to pay for any QSA water transfer environmental mitigation costs that exceed \$133 million.

## SECTION 2: BUDGET OVERVIEW

The QSA JPA Commission adopts an annual budget for the payment of environmental costs for QSA water transfer mitigation projects in the Imperial Valley. The budget is developed by IID in coordination with the QSA Implementation Team (IT), which consists of CDFW, IID, and the U.S. Fish and Wildlife Service (USFWS). The annual budget provides revenues generated from agency contributions and interest earnings to meet anticipated fiscal year mitigation expenditures. Mitigation projects are implemented by IID under direction from the IT. Specific mitigation measures are implemented per environmental permitting requirements and involve various timeframes for completion. Detailed QSA JPA annual spending through FY 2016 by mitigation task is provided in Appendix 1.

The JPA Agreement provides a schedule of annual agency contributions that are due on December 31 of each calendar year. As a means of managing cash flow requirements for future mitigation activities, the JPA Agreement permits agencies to adjust their payment schedules by rescheduling future payments from outer years to the near term. Under the *Modification of Payment Schedules Pursuant to the QSA JPA Agreement* (Advanced Funding Agreement), advanced payments by the agencies are due on July 1 and are discounted at six percent from the date of the scheduled payment to the date of the advance. The QSA JPA has advanced payments from the original JPA Agreement payment schedules to cover expected environmental mitigation expenses. In 2007, the water agencies modified their payment schedules to advance \$13.2 million in FYs 2007 and 2008 to cover mitigation requirements through 2013. In 2015, the Board of Directors of the individual water agencies authorized advanced payments to the QSA JPA totaling \$40.5 million, consisting of \$10 million from the Water Authority, \$5 million from CVWD, and \$25.5 million from IID, scheduled over six years beginning in FY 2016. The remaining payments per the 2015 Advanced Funding Agreement are shown in Table 1.

**Table 1. Water Agency Remaining Payment Schedule**

Year	CVWD		IID		WATER AUTHORITY		TOTAL PAYMENTS	
	Due 12/31	Due 7/1	Due 12/31	Due 7/1	Due 12/31	Due 7/1	By Calendar Year	By Fiscal Year
2017	\$ 5,531,599	\$ 500,000	\$ 1,987,469	\$ 4,250,000	\$ 8,314,814	\$ 1,850,000	\$ 22,433,882	\$ 24,912,833
2018	\$ 5,195,516	\$ 500,000	\$ 2,261,221	\$ 3,500,000	\$ 6,914,667	\$ 1,750,000	\$ 20,121,404	\$ 22,433,882
2019	\$ 745,350	\$ 1,000,000	\$ 2,473,610	\$ 2,800,000	\$ 1,060,053	\$ 1,750,000	\$ 9,829,013	\$ 20,121,404
2020	\$ 738,869		\$ 2,726,346	\$ 1,825,000	\$ 1,050,836	\$ 850,000	\$ 7,191,051	\$ 9,829,013
2021	\$ 2,697,555		\$ 2,885,115	\$ 1,500,000	\$ 3,801,632		\$ 10,884,302	\$ 7,191,051
2022	\$ 2,706,745		\$ 3,309,240		\$ 1,517,597		\$ 7,533,582	\$ 10,884,302
2023	\$ 2,733,006		\$ 4,746,284		\$ 1,221,837		\$ 8,701,127	\$ 7,533,582
2024	\$ 151,876		\$ 4,888,673		\$ 1,345,439		\$ 6,385,989	\$ 8,701,127
2025	\$ 565,131		\$ 5,035,333		\$ 1,047,693		\$ 6,648,157	\$ 6,385,989
2026			\$ 5,186,393				\$ 5,186,393	\$ 6,648,157
2027			\$ 5,341,985				\$ 5,341,985	\$ 5,186,393
2028			\$ 5,502,244				\$ 5,502,244	\$ 5,341,985
2029			\$ 5,130,911				\$ 5,130,911	\$ 5,502,244
2030			\$ 5,308,589				\$ 5,308,589	\$ 5,130,911
2031			\$ 5,322,392				\$ 5,322,392	\$ 5,308,589
2032			\$ 4,556,924				\$ 4,556,924	\$ 5,322,392
2033			\$ 6,005,020				\$ 6,005,020	\$ 4,556,924
2034			\$ 5,643,731				\$ 5,643,731	\$ 6,005,020
2035			\$ 5,143,974				\$ 5,143,974	\$ 5,643,731
2036								\$ 5,143,974
<b>Total</b>	<b>\$ 21,065,647</b>	<b>\$ 2,000,000</b>	<b>\$83,455,454</b>	<b>\$13,875,000</b>	<b>\$ 26,274,569</b>	<b>\$ 6,200,000</b>	<b>\$ 152,870,670</b>	<b>\$ 177,783,503</b>

### SECTION 3: REVIEW OF ACTIVITIES IN FY 2017 AND FY 2016

On May 9, 2016, the QSA JPA Commission adopted the FY 2017 budget in the amount of \$29,278,499. Table 2 shows the FY 2017 approved and projected budget spending, based on approved invoice totals to date and remaining fiscal year projections by IID. Projected FY 2017 expenditures by mitigation task are shown in Table 2. There have been no amendments to the budget, and the total FY 2017 budget is expected to remain the same through the end of the fiscal year. Major expenses in the FY 2017 budget include mitigation water to the Salton Sea (Task 5) and implementing the air quality mitigation program (Task 24). The budget includes line item transfers between environmental mitigation task items to increase total funding for management and planning (Task 35) and Willow Flycatcher surveys (Task 30). Funding for the transfers will be generated from savings and delays in other tasks, and will not result in an overall increase in the budget.

**Table 2. Detailed FY 2017 Expenditures**

TASK	TASK DESCRIPTION	PROJECTED FY-2017	BUDGETED FY-2017	BUDGET SAVINGS
2	QSA Implementation Team Biologists	\$813,916	\$967,862	\$153,946
3	Environmental Reporting and Monitoring	\$500	\$500	\$0
4	Salton Sea Salinity and Elevation Program	\$0	\$6,500	\$6,500
5	Salton Sea Mitigation Water to Salton Sea	\$18,412,464	\$18,412,467	\$3
6	Tamarisk Scrub Habitat - Surveys and Mitigation	\$0	\$75,900	\$75,900
8	Drain Habitat (Aquatic) - Create/Manage/Monitor "Managed Marsh" Areas	\$306,264	\$572,300	\$266,036
10/10a	Worker Education Program Training and Manual	\$0	\$10,500	\$10,500
11	Desert Habitat Survey and Mapping of Right of Way	\$0	\$16,800	\$16,800
12	Desert Habitat Create/Maintain Desert Habitat	\$0	\$100,000	\$100,000
15	Pre-Construction Burrowing Owl Surveys/Relocation	\$3,540	\$19,950	\$16,411
16	Burrowing Owl Relative Abundance Surveys	\$20,000	\$355,000	\$335,000
17	Farmer and Public Education Program	\$0	\$7,000	\$7,000
18	Desert Pupfish Abundance and Distribution Study	\$0	\$15,350	\$15,350
19/19A	Pupfish Selenium Drain Studies	\$46,620	\$114,400	\$67,780
20	Pupfish Conservation Measures	\$0	\$40,000	\$40,000
21	Salvage of Razorback Suckers when Dewatering Canals	\$0	\$500	\$500
23	Covered Species Baseline and Monitoring Surveys	\$3,000	\$128,000	\$125,000
24	Salton Sea Air Quality	\$4,942,483	\$8,320,500	\$3,378,017
29	Management Plan for Abandoned Portions of AAC	\$0	\$21,000	\$21,000
30	Southwestern Willow Flycatcher Surveys/Monitoring	\$2,000	\$0	(\$2,000)
35	Management and Planning	\$25,475	\$18,870	(\$6,605)
36	JPA Audit Fees	\$12,147	\$12,400	\$253
37	JPA Bank Fees	\$1,024	\$1,600	\$576
43	Salton Sea Shoreline Strand Study	\$0	\$20,000	\$20,000
44	Pupfish Refugium	\$2,000	\$31,600	\$29,600
45	Recreation Facilities at Salton Sea	\$6,565	\$9,500	\$2,935
<b>Total</b>		<b>\$24,597,997</b>	<b>\$29,278,499</b>	<b>\$4,680,502</b>

The projected budget savings and delayed expenditures for FY 2017 of \$4,680,502 is mostly due to the deferral of items included for the air quality mitigation program (Task 24), deferral of baseline monitoring and surveys (Task 23), and postponement of burrowing owl abundance surveys (Task 16). Table 3 summarizes the FY 2017 budget projections.

**Table 3. FY 2017 Budget Summary**

ADOPTED FY 2017 BUDGET	PROJECTED FY 2017 EXPENDITURES	PROJECTED FY 2017 SAVINGS/DELAYS
\$ 29,278,499	\$ 24,597,997	\$ 4,680,502

On October 5, 2016, the QSA JPA Commission accepted an audit of its basic financial statements by MGO Certified Public Accountants for the fiscal years ending June 30, 2016 and 2015. Audited FY 2016 environmental mitigation expenditures totaled \$21,389,559. Based upon the audited cash balance of \$13,648,183 at the end of FY 2016; FY 2017 projected agency contributions and interest earnings of \$24,997,833; and projected FY 2017 budget spending of \$24,597,997, the QSA JPA expects to have a positive cash balance of \$14,048,019 at the end of FY 2017 (Table 4).

