

**Appendix D**  
**Project and Activity Cost Summary**



**Summary of SJRRP Estimated Future Activities and Costs for FY 17 to FY 24**  
**Federal and State Funding Sources**  
All values in Thousands and in Various \$ (Assumes 2.89% Inflation Rate)

Activity/Project Title	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Estimated Cost (Various \$)
<b>Administration and Program Management</b>	<b>\$6,730</b>	<b>\$10,772</b>	<b>\$8,905</b>	<b>\$9,050</b>	<b>\$7,203</b>	<b>\$6,013</b>	<b>\$6,186</b>	<b>\$5,011</b>	<b>\$59,869</b>
Reclamation <sup>1</sup>	\$1,885	\$1,845	\$1,898	\$1,953	\$1,507	\$1,034	\$1,064	\$547	\$11,734
USFWS	\$1,751	\$1,714	\$1,764	\$1,815	\$1,400	\$960	\$988	\$508	\$10,901
NMFS	\$1,029	\$1,007	\$1,036	\$1,066	\$823	\$564	\$581	\$299	\$6,405
DWR	\$522	\$1,124	\$1,157	\$1,190	\$706	\$726	\$747	\$768	\$6,939
DFW	\$1,543	\$5,081	\$3,050	\$3,026	\$2,767	\$2,728	\$2,807	\$2,888	\$23,890
<b>Flow-Related Activities</b>	<b>\$7,302</b>	<b>\$7,221</b>	<b>\$17,744</b>	<b>\$24,196</b>	<b>\$14,894</b>	<b>\$20,435</b>	<b>\$16,408</b>	<b>\$1,403</b>	<b>\$109,604</b>
<b>Conservation Strategy and Flow-related Mitigation Measures</b>	<b>\$561</b>	<b>\$1,319</b>	<b>\$704</b>	<b>\$3,417</b>	<b>\$2,977</b>	<b>\$885</b>	<b>\$559</b>	<b>\$509</b>	<b>\$10,931</b>
Conservation Strategy	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Invasive Species Control	\$0	\$0	\$0	\$1,681	\$0	\$0	\$0	\$0	\$1,681
Vegetation Monitoring & Other	\$51	\$0	\$0	\$59	\$0	\$0	\$65	\$0	\$175
Reconsultation on Flows	\$0	\$0	\$0	\$0	\$1,828	\$0	\$0	\$0	\$1,828
Implement Conservation Strategy Actions for Flows	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Channel Capacity Advisory Group (Includes Erosion Monitor	\$509	\$535	\$441	\$1,126	\$583	\$599	\$495	\$509	\$4,797
Physical Monitoring and Management Plan Implementation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Steelhead Monitoring	\$0	\$255	\$263	\$270	\$278	\$286	\$0	\$0	\$1,352
Programmatic Cultural Resources Consultation	\$0	\$529	\$0	\$280	\$288	\$0	\$0	\$0	\$1,098
Millerton Lake Boat Ramps	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Traffic Detour Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sand Slough / Eastside Bypass Sand Removal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Flow Management and Monitoring</b>	<b>\$908</b>	<b>\$437</b>	<b>\$449</b>	<b>\$798</b>	<b>\$821</b>	<b>\$845</b>	<b>\$997</b>	<b>\$895</b>	<b>\$6,150</b>
Daily Flow Management and Monitoring	\$79	\$86	\$89	\$91	\$94	\$97	\$99	\$102	\$737
Stream Gaging	\$292	\$209	\$215	\$222	\$228	\$235	\$369	\$248	\$2,019
Unexpected Seepage Losses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Unreleased Restoration Flows	\$37	\$40	\$41	\$43	\$44	\$45	\$46	\$48	\$345
Restoration Flow Guidelines	\$33	\$34	\$35	\$36	\$37	\$38	\$39	\$40	\$289
Data Management	\$54	\$56	\$58	\$59	\$61	\$63	\$65	\$66	\$482
MAP Actions to Inform Flow Decisions	\$401	\$0	\$0	\$336	\$346	\$356	\$366	\$377	\$2,182
Water Right Annual Report	\$11	\$11	\$12	\$12	\$12	\$13	\$13	\$13	\$97
<b>Seepage Actions</b>	<b>\$4,290</b>	<b>\$3,454</b>	<b>\$5,046</b>	<b>\$17,068</b>	<b>\$8,789</b>	<b>\$18,705</b>	<b>\$14,851</b>	<b>\$0</b>	<b>\$72,204</b>
<b>Levee Stability Actions (not a SJRRP cost)</b>	<b>\$1,543</b>	<b>\$2,011</b>	<b>\$11,545</b>	<b>\$2,913</b>	<b>\$2,306</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$20,319</b>
