

FY
2019

QSA JPA Fiscal Year 2019 Budget & Work Plan

ADOPTED
MAY 31, 2018



QUANTIFICATION SETTLEMENT AGREEMENT JOINT POWERS AUTHORITY

4677 OVERLAND AVE, SAN DIEGO, CA 92123

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QSA JPA FISCAL YEAR 2019 BUDGET

SECTION 1: BACKGROUND

The Quantification Settlement Agreement Joint Powers Authority (QSA JPA) administers funding of environmental mitigation requirements related to the 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.

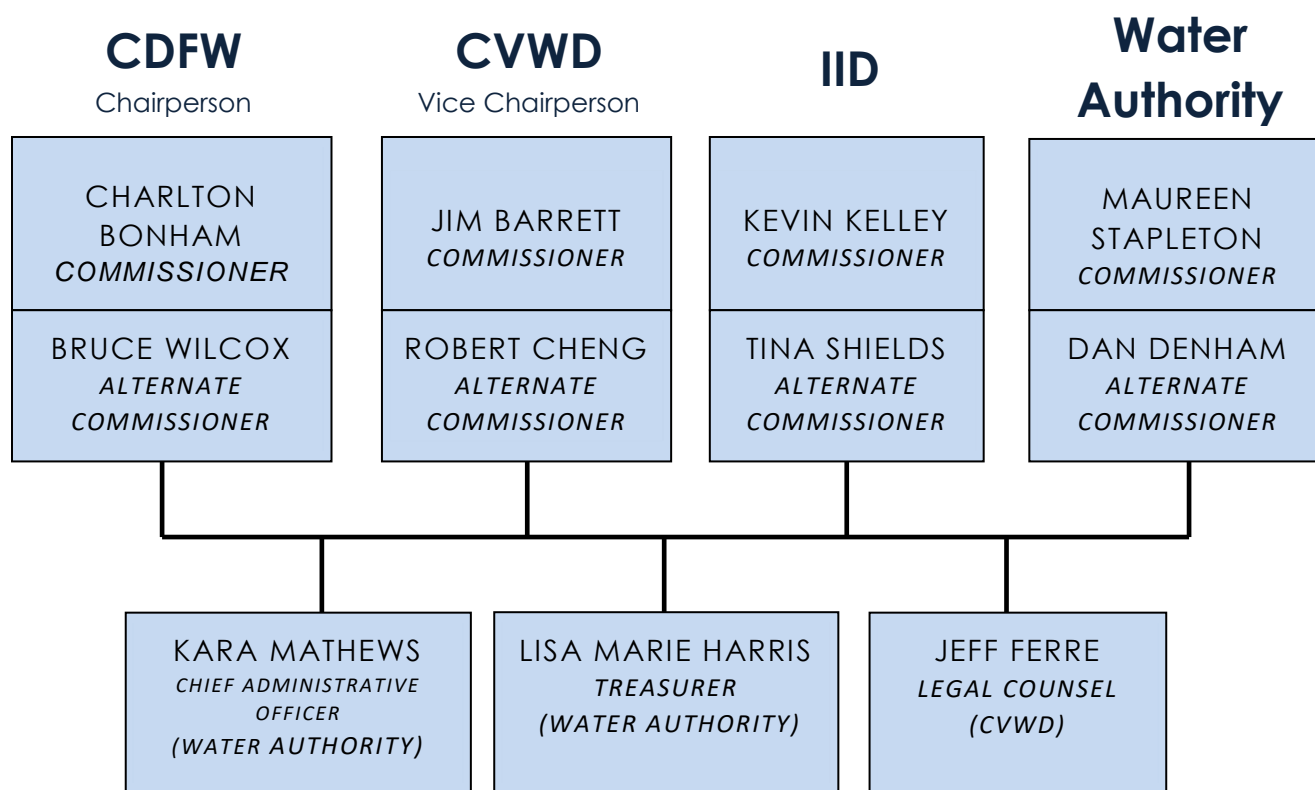


Figure 2. QSA JPA Organization Chart

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 (FY) 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 2017 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
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
Total	\$15,534,048	\$1,500,000	\$81,467,985	\$9,625,000	\$17,959,754	\$4,350,000	\$130,436,788	\$152,870,670

SECTION 3: REVIEW OF ACTIVITIES IN FY 2018 AND FY 2017

On May 17, 2017, the QSA JPA Commission adopted the FY 2018 budget in the amount of \$25,534,353. Table 2 shows the FY 2018 approved and projected budget spending, based on approved invoice totals to date and remaining fiscal year projections by IID. Projected FY 2018 expenditures by mitigation task are shown in Table 2. There have been no amendments to the budget, and the total FY 2018 budget is expected to remain the same through the end of the fiscal year. Major expenses in the FY 2018 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 task items to increase total funding for recreation facilities at the Salton Sea (Task 45). Funding for this transfer 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 2018 Expenditures