**Table 4. FY 2017 Projected Fund Balance**

DESCRIPTION			CASH FLOW
FY 2016 Audited Fund Balance (6-30-16)			\$13,648,183
Sources	Mitigation Contributions	\$24,912,833	\$24,997,833
	Interest Income	\$85,000	
Uses	Environmental Mitigation		(\$24,597,997)
FY 2017 Projected Fund Balance (6-30-17)			\$14,048,019

## SECTION 4: FY 2018 BUDGET

The FY 2017 budget provides projected revenues of \$24,997,833 to meet anticipated expenditures from July 1, 2016 through June 30, 2017 of \$24,597,997, resulting in a net gain of \$399,836 from the previous fiscal year. FY 2018 will begin with the projected year-end FY 2017 fund balance of \$14,048,019.

Information summarizing the FY 2018 Budget is presented in Tables 5 and 6. Table 5 provides the agency contributions scheduled for FY 2018 per the 2015 Advanced Funding Agreement, as well as funding contributions by agency through FY 2017. Revenue sources for FY 2018 include funding contributions of \$22,244,882 from the water agencies and interest income estimated at \$70,000.

**Table 5. Summary of Mitigation Contributions by Water Agency**

AGENCY	CONTRIBUTIONS THROUGH FY 2017		FY 2018 CONTRIBUTIONS	
CVWD	\$	43,860,295	\$	5,695,516
IID	\$	29,391,162	\$	5,761,221
Water Authority <sup>1</sup>	\$	58,563,292	\$	8,664,667
<b>Total Agency Contributions</b>	<b>\$</b>	<b>131,814,749</b>	<b>\$</b>	<b>22,433,882</b>

Projected spending in FY 2018 is \$25,534,353 for environmental mitigation, shown by mitigation task in Table 7. Based upon the projected cash balance of \$14,048,019 at the end of FY 2017; FY 2018 combined sources of \$22,503,882; and projected FY 2018 budget spending of \$25,534,353, the QSA JPA expects to have a positive cash balance of \$9,517,548 at the end of FY 2018 (Table 6). Projected uses exceed sources and indicate the need to utilize \$3,030,471 of cash reserves in FY 2018.

**Table 6. FY 2018 Projected Fund Balance**

DESCRIPTION			CASH FLOW
FY 2017 Projected Cash Balance (6-30-17)			\$14,048,019
Sources	Mitigation Contributions	\$22,433,882	\$22,503,882
	Interest Income	\$70,000	
Uses	Environmental Mitigation		(\$25,534,353)
FY 2018 Projected Cash Balance (6-30-18)			\$11,017,548

<sup>1</sup> Water Authority contributions have been reduced by credits for payments made to the U.S. Bureau of Reclamation for implementation of Conservation and Mitigation Measures for the Colorado River.

**Table 7. Detailed FY 2018 Expenditures**

TASK	TASK DESCRIPTION	FY 2018 BUDGET
1	QSA Implementation Team	\$ -
2	QSA Implementation Team Biologists	\$ 1,220,330
3	Environmental Reporting and Monitoring	\$ 510
4	Salton Sea Salinity and Elevation Program	\$ 6,600
5	Salton Sea Mitigation Water to Salton Sea	\$ 9,963,523
6	Tamarisk Scrub Habitat - Surveys and Mitigation	\$ 208,970
7	Drain Habitat - Initial Vegetation and Habitat Surveys	\$ -
8	Drain Habitat (Aquatic) - Create/Manage/Monitor "Managed Marsh" Areas	\$ 1,896,820
9	Drain Habitat Restrictions/Requirements for Construction and Maintenance	\$ -
10/10a	Worker Education Program Covered Species Training and Manual	\$ 10,710
11	Desert Habitat Survey and Mapping of Right of Way	\$ 32,890
12	Desert Habitat Create/Maintain Desert Habitat	\$ -
13	Changes to Operations on IID Canals to Avoid Covered Species	\$ -
14	Burrowing Owl Worker Annual Education and Manual	\$ -
15	Pre-Construction Activity Burrowing Owl Surveys and Relocation	\$ 20,720
16	Burrowing Owl Relative Abundance and Distribution Surveys	\$ 153,000
17	Farmer and Public Education Program	\$ 5,000
18	Desert Pupfish Abundance and Distribution Study	\$ 5,370
19/19A	Pupfish Selenium Drain Studies	\$ 557,820
20	Pupfish Construction and Maintenance Conservation Measures	\$ 203,390
21	Salvage of Razorback Suckers when Dewatering Canals	\$ 3,070
22	Maintain Habitat on Fallowed Parcels	\$ -
23	Covered Species Baseline and Monitoring Surveys	\$ 339,620
24	Salton Sea Air Quality	\$ 10,787,450
25	Minimize Dust Emissions from Fallowed Lands	\$ -
26	Drain Connectivity to Salton Sea Elevation Decrease	\$ -
27	Grade Spoil/Roads from Drain Maintenance	\$ -
28	Power Line Markers for Pumpback and Seepage Recovery Systems	\$ -
29	Prepare and Implement Management Plan for Abandoned Portions of AAC	\$ -
30	Southwestern Willow Flycatcher Surveys and Habitat Monitoring	\$ -
31	Elf Owl Surveys	\$ -
32	Desert Tortoise Survey and Avoidance	\$ -
33	Least Tern Surveys	\$ -
34	Rail and Bittern Surveys	\$ -
35	Management and Planning	\$ 19,060
36	JPA Audit Fees	\$ 10,350
37	JPA Bank Fees	\$ 1,600
38	Financial Advisor	\$ -
39	Bond Counsel Fees	\$ -
40	2001 Biological Opinion Measures	\$ -
41	Brown Pelican Coast	\$ -
42	Brown Pelican Sea	\$ -
43	Salton Sea Shoreline Strand Study	\$ 50,000
44	Pupfish Refugium	\$ 32,960
45	Recreation Facilities at Salton Sea	\$ 4,590
<b>Total</b>		<b>\$ 25,534,353</b>



# QSA JPA FY 2018 WORK PLAN

## SECTION 5: FY 2018 WORK PLAN

The FY 2018 budget totaling \$25,534,353 includes environmental mitigation activities for compliance with environmental permits and regulatory requirements. A detailed breakdown of anticipated expenditures by line item is provided in Table 7. Mitigation measures are implemented consistent with requirements under the State Water Resources Control Board Revised Water Rights Order 2002-013, which approved the long-term transfer of conserved water from IID to the Water Authority. Major expenditure categories for mitigation measures to be implemented in FY 2018 are air quality mitigation measures (Task 24), Salton Sea mitigation water (Task 5), the Managed Marsh (Task 8), and funding for the biologist team (Task 2) (Table 8).

**Table 8. Major Expenditures in FY 2018**

TASK	TASK DESCRIPTION	FY 2018 BUDGET	PERCENT OF TOTAL BUDGET
2	QSA Implementation Team Biologists	\$ 1,220,330	5%
5	Salton Sea Mitigation Water to Salton Sea	\$ 9,963,523	39%
8	Drain Habitat (Aquatic) - Create/Manage/Monitor "Managed Marsh" Areas	\$ 1,896,820	7%
24	Salton Sea Air Quality	\$ 10,787,450	42%
--	Other Tasks	\$ 1,666,230	7%
<b>Total</b>		<b>\$ 25,534,353</b>	<b>100%</b>

Implementation of the Air Quality Mitigation Program (AQMP) is the largest budgeted expenditure for FY 2018 totaling \$10,787,450 or 42 percent of the total FY 2018 budget. Air quality mitigation (Task 24) includes playa monitoring and modeling; emissions inventory; air station monitoring network; proactive dust control; methods to restrict public access to exposed playa; and toxics monitoring. The FY 2018 budget also includes \$320,000 for the Salton Sea Marine Habitat Project by Sephton Technologies that was approved by the Commission on December 5, 2016 to be included in FY 2017 and FY 2018 budgets. No funding was spent in FY 2017, therefore the entire amount of approved funding is being rolled over into the FY 2018 budget.

Mitigation water to the Salton Sea (Task 5) is the second largest budgeted expenditure, accounting for 39 percent of the total FY 2018 budget. Mitigation water is delivered to the Salton Sea according to the calendar year schedule established in Exhibit D of the JPA Agreement. Calendar year 2017 is the final year of mitigation water deliveries to the Salton Sea. In calendar year 2017, 150,000 acre-feet of water totaling \$19,927,045 is scheduled. For fiscal year budgetary purposes, calendar year mitigation water deliveries are divided equally between the two fiscal years that split the calendar year. For FY 2018, half of the calendar year 2017 volume of 75,000 acre-feet and \$9,963,523 is scheduled for delivery by December 31, 2017.

While not included in the FY 2018 budget, previous budgets included funding to offset and restore mitigation water pre-delivered and stored in the Salton Sea by IID in 2010 for use in subsequent years that is under dispute by the U.S. Bureau of Reclamation (Reclamation). This 2010 disputed water was not generated from fallowing and therefore the volumetric mitigation delivery requirements were reduced, resulting in estimated savings of over \$6.8 million to the QSA JPA due to the reduced volume and rate. In 2013, Reclamation requested IID resolve this issue by restoring certain volumes to Lake Mead which, if fallowing were utilized, would require additional mitigation deliveries to the Salton Sea per the original schedule included in the JPA Agreement. IID had previously indicated in letters to Reclamation that it would offset and restore the 2010 pre-delivered mitigation water in calendar years 2015 and 2016, but to date this action has not been authorized by its board of directors and additional mitigation deliveries to resolve this issue have yet to occur. If IID takes action to offset and restore the pre-delivered mitigation water, the QSA JPA Commission agreed that a mid-year budget adjustment would be justified. If required, the total expenditures over the impacted budget cycles of the pre-delivery water will be the original estimated savings, resulting in no net financial impact to the QSA JPA.