<b>Restoration Goal Activities</b>	<b>\$25,774</b>	<b>\$40,455</b>	<b>\$26,777</b>	<b>\$192,019</b>	<b>\$56,905</b>	<b>\$39,007</b>	<b>\$20,307</b>	<b>\$31,262</b>	<b>\$432,506</b>
<b>Phase I Projects<sup>2</sup></b>	<b>\$23,413</b>	<b>\$17,431</b>	<b>\$18,275</b>	<b>\$187,213</b>	<b>\$53,914</b>	<b>\$36,648</b>	<b>\$16,054</b>	<b>\$26,887</b>	<b>\$379,834</b>
Mendota Pool Bypass, Fish Screen, and Reach 2B Levees	\$22,881	\$16,875	\$18,171	\$151,450	\$48,657	\$36,502	\$15,721	\$26,544	\$336,803
Reach 4B/ESB/MB Channel and Structural Improvements	\$522	\$73	\$54	\$0	\$0	\$119	\$305	\$314	\$1,387
Arroyo Canal Fish Screen and Sack Dam Fish Passage	\$10	\$483	\$50	\$35,762	\$5,256	\$27	\$28	\$29	\$41,645
Salt and Mud Slough Seasonal Barriers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Passage at Key Barriers to Migration</b>	<b>\$480</b>	<b>\$794</b>	<b>\$7,086</b>	<b>\$2,331</b>	<b>\$445</b>	<b>\$332</b>	<b>\$342</b>	<b>\$352</b>	<b>\$12,161</b>
<b>Phase II Projects</b>	<b>\$325</b>	<b>\$0</b>	<b>\$0</b>	<b>\$840</b>	<b>\$865</b>	<b>\$297</b>	<b>\$305</b>	<b>\$314</b>	<b>\$2,946</b>
Reach 4B/ESB High Flow Routing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Chowchilla Bifurcation Structure Fish Passage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Gravel Pit Filling and/or Isolation	\$325	\$0	\$0	\$840	\$865	\$297	\$305	\$314	\$2,946
<b>Fisheries Recolonization Activities</b>	<b>\$1,555</b>	<b>\$22,230</b>	<b>\$1,416</b>	<b>\$1,635</b>	<b>\$1,682</b>	<b>\$1,731</b>	<b>\$3,606</b>	<b>\$3,710</b>	<b>\$37,565</b>
Conservation Facility Construction (DFW cost)	\$0	\$20,854	\$0	\$0	\$0	\$0	\$0	\$0	\$20,854
Conservation Facility Water Supply Line (Reclamation cost)	\$617	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$617
Conservation Facility Operations and Maintenance	\$720	\$783	\$806	\$829	\$853	\$878	\$3,051	\$3,139	\$11,060
Donor Stock Collection	\$0	\$90	\$92	\$272	\$280	\$288	\$297	\$305	\$1,625
Trap and Haul (short-term and as needed)	\$0	\$280	\$288	\$296	\$305	\$314	\$0	\$0	\$1,482
Genetics Monitoring	\$218	\$224	\$230	\$237	\$244	\$251	\$258	\$266	\$1,927
Segregation Actions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Paragraph 12 Activities</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Water Management Goal Activities</b>	<b>\$1,275</b>	<b>\$8,430</b>	<b>\$6,266</b>	<b>\$17,596</b>	<b>\$1,316</b>	<b>\$1,354</b>	<b>\$1,393</b>	<b>\$1,434</b>	<b>\$39,066</b>
Water Management Goal Oversight <sup>3</sup>	\$1,235	\$1,209	\$1,244	\$1,279	\$1,316	\$1,354	\$1,393	\$1,434	\$10,464
Recapture and Recirculation Activities <sup>4</sup>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Friant-Kern and Madera Canal Capacity Restoration <sup>5</sup>	\$25	\$7,200	\$5,000	\$16,305	\$0	\$0	\$0	\$0	\$28,530
Reverse Flow Facilities <sup>6</sup>	\$5	\$11	\$12	\$12	\$0	\$0	\$0	\$0	\$40
Financial Assistance for Friant Division Improvements	\$10	\$11	\$11	\$0	\$0	\$0	\$0	\$0	\$32
<b>Miscellaneous and/or Opportunistic Actions</b>	<b>\$189</b>	<b>\$265</b>	<b>\$272</b>	<b>\$280</b>	<b>\$288</b>	<b>\$297</b>	<b>\$305</b>	<b>\$314</b>	<b>\$2,210</b>
<b>Total Estimated Federal Funding Need</b>	<b>\$41,270</b>	<b>\$67,143</b>	<b>\$59,964</b>	<b>\$243,142</b>	<b>\$80,606</b>	<b>\$67,106</b>	<b>\$44,599</b>	<b>\$39,424</b>	<b>\$643,255</b>