TASK	TASK DESCRIPTION	PROJECTED FY-2018	BUDGETED FY-2018	BUDGET SAVINGS
2	QSA Implementation Team Biologists	\$1,220,000	\$1,220,330	\$330
3	Environmental Reporting and Monitoring	\$250	\$510	\$260
4	Salton Sea Salinity and Elevation Program	\$5,396	\$6,600	\$1,204
5	Salton Sea Mitigation Water to Salton Sea	\$9,963,523	\$9,963,523	\$0
6	Tamarisk Scrub Habitat - Surveys and Mitigation	\$150,000	\$208,970	\$58,970
7	Drain Habitat – Initial Vegetation and Surveys	\$0	\$0	\$0
8	Drain Habitat (Aquatic) - Create/Manage/Monitor "Managed Marsh" Areas	\$1,250,000	\$1,896,820	\$646,820
10/10a	Worker Education Program Training and Manual	\$1,000	\$10,710	\$9,710
11	Desert Habitat Survey and Mapping of Right of Way	\$0	\$32,890	\$32,890
12	Desert Habitat Create/Maintain Desert Habitat	\$0	\$0	\$0
15	Pre-Construction Burrowing Owl Surveys/Relocation	\$10,000	\$20,720	\$10,720
16	Burrowing Owl Relative Abundance Surveys	\$0	\$153,000	\$153,000
17	Farmer and Public Education Program	\$4,000	\$5,000	\$1,000
18	Desert Pupfish Abundance and Distribution Study	\$1,000	\$5,370	\$4,370
19/19A	Pupfish Selenium Drain Studies	\$350,000	\$557,820	\$207,820
20	Pupfish Conservation Measures	\$15,000	\$203,390	\$188,390
21	Salvage of Razorback Suckers when Dewatering Canals	\$0	\$3,070	\$3,070
23	Covered Species Baseline and Monitoring Surveys	\$5,000	\$339,620	\$334,620
24	Salton Sea Air Quality	\$6,000,000	\$10,787,450	\$4,787,450
29	Management Plan for Abandoned Portions of AAC	\$0	\$0	\$0
30	Southwestern Willow Flycatcher Surveys/Monitoring	\$0	\$0	\$0
35	Management and Planning	\$4,000	\$19,060	\$15,060
36	JPA Audit Fees	\$10,350	\$10,350	\$0
37	JPA Bank Fees	\$1,600	\$1,600	\$0
43	Salton Sea Shoreline Strand Study	\$7,000	\$50,000	\$43,000
44	Pupfish Refugium	\$20,000	\$32,960	\$12,960
45	Recreation Facilities at Salton Sea	\$10,998	\$4,590	-\$6,408
Total		\$19,029,117	\$25,534,353	\$6,505,236

The projected budget savings and delayed expenditures for FY 2018 of \$6,505,236 is mostly due to the deferral of items under the air quality mitigation program (Task 24), postponement of managed marsh creation activities (Task 8), and postponement of covered species baseline monitoring surveys (Task 23). Table 3 summarizes the FY 2018 budget projections.

Table 3. FY 2018 Budget Summary

ADOPTED FY 2018 BUDGET	PROJECTED FY 2018 EXPENDITURES	PROJECTED FY 2018 SAVINGS/DELAYS
\$ 25,534,353	\$ 19,029,117	\$ 6,505,236

On September 20, 2017 the QSA JPA Commission accepted an audit of its basic financial statements by Davis Farr Certified Public Accountants for fiscal years ending June 30, 2017 and 2016. Audited FY 2017 environmental mitigation expenditures totaled \$23,406,274. Based upon the audited cash balance of \$19,528,483 at the end of FY 2017, FY 2018 projected agency contributions and interest earnings of \$22,633,882, and projected FY 2018 budget spending of \$19,029,117, the QSA JPA expects to have a positive cash balance of \$23,133,248 at the end of FY 2018 (Table 4).

Table 4. FY 2018 Projected Fund Balance

DESCRIPTION		CASH FLOW
FY 2017 Audited Fund Balance (6-30-17)		\$19,528,483
Sources	Mitigation Contributions	\$22,433,882
	Interest Income	\$200,000
		\$22,633,882
Uses	Environmental Mitigation	(\$19,029,117)
FY 2018 Projected Fund Balance (6-30-18)		\$23,133,248

SECTION 4: FY 2019 BUDGET

The FY 2018 budget provides projected revenues of \$22,633,882 to meet anticipated expenditures from July 1, 2017 through June 30, 2018 of \$19,029,117, resulting in a net gain of \$3,604,765 from the previous fiscal year. FY 2019 will begin with the projected year-end FY 2018 fund balance of \$23,133,248.