The Managed Marsh is another major expenditure for FY 2018, accounting for \$1,896,820 and 7 percent of the total budget. Expenditures in FY 2018 include maintenance of the existing marsh and planning for the final phase to be constructed in 2019. This budget includes funds for a land appraisal in anticipation of the purchase of the Managed Marsh conservation easement.

The QSA Implementation Team Biologists (Task 2) makes up \$1,220,330 or 5 percent of the total budget. This item includes funding for 7 full time staff and expenses for their fleet of vehicles.

Wildlife and habitat studies; monitoring; and education and outreach make up the remaining 7 percent of the FY 2018 expenditures totaling \$1,666,230.

Detailed summaries for individual mitigation measures by task including mitigation requirements; historical spending; a detailed breakdown of FY 2018 expenditures; and planned and completed work are included in Appendix 2.

Appendix 1: Audited Historical QSA JPA Spending, FY 2004-FY 2016

Task	Task Description	Total FY 2004-2016	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012	FY 2011	FY 2010	FY 2009	FY 2008	FY 2007	FY 2006	FY 2005	FY 2004
1	Implementation Team	<b>\$383,879</b>					\$1,440	\$1,512	\$10,484	\$36,842	\$92,216	\$91,906	\$103,876	\$45,603	
2	Implementation Team Biologists	<b>\$3,916,279</b>	\$613,942	\$505,547	\$536,389	\$490,019	\$516,993	\$219,985	\$263,910	\$233,982	\$127,200	\$153,919	\$104,482	\$149,911	
3	Environmental Reporting and Monitoring	<b>\$82,458</b>								\$17,385	\$32,170	\$7,639	\$68	\$25,196	
4	Salton Sea Salinity and Elevation Program	<b>\$5,489</b>												\$5,489	
5	Salton Sea Mitigation Water	<b>\$61,324,134</b>	\$17,483,767	\$11,607,035	\$10,580,006	\$3,834,494	\$300,000	\$4,053,901	\$2,011,054	\$3,158,089	\$2,428,737	\$1,068,629	\$3,410,433	\$1,025,690	\$362,299
6	Tamarisk Scrub Habitat - Surveys and Mitigation	<b>\$9,548</b>									\$1,108	\$7,124	\$1,316		
7	Drain Habitat - Initial Vegetation and Habitat Surveys	<b>\$209,123</b>										\$663	\$11,991	\$196,469	
8	Drain Habitat (Aquatic) - Create/Manage/Monitor "Managed Marsh" Areas	<b>\$9,128,669</b>	\$389,963	\$2,787,567	\$390,935	\$205,940	\$249,921	\$343,918	\$2,271,303	\$1,991,591	\$301,288	\$63,164	\$94,442	\$38,637	
9	Drain Habitat Restrictions/Requirements for Construction and Maintenance	<b>\$8,473</b>											\$8,473		
10/ 10a	Worker Education Program Covered Species Training and Manual	<b>\$35,302</b>									\$2,315	\$20,204	\$10,854	\$1,929	
11	Desert Habitat Survey and Mapping of Right of Way	<b>\$379,191</b>											\$323,224	\$55,967	
12	Desert Habitat Create/Maintain Desert Habitat	<b>\$17,300</b>											\$17,300		
13	Changes to Operations on IID Canals to Avoid Covered Species	<b>\$0</b>													
14	Burrowing Owl Worker Annual Education and Manual	<b>\$10,411</b>										\$2,580	\$6,505	\$1,326	
15	Pre-Construction Burrowing Owl Surveys and Relocation	<b>\$914,918</b>	\$6,765		\$4,020	\$756	\$35	\$173,309	\$171,203	\$142,268	\$159,363	\$135,268	\$118,666	\$3,265	
16	Burrowing Owl Relative Abundance and Distribution Surveys	<b>\$3,019,400</b>	\$59,509	\$28,172	\$13,145	\$35,072	\$245,285	\$124,438	\$30,801	\$130,668	\$1,203,135	\$902,195	\$238,861	\$8,119	
17	Farmer and Public Education	<b>\$7,033</b>	\$1,416	\$1,435	\$2,876	\$260		\$499						\$547	

Task	Task Description	Total FY 2004-2016	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012	FY 2011	FY 2010	FY 2009	FY 2008	FY 2007	FY 2006	FY 2005	FY 2004
18	Desert Pupfish Abundance and Distribution Study	<b>\$14,283</b>	\$24		\$14			\$767				\$554	\$12,924		
19/ 19A	Pupfish Selenium Drain Studies	<b>\$1,914,499</b>		\$1,482			\$14,333	\$261,123	\$328,148	\$176,793	\$474,401	\$343,736	\$156,587	\$157,896	
20	Pupfish Conservation Measures	<b>\$36,728</b>					\$5,800	\$22,778						\$8,150	
21	Salvage of Razorback Suckers when Dewatering	<b>\$9,534</b>										\$166	\$6,626	\$2,742	
22	Maintain Habitat on Fallowed Parcels	<b>\$0</b>													
23	Covered Species Baseline and Monitoring Surveys <sup>2</sup>	<b>\$5,393,441</b>	\$17,000	\$62	\$151	\$53,333	\$90,752	\$158,917	\$331,375	\$1,443,097	\$2,386,657	\$906,318	\$2,644	\$3,135	
24	Air Quality	<b>\$7,053,070</b>	\$2,797,387	\$601,399	\$348,604	\$286,877	\$344,955	\$506,207	\$1,136,466	\$967,155	\$62,779		\$1,241		
25	Minimize Dust Emissions from Fallowed Lands	<b>\$57,775</b>										\$1,298	\$5,157	\$51,320	
26	Drain Connectivity to Salton Sea	<b>\$0</b>													
27	Grade Spoil/Roads from Drain Maintenance	<b>\$0</b>													
28	Power Line Markers for Pumpback and Seepage Recovery Systems	<b>\$1,960</b>								\$1,960					
29	Management Plan for Abandoned Portions of AAC	<b>\$0</b>													
30	Southwestern Willow Flycatcher Surveys and Monitoring <sup>3</sup>	<b>\$62,938</b>									\$62,717			\$221	
31	Elf Owl Surveys	<b>\$0</b>													
32	Desert Tortoise Survey and Avoidance	<b>\$0</b>													
33	Least Tern Surveys	<b>\$0</b>													
34	Rail and Bittern Surveys	<b>\$0</b>													
35	Management and Planning	<b>\$326,258</b>	\$4,190	\$3,229	\$3,950	\$4,618	\$5,713	\$5,442	\$23,647	\$17,808	\$64,954	\$48,390	\$47,903	\$96,414	

<sup>2</sup> Includes Avian Studies from FY 2006, 2007, and 2008.

<sup>3</sup> Includes Task 46 from previous years.

Task	Task Description	Total FY 2004-2016	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012	FY 2011	FY 2010	FY 2009	FY 2008	FY 2007	FY 2006	FY 2005	FY 2004
36	JPA Audit Fees	<b>\$116,578</b>	\$12,147	\$11,911	\$11,680	\$11,452	\$11,230	\$8,405	\$10,185	\$10,848	\$10,320	\$5,400	\$13,000		
37	JPA Bank Fees	<b>\$22,549</b>	\$1,609	\$1,678	\$1,603	\$1,708	\$3,200	\$2,023	\$560	\$2,570	\$2,493	\$2,451	\$2,044	\$610	
38	Financial Advisor	<b>\$29,497</b>										\$29,497			
39	Bond Counsel Fees	<b>\$25,000</b>										\$25,000			
40	2001 Biological Opinion Measures	<b>\$3,349,126</b>							\$262,272	\$2,199,283	\$290,365	\$466,006	\$131,200		
41	Brown Pelican Coast	<b>\$0</b>													
42	Brown Pelican Sea	<b>\$0</b>													
43	Salton Sea Shoreline Strand Study	<b>\$0</b>													
44	Pupfish Refugium	<b>\$60,641</b>	\$1,840	\$21,284				\$1,407	\$24,208	\$6,222	\$5,680				
45	Recreation Facilities at Salton Sea	<b>\$1,128</b>		\$1,128											
Total		<b>\$97,926,612</b>	\$21,389,559	\$15,571,929	\$11,893,373	\$4,924,529	\$1,789,657	\$5,884,631	\$6,875,616	\$10,536,561	\$7,707,898	\$4,282,107	\$4,829,817	\$1,878,636	\$362,299
Biological Opinion Measures Credited to Water Authority		<b>\$3,349,126</b>							\$262,272	\$2,199,283	\$290,365	\$466,006	\$131,200		
Total QSA JPA Expenditures		<b>\$94,577,486</b>	\$21,389,559	\$15,571,929	\$11,893,373	\$4,924,529	\$1,789,657	\$5,884,631	\$6,613,344	\$8,337,278	\$7,417,533	\$3,816,101	\$4,698,617	\$1,878,636	\$362,299

## Work Task 1: QSA Implementation Team

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$383,879

**Description and Purpose:** The QSA Implementation Team is to holds quarterly Implementation Team (IT) meetings consisting of representatives from IID, USFWS, and CDFW, to guide implementation of the HCP and In-Valley CESA Permit for the duration of the HCP and Permit.