## Notes and Assumptions:

- Includes Program-wide activities including public outreach (annual report, Quarterly Updates, and similar) and data management.
- Costs for the Phase I Projects are based on design estimates. Actual costs for individual projects will vary as implementation progresses and projects progress through the design stages. Includes the following for each project: environmental compliance efforts; planning and design; public outreach; land acquisition; pre and during construction mitigation measures; construction; post-construction mitigation measures and performance monitoring, and long-term operations and maintenance, if applicable. Assumes costs are obligated in these years, actual construction may take longer. All construction costs are indexed to June 2017 dollars.
- Includes annual recapture and recirculation actions and managing Recovered Water Accounts.
- Moved into a future phase. Includes additional funding for expanded recapture opportunities.
- Assumes through completion of Madera Canal Capacity Correction Project environmental compliance. Moves implementation costs out to a future phase.
- Reverse flow facilities are not included as part of the Core Program in the June 2012 Framework for Implementation. These costs are for managing the Secure Water Act - Drought Relief funded project.

**Summary of SJRRP Estimated Future Federal Activities and Costs for FY 17 to FY 24**  
**All values in Thousands and in Various \$ (Assumes 2.89% Inflation Rate)**

Activity/Project Title	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Total Estimated Cost (Various \$)
<b>Administration and Program Management</b>	<b>\$4,665</b>	<b>\$4,567</b>	<b>\$4,699</b>	<b>\$4,834</b>	<b>\$3,730</b>	<b>\$2,559</b>	<b>\$2,633</b>	<b>\$1,354</b>	<b>\$29,040</b>
Reclamation <sup>1</sup>	\$1,885	\$1,845	\$1,898	\$1,953	\$1,507	\$1,034	\$1,064	\$547	\$11,734
USFWS	\$1,751	\$1,714	\$1,764	\$1,815	\$1,400	\$960	\$988	\$508	\$10,901
NMFS	\$1,029	\$1,007	\$1,036	\$1,066	\$823	\$564	\$581	\$299	\$6,405
DWR	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
DFW	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Flow-Related Activities</b>	<b>\$4,786</b>	<b>\$4,604</b>	<b>\$5,685</b>	<b>\$19,746</b>	<b>\$11,582</b>	<b>\$19,401</b>	<b>\$15,465</b>	<b>\$434</b>	<b>\$81,704</b>
<b>Conservation Strategy and Flow-related Mitigation Measures</b>	<b>\$57</b>	<b>\$790</b>	<b>\$268</b>	<b>\$2,296</b>	<b>\$2,401</b>	<b>\$292</b>	<b>\$71</b>	<b>\$7</b>	<b>\$6,181</b>
Conservation Strategy									
Invasive Species Control	\$0	\$0	\$0	\$1,681	\$0	\$0	\$0	\$0	\$1,681
Vegetation Monitoring & Other	\$51	\$0	\$0	\$59	\$0	\$0	\$65	\$0	\$175
Reconsultation on Flows	\$0	\$0	\$0	\$0	\$1,828	\$0	\$0	\$0	\$1,828
Implement Conservation Strategy Actions for Flows	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Channel Capacity Advisory Group (Includes Erosion Monitoring)	\$5	\$6	\$6	\$6	\$6	\$6	\$6	\$7	\$48
Physical Monitoring and Management Plan Implementation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Steelhead Monitoring	\$0	\$255	\$263	\$270	\$278	\$286	\$0	\$0	\$1,352
Programmatic Cultural Resources Consultation	\$0	\$529	\$0	\$280	\$288	\$0	\$0	\$0	\$1,098
Millerton Lake Boat Ramps	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Traffic Detour Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sand Slough / Eastside Bypass Sand Removal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Flow Management and Monitoring</b>	<b>\$439</b>	<b>\$360</b>	<b>\$371</b>	<b>\$381</b>	<b>\$392</b>	<b>\$404</b>	<b>\$543</b>	<b>\$427</b>	<b>\$3,318</b>
Daily Flow Management and Monitoring	\$79	\$86	\$89	\$91	\$94	\$97	\$99	\$102	\$737
Stream Gaging	\$224	\$133	\$137	\$141	\$145	\$149	\$281	\$158	\$1,369