Information summarizing the FY 2019 Budget is presented in Tables 5 and 6. Table 5 provides the agency contributions scheduled for FY 2019 per the 2015 Advanced Funding Agreement, as well as funding contributions by agency through FY 2018. Revenue sources for FY 2019 include funding contributions of \$20,121,404 from the water agencies and interest income estimated at \$200,000.

Table 5. Summary of Mitigation Contributions by Water Agency

AGENCY	CONTRIBUTIONS THROUGH FY 2018	FY 2019 CONTRIBUTIONS
CVWD	\$ 49,891,894	\$ 5,695,516
IID	\$ 35,628,631	\$ 5,761,221
Water Authority ¹	\$ 68,728,106	\$ 8,664,667
Total Agency Contributions	\$ 154,248,631	\$ 20,121,404

Projected spending in FY 2019 is \$15,129,270 for environmental mitigation, shown by mitigation task in Table 7. Based upon the projected cash balance of \$23,133,248 at the end of FY 2018, FY 2019 combined sources of \$20,121,404, and projected FY 2019 budget spending of \$15,129,270, the QSA JPA expects to have a positive cash balance of \$28,275,382 at the end of FY 2019 (Table 6). Projected sources exceed uses indicating a gain of \$5,192,134 in cash reserves for FY 2019.

Table 6. FY 2019 Projected Fund Balance

DESCRIPTION			CASH FLOW
FY 2018 Projected Cash Balance (6-30-18)			\$23,133,248
Sources	Mitigation Contributions	\$20,121,404	\$20,321,404
	Interest Income	\$200,000	
Uses	Environmental Mitigation		(\$15,129,270)
FY 2019 Projected Cash Balance (6-30-19)			\$28,325,382

¹ 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 2019 Expenditures

TASK	TASK DESCRIPTION	FY 2019 BUDGET
1	QSA Implementation Team	\$ -
2	QSA Implementation Team Biologists	\$ 1,157,740
3	Environmental Reporting and Monitoring	\$ 510
4	Salton Sea Salinity and Elevation Program	\$ 16,600
5	Salton Sea Mitigation Water to Salton Sea	\$ 16,610
6	Tamarisk Scrub Habitat - Surveys and Mitigation	\$ 368,560
7	Drain Habitat - Initial Vegetation and Habitat Surveys	\$ -
8	Drain Habitat (Aquatic) - Create/Manage/Monitor "Managed Marsh" Areas	\$ 4,555,000
9	Drain Habitat Restrictions/Requirements for Construction and Maintenance	\$ -
10/10a	Worker Education Program Covered Species Training and Manual	\$ 600
11	Desert Habitat Survey and Mapping of Right of Way	\$ 32,000
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	\$ 14,100
16	Burrowing Owl Relative Abundance and Distribution Surveys	\$ 157,000
17	Farmer and Public Education Program	\$ 5,000
18	Desert Pupfish Abundance and Distribution Study	\$ 6,000
19/19A	Pupfish Selenium Drain Studies	\$ 421,000
20	Pupfish Construction and Maintenance Conservation Measures	\$ 933,000
21	Salvage of Razorback Suckers when Dewatering Canals	\$ -
22	Maintain Habitat on Fallowed Parcels	\$ -
23	Covered Species Baseline and Monitoring Surveys	\$ 316,000
24	Salton Sea Air Quality	\$ 7,065,000
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	\$ 12,000
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	\$ 10,000
44	Pupfish Refugium	\$ 30,600
45	Recreation Facilities at Salton Sea	\$ -
Total		\$ 15,129,270

SECTION 5: FY 2019 WORK PLAN

The FY 2019 budget totaling \$15,129,270 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 environmental permit requirements of the QSA water transfers. Major expenditure categories for mitigation measures to be implemented in FY 2019 are funding for the biologist team (Task 2), the Managed Marsh (Task 8), pupfish habitat construction (Task 20), and Salton Sea air quality mitigation (Task 24) (Table 8).

Table 8. Major Expenditures in FY 2019

TASK	TASK DESCRIPTION	FY 2019 BUDGET	PERCENT OF TOTAL BUDGET
2	QSA Implementation Team Biologists	\$ 1,157,740	8%
8	Drain Habitat (Aquatic) - Create/Manage/Monitor "Managed Marsh" Areas	\$ 4,555,000	30%
20	Pupfish Construction and Maintenance Conservation Measures	\$ 933,000	6%
24	Salton Sea Air Quality	\$ 7,065,000	47%
--	Other Tasks	\$ 1,418,530	9%
Total		\$ 15,129,270	100%

Implementation of the Air Quality Mitigation Program (AQMP) (Task 24) is the largest budgeted expenditure for FY 2019 totaling \$7,065,000 or 47 percent of the total FY 2019 budget. Air quality mitigation 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 2019 budget also includes \$250,000 for the Salton Sea Marine Habitat Project by Sephton Technologies that was approved by the Commission on December 5, 2016 to be included in the FY 2017 and FY 2018 budgets. No funding was spent in FY 2017 or 2018, and the approved funding is being rolled over into the FY 2019 budget.