**Permit Reference:** HCP; CESA Permit 4(a)(ii) and MMRP 8

**Accomplishments Through FY16:** Monthly and quarterly implementation team meetings.

**FY17 Activities:** Quarterly implementation team meetings:

July 26th 2016 - SDCWA

Oct 13th, 2016 - IID

Feb 2017 - CDFW

April 13th, 2017 - Budget Call

**Proposed FY18 Activities:** Quarterly implementation team meetings. Costs included in Task 2 for staff time and vehicle expenses.

## Work Task 2: QSA Implementation Team Biologists

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$1,220,330	\$813,915	\$967,862	\$3,916,279

**Description and Purpose:** Salary and expenses for IT Biologists.

**Permit Reference:** HCP, General 1; CESA Permit 4(a) (i) and MMRP 7

**Accomplishments Through FY16:** Full time staff positions include Biologist, two Environmental Specialist I's, and one Environmental Specialist II. Purchased one SUV, one 4x4 truck, and two 2x4 trucks.

**FY17 Activities:** Full time staff positions include one Biologist, three Environmental Specialist I's, and one Environmental Specialist II. Purchased two SUVs, one 4x4 truck, one 2x4 truck, and one ATV.

**Proposed FY18 Activities:** Salaries for full time Biologist, four Environmental Specialist I's and two Environmental Specialist II's. Fuel and maintenance for one truck (2x4), three trucks (4x4) and two SUVs. Expenses for one off-road vehicle donated by IID. Assumes training expenses for Biologist at \$2,000 and training expenses for all Environmental Specialists at \$1,500 each. Vehicle rates have not changed for 2017-2018. Projected costs include a 3 percent rate increase and 2 percent expense increase. No additional staff planned at this time.

### Work Task 3: Environmental Reporting and Monitoring

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$510	\$500	\$500	\$82,458

**Description and Purpose:** Report annually to USFWS and CDFW the amount of water conserved, transferred, and allowed to flow to the Salton Sea.

Make available to USFWS and CDFW valley-wide statistics regarding agricultural production and implementation of water conservation measures, including total acreage in agricultural production in the IID water service area, acres of each crop grown, acres of land fallowed, acres of participating farms, and total amount of water conserved and transferred.

Submit annual report to SWRCB on actions taken to comply with the mitigation measures and conservation strategies included in the Final EIR/EIS and HCP and all other state and federal permits and regulatory requirements.

Prepare Adaptive Management Plan for monitoring effectiveness of mitigation measures. Submit reports of the previous year's activities to USFWS, CDFW and SWRCB including details of fish and wildlife conservation actions implemented, monitoring/surveying activities, and water conservation activities.

**Permit Reference:** HCP Chp 4; In-Valley Biological Opinion, TC Reporting Requirements; CESA Permit Conditions of Approval, General Conditions (a) and (b) and MMRPs; SWRCB Section 4

**Accomplishments Through FY16:** Annual report sent by March 31st of each year for the previous calendar year.

**FY17 Activities:** Printing and shipping costs for annual reports. Annual Report sent March 31st, 2017 for activities completed in calendar year 2016.

**Proposed FY18 Activities:** Printing and shipping costs for annual reports.



## Work Task 4: Salton Sea Salinity and Elevation Program

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$6,600	\$0	\$6,500	\$5,489

**Description and Purpose:** To demonstrate compliance with the Salton Sea Habitat Conservation Strategy, monitor salinity and elevation of the Salton Sea.

**Permit Reference:** SWRCB-6; CESA Permit; MMRP 40

**Accomplishments Through FY16:** Salinity monitoring completed by IID staff at five locations around the Salton Sea as part of water quality monitoring in Imperial Valley:  
Desert Beach, Bertram Station, B/W Rivers, Sandy Beach and Salton Sea Beach.

**FY17 Activities:** Salinity monitoring around the Salton Sea using USFWS Sonny Bono air boat and purchasing of new equipment every three years. Monitoring conducted by IID staff at five locations.

**Proposed FY18 Activities:** Salinity monitoring around the Salton Sea using USFWS Sonny Bono air boat and purchasing of new equipment every three years.

## Work Task 5: Salton Sea Mitigation Water to Salton Sea

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$9,963,523	\$18,412,464	\$18,412,467	\$61,324,134

**Description and Purpose:** To implement refined Salton Sea Habitat Conservation Strategy (SSHCS), which requires provision of mitigation water to the Salton Sea for the first 15 years of the project to mitigate reductions in inflow due to the transfer of water to the Water Authority. Mitigation water will be delivered in accordance with the schedule in Table 1-3 of the 9/03 Addendum.

**Permit Reference:** SWRCB; CESA Permit 4 (c) (i) and MMRP<sub>13</sub>

**Accomplishments Through FY16:** Water is delivered per calendar year and broken up over two fiscal years for the budget.

CALENDAR YEAR	VOLUME DELIVERED
2016	130,796
2015	153,327
2014	89,168
2013	71,470
2012 <sup>1</sup>	15,110
2011 <sup>2</sup>	-
2010 <sup>3</sup>	80,282
2009	30,158
2008	26,085
2007	23,306
2006	-
2005	-
2004	14,359
2003 <sup>4</sup>	-
<b>Total<sup>5</sup></b>	<b>634,061</b>

**FY17 Activities:** Delivery of mitigation water.

**Proposed FY18 Activities:** 75,000 acre-feet (half of the calendar year 2017 volume) is scheduled for delivery in FY 18. Delivery of mitigation water ends on December 31, 2017.

<sup>1</sup> 19,879 AF of entitlement water accounted for 66.3% of the 2012 Salton Sea obligation. The remaining 15,182 AF was produced through following.

<sup>2</sup> Entitlement water stored in the Salton Sea in 2010 was used to meet the 2011 obligation.

<sup>3</sup> 46,521 AF of entitlement water was delivered to the Salton Sea for storage as early mitigation water in 2010 for the scheduled obligations of 2011 and part of 2012.

<sup>4</sup> Since the QSA was executed in late 2003, SWRCB approved the 2003 obligation being satisfied in 2004.

<sup>5</sup> Due to use of entitlement water, adjustments have been made to the total obligation.

## Work Task 6: Tamarisk Scrub Habitat - Surveys and Mitigation

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$208,970	\$0	\$75,900	\$9,548

**Description and Purpose:** To develop preconstruction survey checklists and protocols in consultation with the IT, to identify proposed construction and impacted vegetation and covered species. Specific survey protocol will be developed to monitor and quantify changes in the amount/quality of habitat in consultation with USFWS and CDFW.

Includes the evaluation of all potential cottonwood-willow and tamarisk stands for Southwestern Willow Flycatcher breeding habitat suitability, prior to IID water conservation activities that could impact tamarisk habitat.

**Permit Reference:** HCP-TREE 1-3; In-Valley Biological Opinion, Willow Flycatcher Measures 1 to 4; CESA Permit 4 (f) and MMRP 21-27, 29-36, 41, 42

**Accomplishments Through FY16:** N/A

**FY17 Activities:** Monitoring of seepage recovery sites by Environmental Specialist. Native tree habitat is mitigated at the Managed Marsh buffer zones.

**Proposed FY18 Activities:** Native Tree habitat is located at the Managed Marsh complex in the buffer zones. Budget includes costs for irrigation water, maintenance expenses and weed control. Lining of Phase I buffer zone ditches, replace O25B service pipe, and Phase II Willow Channel in FY 18. Lining of Phase II buffer zones ditches and possible increase of native tree habitat in future FY.

## Work Task 7: Drain Habitat - Initial Vegetation and Habitat Surveys

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$209,123

**Description and Purpose:** To complete drain vegetation database, conduct covered species baseline surveys as necessary, and participate in a comprehensive planning process to address selenium impacts. Includes the evaluation of all potential cottonwood-willow and tamarisk stands for southwestern willow flycatcher breeding habitat suitability, based on characterizations provided in the draft Southwestern Willow Flycatcher Recovery Plan.

**Permit Reference:** HCP, Drain Habitat 1; In-Valley Biological Opinion Willow Flycatcher Measures 1 to 4; CESA Permit, 4(g) and MMRPs

**Accomplishments Through FY16:** Baseline drain vegetation surveys conducted in 2005 to determine acreage amount for Managed Marsh Complex and habitat types: 950 acres of emergent, open water and riparian habitats.

**FY17 Activities:** No costs.

**Proposed FY18 Activities:** No costs.

## Work Task 8: Drain Habitat (Aquatic) - Create/Manage/Monitor "Managed Marsh" Areas

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$1,896,820	\$306,263	\$572,300	\$9,128,669

**Description and Purpose:** To create 959 acres of managed marsh habitat over a 15 year period, 1/3 of the total within the first five years. The specific amount will be determined by the IT, and approved by USFWS and CDFW, based upon the drain vegetation survey (an amount equal to the total amount of habitat in the drains), as well as the acreage required to compensate for selenium effects. Due diligence will be conducted on land chosen for Managed Marsh and land will be purchased for managed march.

**Permit Reference:** HCP Drain Habitat; In-Valley Biological Opinion-Rail CM 1-2; CESA 4 (g) (i) and MMRP 45, 46, 47, 88, 101, 102, 103

**Accomplishments Through FY16:** Phase I built in 2009 - 365 acres. Phase II built in 2014 - 360 acres. Buffer zones double as native tree habitat for construction projects.

**FY17 Activities:** Operation & Maintenance of berm/roads. Irrigation water costs. Adaptive management and monitoring. Controlled burn in three cells and associated maintenance in Phase I. Invasive species control.

**Proposed FY18 Activities:** Operation and maintenance of Phases I and II and beginning design for Phase III. Includes irrigation water costs, adaptive management and monitoring, and large scale maintenance in Phase I. Costs for land appraisal to prepare for conservation easement purchase from IID.