Unexpected Seepage Losses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Unreleased Restoration Flows	\$37	\$40	\$41	\$43	\$44	\$45	\$46	\$48	\$345
Restoration Flow Guidelines	\$33	\$34	\$35	\$36	\$37	\$38	\$39	\$40	\$289
Data Management	\$54	\$56	\$58	\$59	\$61	\$63	\$65	\$66	\$482
MAP Actions to Inform Flow Decisions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Right Annual Report	\$11	\$11	\$12	\$12	\$12	\$13	\$13	\$13	\$97
<b>Seepage Actions</b>	<b>\$4,290</b>	<b>\$3,454</b>	<b>\$5,046</b>	<b>\$17,068</b>	<b>\$8,789</b>	<b>\$18,705</b>	<b>\$14,851</b>	<b>\$0</b>	<b>\$72,204</b>
<b>Levee Stability Actions (not a SJRRP cost)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Restoration Goal Activities</b>	<b>\$24,734</b>	<b>\$18,749</b>	<b>\$19,747</b>	<b>\$190,495</b>	<b>\$55,706</b>	<b>\$38,248</b>	<b>\$16,292</b>	<b>\$27,131</b>	<b>\$391,102</b>
<b>Phase I Projects<sup>2</sup></b>	<b>\$23,148</b>	<b>\$17,373</b>	<b>\$18,215</b>	<b>\$187,202</b>	<b>\$53,902</b>	<b>\$36,518</b>	<b>\$15,737</b>	<b>\$26,560</b>	<b>\$378,655</b>
Mendota Pool Bypass, Fish Screen, and Reach 2B Levees <sup>3</sup>	\$22,881	\$16,870	\$18,166	\$151,439	\$48,646	\$36,490	\$15,709	\$26,532	\$336,733
Reach 4B/ESB/MB Channel and Structural Improvements	\$257	\$20	\$0	\$0	\$0	\$0	\$0	\$0	\$277
Arroyo Canal Fish Screen and Sack Dam Fish Passage	\$10	\$483	\$50	\$35,762	\$5,256	\$27	\$28	\$29	\$41,645
Salt and Mud Slough Seasonal Barriers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Passage at Key Barriers to Migration</b>	<b>\$31</b>	<b>\$0</b>	<b>\$115</b>	<b>\$1,659</b>	<b>\$122</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,926</b>
<b>Phase II Projects</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Reach 4B/ESB High Flow Routing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Chowchilla Bifurcation Structure Fish Passage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Gravel Pit Filing and/or Isolation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Fisheries Recolonization Activities</b>	<b>\$1,555</b>	<b>\$1,377</b>	<b>\$1,416</b>	<b>\$1,635</b>	<b>\$1,682</b>	<b>\$1,731</b>	<b>\$555</b>	<b>\$571</b>	<b>\$10,521</b>
Conservation Facility Construction (DFW cost)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Conservation Facility Water Supply Line (Reclamation cost)	\$617	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$617
Conservation Facility Operations and Maintenance	\$720	\$783	\$806	\$829	\$853	\$878	\$0	\$0	\$4,870
Donor Stock Collection	\$0	\$90	\$92	\$272	\$280	\$288	\$297	\$305	\$1,625
Trap and Haul (short-term and as needed)	\$0	\$280	\$288	\$296	\$305	\$314	\$0	\$0	\$1,482
Genetics Monitoring	\$218	\$224	\$230	\$237	\$244	\$251	\$258	\$266	\$1,927
Segregation Actions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Paragraph 12 Activities</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Water Management Goal Activities</b>	<b>\$1,275</b>	<b>\$8,430</b>	<b>\$6,266</b>	<b>\$17,596</b>	<b>\$1,316</b>	<b>\$1,354</b>	<b>\$1,393</b>	<b>\$1,434</b>	<b>\$39,066</b>
Water Management Goal Oversight <sup>3</sup>	\$1,235	\$1,209	\$1,244	\$1,279	\$1,316	\$1,354	\$1,393	\$1,434	\$10,464
Recapture and Recirculation Activities <sup>4</sup>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Friant-Kern and Madera Canal Capacity Restoration <sup>5</sup>	\$25	\$7,200	\$5,000	\$16,305	\$0	\$0	\$0	\$0	\$28,530
Reverse Flow Facilities <sup>6</sup>	\$5	\$11	\$12	\$12	\$0	\$0	\$0	\$0	\$40
Financial Assistance for Friant Division Improvements	\$10	\$11	\$11	\$0	\$0	\$0	\$0	\$0	\$32
<b>Miscellaneous and/or Opportunistic Actions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Estimated Federal Funding Need</b>	<b>\$35,460</b>	<b>\$36,350</b>	<b>\$36,396</b>	<b>\$232,671</b>	<b>\$72,335</b>	<b>\$61,562</b>	<b>\$35,783</b>	<b>\$30,353</b>	<b>\$540,912</b>