Mitigation water to the Salton Sea (Task 5) concluded in calendar year 2017 and will no longer be included in budgets going forward. In calendar year 2017, 150,000 acre-feet of water totaling \$19,927,045 was scheduled. A total of 800,000 acre-feet of mitigation water has been delivered to the sea from 2003 to 2017 for a cost of approximately \$90,000,000.

While not included in the FY 2019 budget, previous budgets have 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 (Task 8) is the second largest budgeted expenditure at \$4,555,000, accounting for 30 percent of the total FY 2019 budget. Expenditures in FY 2019 include maintenance of the existing marsh and planning for the final phase to be constructed in 2019. The Managed Marsh complex is constructed on land owned by IID. There is an analysis underway of options for pricing and purchase of the Managed Marsh complex land from IID that is expected to be brought to the Commission for review in FY 2019.

The QSA Implementation Team Biologists (Task 2) makes up \$1,157,740 or 8 percent of the total budget. This item includes funding for seven full time staff and expenses for their fleet of vehicles.

Desert Pupfish habitat construction and maintenance conservation measures make up \$933,000 or 6 percent of the budget.

Wildlife and habitat studies, monitoring, and education and outreach make up the remaining 9 percent of the FY 2019 expenditures totaling \$1,418,530.

Detailed summaries for individual mitigation measures by task including mitigation requirements; historical spending; a detailed breakdown of FY 2019 expenditures; and planned and completed work are included in Appendix 2.

Appendix 1 – Audited Historical QSA JPA Spending, FY 2004 - FY 2017

Task	Task Description	Total FY 2004-2017	FY 2017	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	QSA Implementation Team	\$383,879						\$1,440	\$1,512	\$10,484	\$36,842	\$92,216	\$91,906	\$103,876	\$45,603	
2	QSA Implementation Team Biologists	\$4,685,334	\$769,055	\$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	\$82,458									\$17,385	\$32,170	\$7,639	\$68	\$25,196	
4	Salton Sea Salinity and Elevation Program	\$5,489													\$5,489	
5	Salton Sea Mitigation Water to Salton Sea	\$79,736,583	\$18,412,449	\$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	\$9,548										\$1,108	\$7,124	\$1,316		
7	Drain Habitat - Initial Vegetation and Habitat Surveys	\$209,123											\$663	\$11,991	\$196,469	
8	Drain Habitat (Aquatic) - Create/Manage/Monit or "Managed Marsh" Areas	\$9,425,701	\$297,032	\$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/Require ments for Construction and Maintenance	\$8,473												\$8,473		
10/ 10a	Worker Education Program Covered Species Training and Manual	\$35,302										\$2,315	\$20,204	\$10,854	\$1,929	
11	Desert Habitat Survey and Mapping of Right of Way	\$379,191												\$323,224	\$55,967	
12	Desert Habitat Create/Maintain Desert Habitat	\$17,300												\$17,300		
13	Changes to Operations on IID Canals to Avoid Covered Species	\$0														
14	Burrowing Owl Worker Annual Education and Manual	\$10,411											\$2,580	\$6,505	\$1,326	
15	Pre-Construction Activity Burrowing	\$916,458	\$1,540	\$6,765		\$4,020	\$756	\$35	\$173,309	\$171,203	\$142,268	\$159,363	\$135,268	\$118,666	\$3,265	

Appendix 1 – Audited Historical QSA JPA Spending, FY 2004 - FY 2017

Task	Task Description	Total FY 2004-2017	FY 2017	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
	Owl Surveys and Relocation															
16	Burrowing Owl Relative Abundance and Distribution Surveys	\$3,039,400	\$20,000	\$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 Program	\$7,968	\$935	\$1,416	\$1,435	\$2,876	\$260		\$499						\$547	
18	Desert Pupfish Abundance and Distribution Study	\$14,283		\$24		\$14			\$767				\$554	\$12,924		
19/19A	Pupfish Selenium Drain Studies	\$1,981,149	\$66,650		\$1,482			\$14,333	\$261,123	\$328,148	\$176,793	\$474,401	\$343,736	\$156,587	\$157,896	
20	Pupfish Construction and Maintenance Conservation Measures	\$37,232	\$504					\$5,800	\$22,778						\$8,150	
21	Salvage of Razorback Suckers when Dewatering Canals	\$9,534											\$166	\$6,626	\$2,742	
22	Maintain Habitat on Fallowed Parcels	\$0														
23	Covered Species Baseline and Monitoring Surveys ²	\$5,394,388	\$947	\$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	Salton Sea Air Quality	\$10,862,379	\$3,809,309	\$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	\$57,775											\$1,298	\$5,157	\$51,320	
26	Drain Connectivity to Salton Sea Elevation Decrease	\$0														
27	Grade Spoil/Roads from Drain Maintenance	\$0														
28	Power Line Markers for Pumpback and Seepage Recovery Systems	\$1,960									\$1,960					

² Includes Avian Studies from FY 2006, 2007, and 2008.