Internal Pest Control Advisor - costs should be included in IID Overhead, \$10K for expenses. Will re-evaluate costs for next FY. Irrigation ditch off of Phase II O25 gate needs replacement - pipeline IID northend supervisor or foreman to conduct weekly infrastructure/maintenance inspections and coordinate maintenance needs with maintenance crews.

## Work Task 9: Drain Habitat Restrictions/Requirements for Construction and Maintenance

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$8,473

**Description and Purpose:** To implement the listed measures when conducting scheduled construction activities within rights-of-way along the AAC, East Highline, and portions of the Westside Main, Thistle, and Trifolium Extension Canals containing desert habitat (these measures may be modified during the permit term with the approval of USFWS and CDFW or based on survey results or adaptive management).

**Permit Reference:** HCP-Drain 3; CESA Permit 4 (f) (i, ii, iii, and ix), 4 (g), 4 (i) (iv) and MMRP 36, 49, 50, 70, 71, 76, 77, 89

**Accomplishments Through FY16:** Pre-construction surveys for construction activities.

**FY17 Activities:** No costs.

**Proposed FY18 Activities:** Costs of biological monitors included as Environmental Specialists in Task 2.

## Work Task 10/10A: Worker Education Program Covered Species Training and Manual

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$10,710	\$0	\$10,500	\$35,302

**Description and Purpose:** To implement an annual worker education program for workers conducting O&M and construction activities to ensure compliance with the Desert Habitat Conservation Strategy. A worker education manual is to be prepared with the concurrence of USFWS and CDFW; copies are to be distributed to each person conducting O&M activities along the AAC, East Highline, Westside Main, Thistle or Trifolium canals. Includes review of worker education manual, updates as appropriate, and distribution to workers; copies are to be given to USFWS and CDFW. Workers' compliance is to be monitored with worker education manual procedures, and any infractions will be reported by the IT Biologist to the worker's supervisor.

**Permit Reference:** HCP-Desert 1; CESA Permit 4 (i) MMRP 58, 59 and 60

**Accomplishments Through FY16:** Annual worker education trainings conducted at the beginning of each calendar year and then an additional training mid-year for new employees.

**FY17 Activities:** Annual worker education trainings conducted at the beginning of each calendar year and an additional training mid-year for new employees.

**Proposed FY18 Activities:** Worker Education Program for O&M and Construction activities in Desert Habitat has been combined with Task 14: BUOW Worker Education Program to capture all employees at the same time. Trainings are given at the beginning of the year and are part of the IID Training/Education Program each year. HCP Team member leads the training. Assumes Final HCP in FY 2018.

## Work Task 11: Desert Habitat Survey and Mapping of Right of Way

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$32,890	\$0	\$16,800	\$379,191

**Description and Purpose:** To conduct a desert habitat survey encompassing IID's rights-of-way along the AAC (from the intersection with the East Highline Canal to the desilting basins at Imperial Dam) and the Westside Main, East Highline, Thistle and Trifolium Extension Canals where the rights-of-way contain or are adjacent to desert habitat. Includes Identifying and mapping habitat and habitat features. A report of the results of the desert habitat survey is tube reported to USFWS and CDFW. The worker education manual will be updated to include a habitat map and map(s) of known locations of each of the covered species within the canal rights-of-way.

**Permit Reference:** HCP DH 4; CESA Permit 4 (i)(v) MMRP 64

**Accomplishments Through FY16:** Habitat survey conducted as part of initial habitat mapping at the beginning of QSA.

**FY17 Activities:** Surveys of AAC budgeted in FY 17, but not performed.

**Proposed FY18 Activities:** Purchase of aerial imagery of desert habitat adjacent to IID's rights-of-way and a consultant to see if there are any changes from existing data. HCP team will conduct any necessary ground truthing surveys. This task was deferred from FY 17.



## Work Task 12: Desert Habitat Create/Maintain Desert Habitat

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$100,000	\$17,300

**Description and Purpose:** To determine the amount of habitat lost, and work with the IT to identify a replacement property (in a 1:1 ratio to the lost acreage) to be acquired or covered with a conservation easement if desert habitat used by covered species would be permanently lost due to O&M or construction activities. IID may not permanently remove more than 100 acres of desert habitat and/or tamarisk scrub habitat over the permit term.

**Permit Reference:** HCP-DH 5; CESA Permit 4(i) (vi) and MMRP 66, 67, 68

**Accomplishments Through FY16:** No mitigation has been required to date. Mitigation is banked at the Managed Marsh in the buffer zones.

**FY17 Activities:** Budget for revegetation but none is anticipated in FY 17.

**Proposed FY18 Activities:** Native tree habitat is mitigated for in Task 6. Assumes no mitigation needs for FY 18.

### Work Task 13: Changes to Operations on IID Canals to Avoid Covered Species

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$0

**Description and Purpose:** To implement the listed "interim" practices in connection with O&M activities. These measures may be modified during the permit term based upon survey results or adaptive management.

**Permit Reference:** HCP, Desert 2; CESA Permit, Conditions 4(i)(iii), 4(i)(vii) to (xiv) and MMRP 50,60,62,63,70, 71,76 and 77

**Accomplishments Through FY16:** No major modifications to O&M activities.

**FY17 Activities:** No costs.

**Proposed FY18 Activities:** Assumes no changes to operation activities during FY 2018. Should changes occur, the HCP Team will work with the Implementation Team to address changes and necessary mitigation measures.

## Work Task 14: Burrowing Owl Worker Annual Education and Manual

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$10,411

**Description and Purpose:** To develop and implement an annual worker education program to ensure workers are familiar with Burrowing Owl mitigation measures. Also to ensure new workers are informed of and understand the HCP requirements. A worker education manual is to be prepared and distributed to each person conducting drain cleaning or canal maintenance procedures and refresher instruction is to be conducted. Copies of the manual are to be provided to USFWS and CDFW and approval of the workers' manual from USFWS and CDFW must be obtained. The IT Biologist will conduct random checks of workers to ensure compliance with the HCP.

**Permit Reference:** HCP, Owl 1

**Accomplishments Through FY16:** Annual education program rolled into Task 10/10A

**FY17 Activities:** Included in Task 10/10A. No Costs.

**Proposed FY18 Activities:** The Burrowing Owl Worker Education and Manual have been combined with Task 10/10A: Worker Education Program to conduct one annual worker education program. All Water Department O&M and construction workers are trained in January of each year. Zanjeros and water patrolmen are trained in February/March of each year. A mid-year make up training is conducted for anyone who missed trainings at the beginning of the year or who have been hired since trainings occurred.

## Work Task 15: Pre-Construction Activity Burrowing Owl Surveys and Relocation

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$20,720	\$3,539	\$19,950	\$914,918

**Description and Purpose:** To implement the following in connection with construction and O&M activities:

- Conduct visual inspection of banks and indicate location of burrows; avoid collapsing or filling burrows, exercise care in removing sediment, and avoid moving the excavator bucket directly over a burrow.
- Develop standard operating procedures through teamwork of IT biologist and maintenance workers for drain/canal cleaning.

**Permit Reference:** HCP-Owl 2-8

**Accomplishments Through FY16:** Annual inspections of canals and drains prior to all O&M activities.

**FY17 Activities:** Purchase of burrowing owl inspection materials.

**Proposed FY18 Activities:** Pre-inspection activities are conducted by HCP Team members as soon as an operation/maintenance or construction activity is identified. Costs include materials and equipment. Assume no more than two burrows needing artificial relocation each year. Additional equipment to be purchased every five years. HCP Team member and vehicles are covered under Task 2.

## Work Task 16: Burrowing Owl Relative Abundance and Distribution Surveys

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$153,000	\$20,000	\$355,000	\$3,019,400

**Description and Purpose:** To prepare and conduct a study design for a relative abundance and distribution survey of Burrowing Owls (BUOW) in the HCP area; prepare in consultation with a statistician; obtain IT approval of the study design.

**Permit Reference:** HCP, Owl 7

**Accomplishments Through FY16:** Population Studies conducted in 2007/2008. Sub-Sampling conducted in 2011/2012. "Efficacy study" on burrowing owl marking protocol in 2015/2016.

**FY17 Activities:** Sampling surveys budgeted but none are planned for FY 17.

**Proposed FY18 Activities:** BUOW population and sub-sampling population studies were conducted in 2007-2008 and 2011-2012. Three year population sub-sampling to be conducted beginning in FY 18. Demographic study is being left as a line item as a contingency in the event that the population study proves there is a potential for a decline. Efficacy Study: HCP Team is revamping BUOW Monitoring Protocol and will be retraining all staff. Following implementation of training, will meet with operators to determine if inspection protocols have changed and impacted their work.

## Work Task 17: Farmer and Public Education Program

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$5,000	\$0	\$7,000	\$7,033

**Description and Purpose:** To implement a farmer and public education program on Burrowing Owls; periodically include information on Burrowing Owls in water bills to farmers.

**Permit Reference:** HCP, Owl 9

**Accomplishments Through FY16:** Design an Ad and public outreach presentations to various groups.

**FY17 Activities:** Public outreach for burrowing owls within the farming community and general public.

**Proposed FY18 Activities:** Public outreach for burrowing owls within the farming community and general public. Cost estimate for Task 17 has been reduced.

## Work Task 18: Desert Pupfish Abundance and Distribution Study

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$5,370	\$0	\$15,350	\$14,283

**Description and Purpose:** To develop in coordination with the IT a protocol for monitoring pupfish presence in drains currently maintained, and in drain channels constructed, to increase the amount of potential pupfish drain habitat under Pupfish 3.