## Notes and Assumptions:

- Includes Program-wide activities including public outreach (annual report, Quarterly Updates, and similar) and data management.
- Costs for the Phase I Projects are based on design estimates. Actual costs for individual projects will vary as implementation progresses and projects progress through the design stages. Includes the following for each project: environmental compliance efforts; planning and design; public outreach; land acquisition; pre and during construction mitigation measures; construction; post-construction mitigation measures and performance monitoring, and long-term operations and maintenance, if applicable. Assumes costs are obligated in these years, actual construction may take longer. All construction costs are indexed to June 2017 dollars.
- Includes annual recapture and recirculation actions and managing Recovered Water Accounts.
- Moved into a future phase. Includes additional funding for expanded recapture opportunities.
- Assumes through completion of Madera Canal Capacity Correction Project environmental compliance. Moves implementation costs out to a future phase.
- Reverse flow facilities are not included as part of the Core Program in the June 2012 Framework for Implementation. These costs are for managing the Secure Water Act - Drought Relief funded project.

**Summary of SJRRP Estimated Future State Activities and Costs for FY 17 to FY 24**  
**All values in Thousands and in Various \$ (Assumes 2.89% Inflation Rate)**

Activity/Project Title	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Total Estimated Cost (Various \$)
<b>Administration and Program Management</b>	<b>\$2,065</b>	<b>\$6,205</b>	<b>\$4,206</b>	<b>\$4,216</b>	<b>\$3,473</b>	<b>\$3,454</b>	<b>\$3,554</b>	<b>\$3,656</b>	<b>\$30,829</b>
Reclamation <sup>1</sup>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
USFWS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NMFS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
DWR	\$522	\$1,124	\$1,157	\$1,190	\$706	\$726	\$747	\$768	\$6,939
DFW	\$1,543	\$5,081	\$3,050	\$3,026	\$2,767	\$2,728	\$2,807	\$2,888	\$23,890
<b>Flow-Related Activities</b>	<b>\$2,517</b>	<b>\$2,617</b>	<b>\$12,059</b>	<b>\$4,451</b>	<b>\$3,311</b>	<b>\$1,034</b>	<b>\$942</b>	<b>\$969</b>	<b>\$27,900</b>
<b>Conservation Strategy and Flow-related Mitigation Measures</b>	<b>\$504</b>	<b>\$529</b>	<b>\$436</b>	<b>\$1,121</b>	<b>\$576</b>	<b>\$593</b>	<b>\$488</b>	<b>\$502</b>	<b>\$4,750</b>
Conservation Strategy	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Invasive Species Control	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Vegetation Monitoring & Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reconsultation on Flows	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Implement Conservation Strategy Actions for Flows	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Channel Capacity Advisory Group (Includes Erosion Monitoring)	\$504	\$529	\$436	\$1,121	\$576	\$593	\$488	\$502	\$4,750
Physical Monitoring and Management Plan Implementation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Steelhead Monitoring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Programmatic Cultural Resources Consultation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Millerton Lake Boat Ramps	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Traffic Detour Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sand Slough / Eastside Bypass Sand Removal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Flow Management and Monitoring</b>	<b>\$469</b>	<b>\$76</b>	<b>\$78</b>	<b>\$417</b>	<b>\$429</b>	<b>\$441</b>	<b>\$454</b>	<b>\$467</b>	<b>\$2,832</b>
Daily Flow Management and Monitoring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Stream Gaging	\$68	\$76	\$78	\$81	\$83	\$85	\$88	\$90	\$650