Appendix 1 – Audited Historical QSA JPA Spending, FY 2004 - FY 2017

Task	Task Description	Total FY 2004-2017	FY 2017	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
29	Prepare and Implement Management Plan for Abandoned Portions of AAC	\$0														
30	Southwestern Willow Flycatcher Surveys and Habitat Monitoring ³	\$62,938										\$62,717			\$221	
31	Elf Owl Surveys	\$0														
32	Desert Tortoise Survey and Avoidance	\$0														
33	Least Tern Surveys	\$0														
34	Rail and Bittern Surveys	\$0														
35	Management and Planning	\$335,612	\$9,354	\$4,190	\$3,229	\$3,950	\$4,618	\$5,713	\$5,442	\$23,647	\$17,808	\$64,954	\$48,390	\$47,903	\$96,414	
36	JPA Audit Fees	\$126,928	\$10,350	\$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	\$24,133	\$1,584	\$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	\$29,497											\$29,497			
39	Bond Counsel Fees	\$25,000											\$25,000			
40	2001 Biological Opinion Measures	\$3,349,126								\$262,272	\$2,199,283	\$290,365	\$466,006	\$131,200		
41	Brown Pelican Coast	\$0														
42	Brown Pelican Sea	\$0														

³ Includes Task 46 from previous years.

Appendix 1 – Audited Historical QSA JPA Spending, FY 2004 - FY 2017

Task	Task Description	Total FY 2004-2017	FY 2017	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
43	Salton Sea Shoreline Strand Study	\$0														
44	Pupfish Refugium	\$60,641		\$1,840	\$21,284				\$1,407	\$24,208	\$6,222	\$5,680				
45	Recreation Facilities at Salton Sea	\$7,693	\$6,565		\$1,128											
Total		\$121,332,886	\$23,406,274	\$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		\$3,349,126								\$262,272	\$2,199,283	\$290,365	\$466,006	\$131,200		
Total JPA Expenditures		\$94,577,486		\$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

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$0	\$0	\$0	\$383,879

Description and Purpose: The QSA Implementation Team is to hold 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 FY17: Monthly and quarterly implementation team meetings.

FY18 Activities: Quarterly implementation team meetings:

- March 2018
- December 2017
- September 2017
- June 2017

Planned FY19 Activities: Quarterly implementation team meetings. Costs included in Task 2 for staff time and vehicle expenses.

Work Task 2: QSA Implementation Team Biologists

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$1,157,740	\$1,220,000	\$1,220,330	\$4,685,334

Description and Purpose: Salary and expenses for IT Biologists.

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

Accomplishments Through FY17: Environmental Mitigation Staff.

FY18 Activities: Environmental Mitigation Staff.

Planned FY19 Activities: Environmental Mitigation Staff.

Work Task 3: Environmental Reporting and Monitoring

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$510	\$250	\$510	\$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 FY17: Annual report sent by March 31st of each year for the previous calendar year.

FY18 Activities: Printing and shipping costs for annual reports. Annual Report sent March 2018 for activities completed in calendar year 2017.

Planned FY19 Activities: Printing and shipping costs for annual reports.

Work Task 4: Salton Sea Salinity and Elevation Program

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$16,600	\$5,396	\$6,600	\$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 FY17: Annual selenium monitoring.

FY18 Activities: Selenium Analysis at the Salton Sea.

Planned FY19 Activities: Selenium analysis at the Salton Sea.

Work Task 5: Salton Sea Mitigation Water to Salton Sea

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$16,610	\$9,963,523	\$9,963,523	\$79,736,583

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 MMRP13

Accomplishments Through FY17: Mitigation water was delivered per calendar year, broken up over two fiscal years, from 2003 to 2017.

FY18 Activities: Delivery of mitigation water through December 31, 2017. After finalized water accounting, the remainder of calendar year 2017 mitigation water in the amount of 125 acre-feet is scheduled for delivery in FY 18.

Planned FY19 Activities: If the remaining calendar year 2017 delivery is not completed in FY18, it will fall under FY19. The budget does not include payback mitigation water from 2011.

Work Task 6: Tamarisk Scrub Habitat - Surveys and Mitigation

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$368,560	\$150,000	\$208,970	\$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 FY17: Managed Marsh Complex native tree habitat in buffer zones installed.

FY18 Activities: Operation and maintenance of native tree habitat.

Planned FY19 Activities: Operation and maintenance of native tree habitat.