**Permit Reference:** HCP, Pupfish 4; In-Valley Biological Opinion, Pupfish CM 3; CESA Permit

**Accomplishments Through FY16:** Pupfish trapping and consumables.

**FY17 Activities:** Desert pupfish monitoring conducted by HCP Team members.

**Proposed FY18 Activities:** Desert pupfish monitoring conducted by HCP Team members. Assumes purchase of equipment, consumables and replacement traps annually. Expenses reduced based on budget spent in FY 2017.

## Work Task 19/19A: Pupfish Selenium Drain Studies

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$557,820	\$46,620	\$114,400	\$1,914,499

**Description and Purpose:** To operate and maintain drains in a manner that minimizes the effects of water conservation on water quality. To implement the selenium drain monitoring study. To work together with the IT to determine the best means for managing the drain channels to minimize potential selenium effects on pupfish, based upon the findings of studies conducted by USFWS or others and continue funding of the Selenium Toxicity Study.

**Permit Reference:** HCP-Pupfish 4; CESA Permit Conditions 4(j)(ii), 4(j)(vi), 4(j)(vii), 4(j)(x); MMRP 80, 81, 87, 94; In-Valley Biological Opinion;; SWRCB Order

**Accomplishments Through FY16:** USGS Selenium Study completed in 2009. Recommendations from USGS study used to create Selenium Work Plan for the RWQCB Ag Waiver completed.

**FY17 Activities:** Development of Selenium Quality Assurance Project Plan (QAPP) and monitoring plan. Implementation of plan is anticipated to start in FY 18.

**Proposed FY18 Activities:** Implement Selenium Provision Work Plan to comply with Conditional Waiver of Waste Discharge Requirements for Agricultural Wastewater Discharges and Discharges of Wastes from Drain Operation & Maintenance Activities within the Imperial Valley issued by the Colorado River Basin Regional Water Quality Control Board. Implementation of the QAPP during FY 2018, assumes monitoring conducted by IID staff and/or qualified consultants and all samples sent to a qualified lab. Assumes initial purchase of equipment for IID staff. If costs for implementation are higher than budgeted, we will come back to the IT and JPA for budget amendment approval. Selenium Work Plan was submitted in 2015. QAPP developed in FY 2017.



## Work Task 20: Pupfish Construction and Maintenance Conservation Measures

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$203,390	\$0	\$40,000	\$36,728

**Description and Purpose:** To implement the listed measures in connection with construction activities (i.e., in-channel modifications) that directly affect pupfish drains and require dewatering or removal of drain sections.

**Permit Reference:** HCP-Pupfish 6; CESA Permit MMRP 80, 86, 89, 90, 94, 95, 96, 97; In-Valley Biological Opinion

**Accomplishments Through FY16:** Any required drain maintenance activities have been consulted with CDFW and pupfish trapping has occurred for five consecutive days with no pupfish caught before work occurs.

**FY17 Activities:** Development of plan for drain interconnection. No anticipated costs in FY 17.

**Proposed FY18 Activities:** Implementation of pupfish connectivity by IID crews to extend drains. Routine Streambed Alteration Agreement for maintenance activities includes base fee and fees per maintenance activity. Assumes no more than 3 activities in a FY. Test drain extension methods and costs on pupfish drains.

## Work Task 21: Salvage of Razorback Suckers when Dewatering Canals

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$3,070	\$0	\$500	\$9,534

**Description and Purpose:** The IT will develop a procedure for salvaging and returning fish to the Colorado River and ensure that a person qualified to capture and handle razorback suckers, and approved by USFWS and CDFW, will be present during dewatering of main canals or reservoirs.

**Permit Reference:** HCP-Razorback Sucker 1; CESA Permit 4 (k) (i) and MMRP 99

**Accomplishments Through FY16:** No relocation efforts have been conducted to date.

**FY17 Activities:** Relocation of Razorback suckers. No anticipated costs in FY 17.

**Proposed FY18 Activities:** Should Razorback Suckers be found in a canal or reservoir and need returning to the Colorado River HCP Team and IID Biological Control will conduct relocation efforts. Budget includes assumed costs for four Biological Control Hatchery Workers for one day and expenses for equipment needed.

## Work Task 22: Maintain Habitat on Fallowed Parcels

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$0

**Description and Purpose:** N/A

**Permit Reference:** N/A

**Accomplishments Through FY16:** Task has no value. Fallowed parcels are located throughout the valley. Cover crops not needed for habitat.

**FY17 Activities:** Task has no value. Fallowed parcels are located throughout the valley. Cover crops not needed for habitat.

**Proposed FY18 Activities:** Task has no value. Fallowed parcels are located throughout the valley. Cover crops not needed for habitat.

## Work Task 23: Covered Species Baseline and Monitoring Surveys

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$339,620	\$3,000	\$128,000	\$5,393,441

**Description and Purpose:** To work with the IT to define specific surveys and studies to be conducted as part of a study program for the "Other Species" listed in Table 3.9-1 of the HCP within the HCP area. The use of created or acquired native tree habitat is to be monitored. A baseline desert survey will be conducted.

**Permit Reference:** HCP-OTHER Species 1 and 2; CESA Permit 4 (i) (v) and MMRP 35, 48, 64, 65; HCP; CESA Permit 4 (i) (v) and MMRP 64; HCP DH 2, DH3, DH4

**Accomplishments Through FY16:** Baseline survey of covered species completed in 2009. Imagery purchased for Imperial Valley Agricultural area. Annual marsh bird protocol surveys and Southwest Willow Flycatcher surveys conducted.

**FY17 Activities:** Marsh bird surveys conducted at Managed Marsh. Pre-construction/inspection surveys for covered species on canal or drain construction projects. No other species surveys will be conducted in FY 17.

**Proposed FY18 Activities:** HCP Team to conduct annual southwest willow flycatcher surveys. IID GIS to develop management strategy for covered species data. Managed marsh bird surveys conducted by HCP Team members – assumes equipment purchases every five years. Development of a field survey plan for covered species by habitat type (some overlap for species). Starting in FY18 aquatic and riparian habitats would be surveyed for 3 years and then start on next habitat types. Estimated costs based on BUOW population subsampling.

## Work Task 24: Salton Sea Air Quality

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$10,787,450	\$4,942,483	\$8,320,500	\$7,053,070

**Description and Purpose:** Continue implementation of the 4-step air quality plan: (1) Restrict Access, (2) Research and Monitoring, (3) Emission Reduction Credits, (4) Direct Emissions Reductions.

**Permit Reference:** SWRCB-8; EIR/EIS STEP 2, AQPLAN-AQ 7

**Accomplishments Through FY16:** Emissions Inventory and Monitoring Program. AQ Plan Development. Air Station Network and Data Validation. Air Quality Pilot Projects carried out - Surfactant Project, Alamo River North, and Emissions Inventory.

**FY17 Activities:** AQ Plan developed July 2016. Network upgrade, O&M, data validation. Creation of mobile stations for MET and cameras. Playa monitoring with PISWERL and toxic monitoring equipment Pilot Projects at Alamo River South, Poe Road, Bombay Beach, Coachella, and

**Proposed FY18 Activities:** Implementation of Salton Sea Air Quality Mitigation Program. Costs include mitigation program reports and planning. Playa and Off-lake monitoring and modeling. Pro-Active Dust Control Projects around the Salton Sea. Continued monitoring and evaluation of Pro-Active Dust Control Projects implemented in FY 2016 and 2017. Restricting access to playa and public outreach campaign. Grant programs for monitoring toxics and water sources around the Salton Sea with CARB, EPA or BOR. Evaluation of water resources around Salton City wash and west side of the Salton Sea. Budgets for implementation of Pro-Active Dust Control Projects are estimates - we would come back to the IT and JPA for budget amendment approval if needed. Cost share funding of Salton Sea Marine Habitat Project totalling \$320,000 (no funds spent in FY 17).

Detailed expenditures for this Task are included in the following table.

<b>TASK 24 – AIR QUALITY</b>	<b>ACTIVITY DESCRIPTION</b>	<b>2018 BUDGET</b>
Air Quality Mitigation Program - document	Air quality mitigation program for Salton Sea with associated costs analysis for QSA caused playa exposure by air quality consultant, developed in 2016. Budget includes annual air quality plan for next dust season.	\$ 153,000
Air Quality Mitigation Program - other	Coordination with ICAPCD, CARB, and EPA. \$200K for air quality consultant coordination. Includes cost for coordination on Rules 804 and 80X.	\$ 300,000
Playa Monitoring and Modeling	Monitoring rate of exposed playa.	\$ 100,000
Playa Monitoring and Modeling - Dust Emissions Monitoring	Maintenance and calibration of equipment for PISWERL.	\$ 7,650
Playa Monitoring and Modeling - Soil and Toxics Monitoring	Purchase of a toxics monitor to attach to the PISWERL, includes data analysis by air quality consultant. Testing of toxic monitoring equipment by DRI in FY 2017	\$ 155,100
Playa Monitoring and Modeling - Other Modeling Equipment	Modeling equipment or consultant to be done on or off lake. Assumes 1 year of time.	\$ 555,000
Playa Monitoring and Modeling - Roundshot Remote Camera Monitoring	Installation of three (3) remote cameras around the Salton Sea, expenses include equipment and installation by IID and consultant.	\$ 120,000
Playa Monitoring and Modeling - Stationary Camera Monitoring	Installation of twelve (12) stationary cameras at locations around the Salton Sea on mobile air stations at Pro-Active Dust Control project sites, expenses include equipment and installation by IID and consultant.	\$ 214,500
Emissions Inventory	Data collection and analysis program. Includes off lake sources monitoring and modeling by air quality consultant. Update playa exposure. (Formation)	\$ 875,000
Air Station Monitoring Network - Operation and Maintenance	Operation of stations by air quality consultant for O&M. (Formation)	\$ 495,000
Air Station Monitoring Network - Equipment and Parts	Purchase of equipment or parts for air stations to be done by air quality consultant for timing. (Formation)	\$ 205,000
Air Station Monitoring Network - Data Validation	Data validation of air station network by air quality consultant per month. Included in cost for Air Station O&M (Formation)	\$ -
Air Station Monitoring Network - Mobile Station	Five (5) mobile monitoring equipment with data analysis by air quality consultant. Continued purchase and installation of mobile stations to be used at Pro-Active Dust Control project sites.	\$ 156,000
Pro-Active Dust Control - 1+ years Monitoring	Monitoring of Pro-Active Dust Control Projects at Alamo River North and South, New River West, Poe Road, and Coachella sites. Includes data collection and analysis by air quality consultant. (Formation)	\$ 650,000