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

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: Baseline drain vegetation surveys were conducted in 2005 to determine acreage amounts for the Managed Marsh Complex and habitat types. 950 acres of emergent, open water and riparian habitats.

FY18 Activities: N/A

Planned FY19 Activities: N/A

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

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$4,555,000	\$1,250,000	\$1,896,820	\$9,425,701

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 marsh.

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 FY17: Phase 1 built in 2009 - 365 acres. Phase 2 built in 2014 - 360 acres. Phase 3 planning began in 2017. Buffer zones double as native tree habitat for construction projects.

FY18 Activities: Operation & maintenance of Phase I and II of Managed Marsh Complex conducted.

Planned FY19 Activities: Operation & Maintenance of Phase I and II of Managed Marsh Complex to be conducted. Phase III Design and Construction to be carried out.

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

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: Pre-construction surveys for construction activities.

FY18 Activities: N/A

Planned FY19 Activities: Costs of biological monitors included as Environmental Specialists in Task 2.

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

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$600	\$1,000	\$10,710	\$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 FY17: Annual worker education trainings conducted at the beginning of each calendar year and then an additional training mid-year for new employees.

FY18 Activities: Annual worker education program.

Planned FY19 Activities: Annual worker education program.

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

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$32,000	\$0	\$32,890	\$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 FY17: Habitat survey conducted as part of initial habitat mapping at the beginning of QSA.

FY18 Activities: No items performed for this task in FY18. Costs rebudgeted in FY19 for implementation.

Planned FY19 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.

Work Task 12: Desert Habitat Create/Maintain Desert Habitat

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$0	\$0	\$0	\$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 FY17: N/A

FY18 Activities: N/A

Planned FY19 Activities: N/A

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

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: No major modifications to operations and maintenance activities.

FY18 Activities: N/A

Planned FY19 Activities: Assumes no changes to operation activities during FY19. 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

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: 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

FY18 Activities: N/A

Planned FY19 Activities: Annual education program rolled into Task 10/10A.

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

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$14,100	\$10,000	\$20,720	\$916,458

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 FY17: Annual inspections of canals and drains prior to all operations and maintenance activities.

FY18 Activities: Purchase of burrowing owl inspection materials.

Planned FY19 Activities: Pre-inspection activities are conducted by HCP Team members as soon as an operation/maintenance or construction activity is identified. HCP Team member and vehicles are covered under Task 2. Costs to Task 15 include materials and equipment. Assume no more

Work Task 16: Burrowing Owl Relative Abundance and Distribution Surveys

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$157,000	\$0	\$153,000	\$3,039,400

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 FY17: Population Studies conducted in 2007/2008. Sub-Sampling conducted in 2011/2012. "Efficacy study" on burrowing owl marking protocol in 2015/2016.

FY18 Activities: Solicitation for Burrowing Owl population studies conducted.

Planned FY19 Activities: Burrowing Owl population surveys.

Work Task 17: Farmer and Public Education Program

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$5,000	\$4,000	\$5,000	\$7,968

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 FY17: Design an ad and public outreach presentations to various groups.

FY18 Activities: Design an ad program carried out.

Planned FY19 Activities: Public outreach presentations, design an ad, etc.

Work Task 18: Desert Pupfish Abundance and Distribution Study

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$6,000	\$1,000	\$5,370	\$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 FY17: Desert pupfish distribution monitoring protocol, purchasing of equipment, and implementation to date.

FY18 Activities: Pupfish surveys conducted.

Planned FY19 Activities: Pupfish distribution surveys and equipment costs.

Work Task 19/19A: Pupfish Selenium Drain Studies

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$421,000	\$350,000	\$557,820	\$1,981,149

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 FY17: USGS Selenium Study completed in 2009. Recommendations from USGS study used to create Selenium Work Plan for the RWQCB Ag Waiver completed.

FY18 Activities: Equipment purchases made for selenium study.

Planned FY19 Activities: Selenium analysis within IID drains, equipment costs, and data analysis.

Work Task 20: Pupfish Construction and Maintenance Conservation Measures

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$933,000	\$15,000	\$203,390	\$37,232

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 FY17: Any required drain maintenance activities have been consulted with CDFW. Pupfish trapping occurred five consecutive days with no pupfish caught before work has started.

FY18 Activities: Concept habitats for pupfish.

Planned FY19 Activities: Pupfish drain interconnection of five drains and operations and maintenance.

Work Task 21: Salvage of Razorback Suckers when Dewatering Canals

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$0	\$0	\$3,070	\$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 FY17: No relocation efforts have been conducted to date.

FY18 Activities: N/A

Planned FY19 Activities: Should Razorback Suckers be found in a canal or reservoir, and need returning to the Colorado River, the HCP Team and IID Biological Control will conduct relocation efforts. The budget includes assumed costs for four Biological Control Hatchery Workers fo

Work Task 22: Maintain Habitat on Fallowed Parcels

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$0	\$0	\$0	\$0

Description and Purpose: N/A

Permit Reference: N/A

Accomplishments Through FY17: Task has no value. Fallowed parcels are privately owned with residual cover from previous crops. Fallowed parcels are scattered around the valley, so no one area has had a significant percentage of fallowed lands.

FY18 Activities: N/A. Fallowing is no longer conducted as a conservation measure post 2017.

Planned FY19 Activities: N/A. Fallowing is no longer conducted as a conservation measure post 2017.

Work Task 23: Covered Species Baseline and Monitoring Surveys

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$316,000	\$5,000	\$339,620	\$5,394,388

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 FY17: 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.

FY18 Activities: Marsh bird and southwestern willow flycatcher surveys by HCP team.

Planned FY19 Activities: Covered species surveys.

Work Task 24: Salton Sea Air Quality

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$7,065,000	\$6,000,000	\$10,787,450	\$10,862,379

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 FY17: Emissions Inventory and Monitoring Program, Air Quality Plan Development, Air Station Network, and Data Validation. Air Quality Pilot Projects carried out - Surfactant Project, Alamo River North, and Emissions Inventory. Air Quality Plan developed in July

FY18 Activities: Annual emissions inventory, Air Quality network operations & maintenance, proactive dust control planning, groundwater development, air quality mitigation planning, restricting access, shallow tile install, and Sephton Water Tech project.

Planned FY19 Activities: Annual emissions inventory, air quality network operations & maintenance, proactive dust control planning, groundwater development, air quality mitigation planning, restricting access, shallow tile install, Sephton Water Tech project.

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

Appendix 2 – Work Plan by Mitigation Task

Task 24 – Air Quality	Activity Description	2019 Budget
Annual Emissions Estimate	Develop fiscal year annual emissions estimate: map playa exposure, monitor playa characteristics, PISWERL, estimate annual emissions, and identify areas for proactive dust control projects.	\$925,000
AQ Network Operations & Maintenance	O&M for 6 Air Quality stations, O&M for portable MET/camera stations, and O&M for Roundshot camera network.	\$525,000
Proactive Dust Control Projects - Planning, Characterization & Design	Planning and design specs for proactive dust control projects.	\$530,000
Proactive Dust Control Projects - Implementation & Construction	Implementation of construction for projects using As-Need Ag Services contracts.	\$1,310,000
Proactive Dust Control Projects - Performance Monitoring & Reporting	Monitoring of proactive dust control projects.	\$790,000
Stakeholder Support	Coordination with ICAPCD, SCAQMD, CARB, and other agencies.	\$210,000
Groundwater Resource Development - Groundwater Test Well	Installation of groundwater test well at Tule Wash and Clubhouse for future pilot study if production wells are feasible.	\$620,000
Groundwater Resource Development - Shallow Groundwater Monitoring	Maintain and expand access tube transects at locations around Salton Sea. Analyze shallow groundwater changes around the Salton Sea.	\$260,000
AQ Mitigation Planning	Collect soil cores on current and future exposed playa to estimate emissions potential for future playa. Prioritize areas that will need dust control based on soil conditions and anticipated emissions potential. Focusing on playa from 2017 to 2028.	\$1,050,000
Restrict Access	Restrict public access on playa using signs, gates, and partially funding Imperial County Sheriffs for high traffic weekends to issue tickets.	\$200,000
Shallow Tile Installation	Installation of shallow tile for agricultural reclamation on a small plot on the south end of the Salton Sea.	\$65,000
As Needed Technical & Field Services	Unanticipated support from outside services, may include: regulatory support, field monitoring, and instrumentation replacement.	\$330,000
Sephton Water Technology Project	In-kind funds for Salton Sea Marine Habitat Pilot Project - project end date June 30, 2018 - this will cover outstanding billing.	\$250,000
Total Estimated Budget		\$7,065,000

Work Task 25: Minimize Dust Emissions from Fallowed Lands

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$0	\$0	\$0	\$57,775

Description and Purpose: To implement at least one of the Best Management Practices ("BMPs") to minimize PM10 emissions prior to and after fallowing.

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

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

FY18 Activities: N/A

Planned FY19 Activities: N/A

Work Task 26: Drain Connectivity to Salton Sea Elevation Decrease

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: Drain connectivity for pupfish due to salinity levels is included in Task 20.

FY18 Activities: Included in Task 20.

Planned FY19 Activities: Included in Task 20.

Work Task 27: Grade Spoil/Roads from Drain Maintenance

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: IID protocols for drain and canal cleaning include spoil to be graded away from the channel. Costs for burrowing owl marking included in Task 15.

FY18 Activities: Included in Task 15.