TASK 24 – AIR QUALITY	ACTIVITY DESCRIPTION	2018 BUDGET
Pro-Active Dust Control - Vegetation Enhancement Pilot Study	Continue vegetation enhancement project. Expenses for data collection and analysis by air quality consultant. (Formation)	\$ 220,000
Pro-Active Dust Control - Seed Collection, cleaning and storage	Continued collection of native seed around the Salton Sea by Conservation Corps. Seed cleaning, germination rates and storage by Seed company.	\$ 88,000
Pro-Active Dust Control - Field Scale Project Equipment	Equipment associated with Field Scale Projects (Formation)	\$ 150,000
Pro-Active Dust Control - Vail Cutoff Drain Field Scale Project Development & Monitoring	Development/Design of a pro-active dust control project through air quality consultant. Monitoring of project for dust efficiency after implementation. (Formation)	\$ 300,000
Pro-Active Dust Control - Vail Cutoff Drain Construction	Construction of Vail Cutoff Drain project by air quality implementation consultant. Costs covered in As-Needed Ag Related Services Contracts.	
Pro-Active Dust Control - Salton City Field Scale Project Development & Monitoring	Development/Design of a pro-active dust control project through air quality consultant. Monitoring of project for dust efficiency after implementation. (Formation)	\$ 210,000
Pro-Active Dust Control - Salton City Field Scale Construction	Construction of Salton City project by air quality implementation consultant. Costs covered in As-Needed Ag Related Services Contracts.	
Pro-Active Dust Control - Surface Surfactant Field Scale Project Development & Monitoring	Development/Design of a pro-active dust control project through air quality consultant. Monitoring of project for dust efficiency after implementation. (Formation)	\$ 150,000
Pro-Active Dust Control - Surface Surfactant Construction	Construction of Surface Surfactant project by air quality implementation consultant. Costs covered in As-Needed Ag Related Services Contracts.	\$ -
Pro-Active Dust Control - Unknown Project	Project development and implementation with unknown partner - ideally local farmer or company.	\$ 500,000
As-Needed Ag Related Services for Pro-Active Dust Control Projects - Surface Roughening	As-Needed Ag Related Services with a local contractor for surface roughening. Includes ag implements including but not limited to Bull Plow, Switch Plow, Border Disk and Land Plane equipment. Estimating \$3M for a 3 year contract - currently divided among 3 years. Would come back for budget amendment approval if over budget. Contracts would be re-solicited after 3 years.	\$ 1,000,000
As-Needed Ag Related Services for Pro-Active Dust Control Projects - Native Vegetation Planting	As-Needed Ag Related Services for native vegetation planting. Reclamation of soils at project sites, seed bed preparation, seeding of mixed seeds and seeding equipment. Includes compost & fertilizer. Estimating \$3M for 3 year contract. Would come back for budget amendment if over budget. Contracts would be re-solicited after 3 years.	\$ 1,000,000

<b>TASK 24 – AIR QUALITY</b>	<b>ACTIVITY DESCRIPTION</b>	<b>2018 BUDGET</b>
Pro-Active Dust Control - Well Field for West Side of the Sea	Evaluation of water resources around Salton City wash including dust control design, hydrogeology review, water well survey, and potential well field design	\$ 250,000
As-Needed Ag Related Services for Pro-Active Dust Control Projects - Irrigation	As-Needed Ag Related Services with a local contractor for irrigation needs related to establishment of native vegetation. Includes design of irrigation system based off of project design, supply of irrigation materials and irrigation of projects. Estimating \$3M for a 3 year contract - currently divided among 3 years. Would come back for budget amendment approval if over budget. . Contracts would be re-solicited after 3 years.	\$ 1,000,000
As-Needed Ag Related Services for Pro-Active Dust Control Project - Monitoring of Projects	As-Needed Ag Related Services with a local contractor for monitoring native vegetation sites for germination, plant establishments, irrigation needs and salinity targets within the soil. Estimating \$3M for a 3 year contract - currently divided among 3 years. Would come back for budget amendment approval if over budget. . Contracts would be re-solicited after 3 years.	\$ 1,000,000
Pilot Projects - Shallow Tile	Monitoring of shallow tile installation project at Poe Road or additional project.	\$ 61,200
Implement and Maintain Restricted Access to Playa	Includes gates, barricades and signs at playa access points. Includes time for IID personnel to create and install gates or signs.	\$ 200,000
Playa Restriction Public Outreach Campaign	Public outreach campaign with Off-Road groups, State Parks, BLM and Salton Sea communities	\$ 50,000
CARB Grant - Toxics Monitoring at Sonny Bono and Bombay Beach air stations	Grant with CARB/EPA will fund toxic monitoring equipment to be installed at Sonny Bono and Bombay Beach air stations. O&M of equipment plus expenses following the grant term (Thru Sept 2018). This type of monitoring is a requirement of the AQ Mitigation.	\$ 102,000
Future Grants with CARB/EPA/BOR/State of CA	Development of potential monitoring efforts, equipment or projects that could be funded by CARB, EPA, BOR or State of CA. Expenses would be to identify areas of interest and come up with grant project proposals.	\$ 200,000
FAP Grant - Salton Sea Marine Habitat Project	Septhon Water Technologies FAP Grant - Matching Funds. \$128K was approved in the FY 17 budget - funds were not spent during FY. Rebudgeting \$128K plus remaining match funds to complete FAP Grant term - pending grant extension (June 2018)	\$ 320,000
<b>Total Estimated Budget</b>		<b>\$ 10,787,450</b>



## Work Task 25: Minimize Dust Emissions from Fallowed Lands

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$57,775

**Description and Purpose:** To implement at least one of the Best Management Practices ("BMPs") to minimize PM<sub>10</sub> emissions prior to and after fallowing.

**Permit Reference:** SWRCB-8; EIR/EIS-AQ 3

**Accomplishments Through FY16:** Fallowed fields are required to have a crop left in place for dust mitigation at the owners expense. No cost to the JPA.

**FY17 Activities:** Fallowed fields are required to have a crop left in place for dust mitigation at the owners expense. No cost to the JPA.

**Proposed FY18 Activities:** Fallowed fields are required to have a crop left in place for dust mitigation at the owners expense. No cost to the JPA.

## Work Task 26: Drain Connectivity to Salton Sea Elevation Decrease

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$0

**Description and Purpose:** To ensure an appropriate level of connectivity between pupfish populations within individual drains that connect to the Sea and are below the first check (at the north and south ends of the Sea) if Salton Sea conditions become unsuitable for pupfish. To maintain created pupfish habitats for the duration of the term of the take permits.

**Permit Reference:** HCP-SS 2; In-Valley Biological Opinion; CESA Permit MMRP 79, 80

**Accomplishments Through FY16:** Included in Task 20.

**FY17 Activities:** Included in Task 20.

**Proposed FY18 Activities:** Drain connectivity for pupfish due to salinity levels is included in Task 20.

## Work Task 27: Grade Spoil/Roads from Drain Maintenance

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$0

**Description and Purpose:** When grading spoils from drain or canal cleaning, the soil to be graded will first be rolled away from the channel and broken up into small clods and slowly rolled back towards the channel. Care will be taken to not roll the soil back down the slope.

**Permit Reference:** Owl-3, HCP

**Accomplishments Through FY16:** Included in Task 15.

**FY17 Activities:** Included in Task 15.

**Proposed FY18 Activities:** IID protocols for drain and canal cleaning include spoil to be graded away from the channel. Costs for BUOW marking included in Task 15.

## Work Task 28: Power Line Markers for Pumpback and Seepage Recovery Systems

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$1,960

**Description and Purpose:** To install markers in accordance with industry standards in order to reduce bird strikes and to alert birds to the presence of the lines if IID builds additional power lines to provide power to pumps for tailwater return systems. If additional lines are erected, submit a report to USFWS and CDFW.

**Permit Reference:** HCP-AG 1; CESA Permit MMRP 55, 57

**Accomplishments Through FY16:** Powerline markers are included in costs associated with power to pumps for tailwater return systems.

**FY17 Activities:** Powerline markers are included in costs associated with power to pumps for tailwater return systems.

**Proposed FY18 Activities:** Powerline markers are included in costs associated with power to pumps for tailwater return systems.

## Work Task 29: Prepare and Implement Management Plan for Abandoned Portions of AAC

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$21,000	\$0

**Description and Purpose:** To prepare and implement a Management Plan for abandoned portions of AAC.

**Permit Reference:** CESA Permit MMRP 78

**Accomplishments Through FY16:** Analysis of AAC for O&M. Development of O&M Plan. No action in FY 16.

**FY17 Activities:** Analysis of AAC for O&M. Development of O&M Plan. No Costs anticipated in FY 17.

**Proposed FY18 Activities:** Implementation and management of abandoned portions of the AAC. Assume imagery costs every 5 years and development of the plan would be conducted with USFWS and CDFW. This task is assumed to be implemented once the AACLP is closed.

## Work Task 30: Southwestern Willow Flycatcher Surveys and Habitat Monitoring

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$61,378

**Description and Purpose:** To carry out Southwestern Willow Flycatcher Surveys.

**Permit Reference:** CESA Permit 4 (f) and MMRP 41, 42; HCP; In-Valley Biological Opinion, Willow Flycatcher Measures

**Accomplishments Through FY16:** Included in Task 23.

**FY17 Activities:** Included in Task 23.

**Proposed FY18 Activities:** Budget for this Task is included in Task 23.

## Work Task 31: Elf Owl Surveys

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$0

**Description and Purpose:** To carry out pre-construction surveys of potential habitat with a 0.25 mile radius for nesting owls.

**Permit Reference:** CESA Permit 4 (f) (ix) and MMRP 44

**Accomplishments Through FY16:** Budget for this Task is included in Task 23.

**FY17 Activities:** Budget for this Task is included in Task 23.

**Proposed FY18 Activities:** Budget for this Task is included in Task 23.

## Work Task 32: Desert Tortoise Survey and Avoidance

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$0

**Description and Purpose:** To carry out pre-construction surveys and avoidance or minimization.

**Permit Reference:** CESA Permit 4 (i) and MMRP 71 to 75; HCP DH 2 and DH 3

**Accomplishments Through FY16:** Budget for this Task is included in Task 23.

**FY17 Activities:** Budget for this Task is included in Task 23.

**Proposed FY18 Activities:** Budget for this Task is included in Task 23.



## Work Task 33: Least Tern Surveys

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$0

**Description and Purpose:** Permittee is to use fencing or other techniques to protect nesting terns if least terns begin nesting at the Salton Sea.

**Permit Reference:** CESA Permit 4 (e) and MMRP 20

**Accomplishments Through FY16:** Budget for this Task is included in Task 23.

**FY17 Activities:** Budget for this Task is included in Task 23.

**Proposed FY18 Activities:** Budget for this Task is included in Task 23.

## Work Task 34: Rail and Bittern Surveys

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$0

**Description and Purpose:** To carry out Managed Marsh monitoring and initial baseline monitoring of suitable agricultural drain habitat.

**Permit Reference:** CESA Permit 4 (g) and MMRPs 51, 52, 54; In-Valley Biological Opinion, Rail Measures; HCP

**Accomplishments Through FY16:** Budget for this Task is included in Task 23.

**FY17 Activities:** Budget for this Task is included in Task 23.

**Proposed FY18 Activities:** Budget for this Task is included in Task 23.

## Work Task 35: Management and Planning

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$19,060	\$25,475	\$18,870	\$326,258

**Description and Purpose:** Management and Planning.

**Permit Reference:** N/A

**Accomplishments Through FY16:** Costs for monthly accounting, invoicing and budget development.

**FY17 Activities:** Costs for monthly accounting, invoicing, and budget development.

**Proposed FY18 Activities:** Costs for monthly accounting, invoicing and budget development.

### Work Task 36: JPA Audit Fees

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$10,350	\$12,147	\$12,400	\$116,578

**Description and Purpose:** To pay for JPA audit fees.

**Permit Reference:** N/A

**Accomplishments Through FY16:** Costs for JPA Auditor.

**FY17 Activities:** Costs for JPA Auditor.

**Proposed FY18 Activities:** Costs for JPA Auditor.

### Work Task 37: JPA Bank Fees

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$1,600	\$1,024	\$1,600	\$22,549

**Description and Purpose:** To pay for JPA bank fees.

**Permit Reference:** N/A

**Accomplishments Through FY16:** Costs for JPA Bank Fees.

**FY17 Activities:** Costs for JPA Bank Fees.

**Proposed FY18 Activities:** Costs for JPA Bank Fees.

## Work Task 38: Financial Advisor

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$29,497

**Description and Purpose:** To pay for financial advisor services.

**Permit Reference:** N/A

**Accomplishments Through FY16:** In FY 07, the QSA JPA hired First Southwest Company as a financial advisor tasked with analyzing projected expenditures and existing payment schedules to develop options for upcoming deficit. This led to the 2007 Advanced Payment Agreement.

**FY17 Activities:** No costs for this task.

**Proposed FY18 Activities:** No costs for this task.

## Work Task 39: Bond Counsel Fees

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$25,000

**Description and Purpose:** To pay for bond counsel fees.

**Permit Reference:** NA

**Accomplishments Through FY16:** In FY 07, the QSA JPA hired Orrick, Herrington and Sutcliffe to advise on potential issuance of bonds.

**FY17 Activities:** No costs for this task.

**Proposed FY18 Activities:** No costs for this task.

## Work Task 40: 2001 Biological Opinion Measures

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$3,349,126

**Description and Purpose:** Bureau of Reclamation implementation of “on-river” measures including backwater marsh creation, razorback sucker stocking, willow flycatcher habitat, and bonytail chub rearing. Costs for this Task have been credited to the Water Authority.

**Permit Reference:** 2001 LCR BO; CESA

**Accomplishments Through FY16:** Section 9.5 of the JPA Agreement provides for a \$3.118 million credit for the Water Authority for certain on-river mitigation activities that are implemented by BOR. Specifically, the language states “SDCWA shall receive credit toward its payment obligations under this Agreement, not to exceed a present value of \$3,118,000, for payments made to BOR for satisfaction of Environmental Mitigation Requirements pursuant to that agreement among BOR, MWD, and SDCWA, dated October 10, 2003, regarding responsibility for implementation of Conservation and Mitigation Measures for the Colorado River described in a US Fish and Wildlife Service Biological Opinion dated January 12, 2001.”

**FY17 Activities:** No costs for this task.

**Proposed FY18 Activities:** No costs for this task.



## Work Task 41: Brown Pelican Coast

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$0

**Description and Purpose:** To construct, maintain, and monitor major coastal roost sites in San Diego Bay and Santa Barbara Harbor.

**Permit Reference:** CESA 4(d); 2002 In-Valley BO BP CM-1

**Accomplishments Through FY16:** The brown pelican was removed from the Federal endangered and threatened species list in 2009 due to recovery. No costs for this task.

**FY17 Activities:** No costs for this task.

**Proposed FY18 Activities:** No costs for this task.

## Work Task 42: Brown Pelican Sea

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$0	\$0	\$0	\$0

**Description and Purpose:** To deliver mitigation water to Salton Sea until 2017 (2030 per HCP) to stabilize elevation and moderate salinity.

**Permit Reference:** CESA 3(c); 2002 In-Valley BO BP CM-1; HCP SS-1

**Accomplishments Through FY16:** The brown pelican was removed from the Federal endangered and threatened species list in 2009 due to recovery. No costs for this task.

**FY17 Activities:** No costs for this task.

**Proposed FY18 Activities:** No costs for this task.

## Work Task 43: Salton Sea Shoreline Strand Study

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$50,000	\$0	\$20,000	\$0

**Description and Purpose:** To survey for and mitigate, if required, impacts to tamarisk scrub upon completion of SS mitigation deliveries.

**Permit Reference:** HCP SS-3; HCP 4(f)

**Accomplishments Through FY16:** No imagery was purchased in FY 16.

**FY17 Activities:** Purchase of shoreline strand imagery. No costs anticipated for FY 17.

**Proposed FY18 Activities:** Survey of Salton Sea vegetation at the beginning of 2018. Assumes additional surveys every five years to determine if mitigation is needed.

## Work Task 44: Pupfish Refugium

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$32,960	\$2,000	\$31,600	\$60,641

**Description and Purpose:** To construct and maintain one refugium pond.

**Permit Reference:** HCP SS-2; 2002 In-Valley BO DP CM-1; CESA 4(j)

**Accomplishments Through FY16:** O&M on refugium - no pupfish. Installed bird netting, additional gravel, and sun shades.

**FY17 Activities:** Irrigation water. Pupfish refugium stocked with pupfish in Nov 2016. Management plan development in FY 18. Pupfish trapping for stocking ponds.

**Proposed FY18 Activities:** Development and execution of a refugium management plan. Costs for water and management. Expenses associated with pupfish trapping/relocating.

## Work Task 45: Recreation Facilities at Salton Sea

PROPOSED FY 2018	PROJECTED FY 2017	BUDGETED FY 2017	SPENT THROUGH FY 2016
\$4,590	\$6,564	\$9,500	\$1,128

**Description and Purpose:** To relocate boat launch site and/or maintain boat launch connection to Salton Sea.

**Permit Reference:** SWRCB Order Measure R-7; 2002 EIS/EIR Measure R-7

**Accomplishments Through FY16:** Inventory of recreational facilities around the Salton Sea.

**FY17 Activities:** monitoring of recreation facilities for connection at the end of 2017.

**Proposed FY18 Activities:** Costs associated with any permits needed for continued connectivity of boat ramps that are connected to the Salton Sea at the end of 2017. Recommendation of holding public workshops to inform Salton City Communities of mitigation measure and why some boat launches will remain open.