Planned FY19 Activities: Included in Task 15.

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

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: N/A

FY18 Activities: N/A

Planned FY19 Activities: N/A

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

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$0	\$0	\$0	\$0

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

Permit Reference: CESA Permit MMRP 78

Accomplishments Through FY17: N/A

FY18 Activities: N/A

Planned FY19 Activities: N/A

Work Task 30: Southwestern Willow Flycatcher Surveys and Habitat Monitoring

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$0	\$0	\$0	\$62,938

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 FY17: Included in Task 23.

FY18 Activities: Included in Task 23.

Planned FY19 Activities: Included in Task 23.

Work Task 31: Elf Owl Surveys

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: Included in Task 23.

FY18 Activities: Included in Task 23.

Planned FY19 Activities: Included in Task 23.

Work Task 32: Desert Tortoise Survey and Avoidance

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: Included in Task 23.

FY18 Activities: Included in Task 23.

Planned FY19 Activities: Included in Task 23.

Work Task 33: Least Tern Surveys

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: Included in Task 23.

FY18 Activities: Included in Task 23.

Planned FY19 Activities: Included in Task 23.

Work Task 34: Rail and Bittern Surveys

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: Included in Task 23.

FY18 Activities: Included in Task 23.

Planned FY19 Activities: Included in Task 23.

Work Task 35: Management and Planning

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$12,000	\$4,000	\$19,060	\$335,612

Description and Purpose: Management and Planning.

Permit Reference: N/A

Accomplishments Through FY17: Costs for monthly accounting, invoicing, and budget development.

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

Planned FY19 Activities: Costs for monthly accounting, invoicing, and budget development.

Work Task 36: JPA Audit Fees

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$10,350	\$10,350	\$10,350	\$126,928

Description and Purpose: To pay for JPA audit fees.

Permit Reference: N/A

Accomplishments Through FY17: Costs for JPA Auditor.

FY18 Activities: Costs for JPA Auditor.

Planned FY19 Activities: Costs for JPA Auditor.

Work Task 37: JPA Bank Fees

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$1,600	\$1,600	\$1,600	\$24,133

Description and Purpose: To pay for JPA bank fees.

Permit Reference: N/A

Accomplishments Through FY17: Costs for JPA Bank Fees.

FY18 Activities: Costs for JPA Bank Fees.

Planned FY19 Activities: Costs for JPA Bank Fees.

Work Task 38: Financial Advisor

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$0	\$0	\$0	\$29,497

Description and Purpose: To pay for financial advisor services.

Permit Reference: N/A

Accomplishments Through FY17: In FY07, the QSA JPA hired First Southwest Company as a financial advisor tasked with analyzing projected expenditures and existing payment schedules to develop options for an upcoming deficit. This led to the 2007 Advanced Payment Agreement.

FY18 Activities: N/A

Planned FY19 Activities: N/A

Work Task 39: Bond Counsel Fees

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$0	\$0	\$0	\$25,000

Description and Purpose: To pay for bond counsel fees.

Permit Reference: N/A

Accomplishments Through FY17: In FY07, the QSA JPA hired Orrick, Herrington and Sutcliffe to advise on the potential issuance of bonds.

FY18 Activities: N/A

Planned FY19 Activities: N/A

Work Task 40: 2001 Biological Opinion Measures

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: Section 9.5 of the JPA Agreement provides for a \$3.118 million credit to the Water Authority for certain on-river mitigation activities that are implemented by the Bureau of Reclamation (BOR). Specifically, the language states “SDCWA shall receive credit

FY18 Activities: N/A

Planned FY19 Activities: N/A

Work Task 41: Brown Pelican Coast

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: N/A

FY18 Activities: N/A

Planned FY19 Activities: N/A

Work Task 42: Brown Pelican Sea

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$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 FY17: N/A

FY18 Activities: N/A

Planned FY19 Activities: N/A

Work Task 43: Salton Sea Shoreline Strand Study

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$10,000	\$7,000	\$50,000	\$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 FY17: N/A

FY18 Activities: Shoreline strand imagery (pending).

Planned FY19 Activities: Shoreline strand surveys.

Work Task 44: Pupfish Refugium

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$30,600	\$20,000	\$32,960	\$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 FY17: Pupfish refugium built in 2010 and stocked in 2016.

FY18 Activities: Pupfish refugium operations and maintenance.

Planned FY19 Activities: Pupfish refugium operations and maintenance.

Work Task 45: Recreation Facilities at Salton Sea

BUDGETED FY 2019	PROJECTED FY 2018	BUDGETED FY 2018	SPENT THROUGH FY 2017
\$0	\$10,998	\$4,590	\$7,693

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 FY17: Inventory of recreational facilities around the Salton Sea.

FY18 Activities: Cleaning of the harbor at the Salton Sea.

Planned FY19 Activities: N/A