Unexpected Seepage Losses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Unreleased Restoration Flows	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Restoration Flow Guidelines	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Data Management	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MAP Actions to Inform Flow Decisions	\$401	\$0	\$0	\$336	\$346	\$356	\$366	\$377	\$2,182
Water Right Annual Report	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Seepage Actions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Levee Stability Actions (not a SJRRP cost)</b>	<b>\$1,543</b>	<b>\$2,011</b>	<b>\$11,545</b>	<b>\$2,913</b>	<b>\$2,306</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$20,319</b>
<b>Restoration Goal Activities</b>	<b>\$1,039</b>	<b>\$21,706</b>	<b>\$7,030</b>	<b>\$1,524</b>	<b>\$1,199</b>	<b>\$759</b>	<b>\$4,015</b>	<b>\$4,131</b>	<b>\$41,404</b>
<b>Phase I Projects<sup>2</sup></b>	<b>\$264</b>	<b>\$58</b>	<b>\$60</b>	<b>\$11</b>	<b>\$12</b>	<b>\$130</b>	<b>\$317</b>	<b>\$326</b>	<b>\$1,180</b>
Mendota Pool Bypass, Fish Screen, and Reach 2B Levees	\$0	\$5	\$5	\$11	\$12	\$12	\$12	\$13	\$70
Reach 4B/ESB/MB Channel and Structural Improvements	\$264	\$53	\$54	\$0	\$0	\$119	\$305	\$314	\$1,109
Arroyo Canal Fish Screen and Sack Dam Fish Passage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Salt and Mud Slough Seasonal Barriers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Passage at Key Barriers to Migration</b>	<b>\$450</b>	<b>\$794</b>	<b>\$6,970</b>	<b>\$672</b>	<b>\$323</b>	<b>\$332</b>	<b>\$342</b>	<b>\$352</b>	<b>\$10,234</b>
<b>Phase II Projects</b>	<b>\$325</b>	<b>\$0</b>	<b>\$0</b>	<b>\$840</b>	<b>\$865</b>	<b>\$297</b>	<b>\$305</b>	<b>\$314</b>	<b>\$2,946</b>
Reach 4B/ESB High Flow Routing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Chowchilla Bifurcation Structure Fish Passage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Gravel Pit Filling and/or Isolation	\$325	\$0	\$0	\$840	\$865	\$297	\$305	\$314	\$2,946
<b>Fisheries Recolonization Activities</b>	<b>\$0</b>	<b>\$20,854</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,051</b>	<b>\$3,139</b>	<b>\$27,044</b>
Conservation Facility Construction (DFW cost)	\$0	\$20,854	\$0	\$0	\$0	\$0	\$0	\$0	\$20,854
Conservation Facility Water Supply Line (Reclamation cost)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Conservation Facility Operations and Maintenance	\$0	\$0	\$0	\$0	\$0	\$0	\$3,051	\$3,139	\$6,190
Donor Stock Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Trap and Haul (short-term and as needed)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Genetics Monitoring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Segregation Actions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Paragraph 12 Activities</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Water Management Goal Activities</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Water Management Goal Oversight <sup>3</sup>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Recapture and Recirculation Activities <sup>4</sup>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Friant-Kern and Madera Canal Capacity Restoration <sup>5</sup>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reverse Flow Facilities <sup>6</sup>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Financial Assistance for Friant Division Improvements	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Miscellaneous and/or Opportunistic Actions</b>	<b>\$189</b>	<b>\$265</b>	<b>\$272</b>	<b>\$280</b>	<b>\$288</b>	<b>\$297</b>	<b>\$305</b>	<b>\$314</b>	<b>\$2,210</b>
<b>Total Estimated Federal Funding Need</b>	<b>\$5,810</b>	<b>\$30,793</b>	<b>\$23,567</b>	<b>\$10,471</b>	<b>\$8,271</b>	<b>\$5,544</b>	<b>\$8,816</b>	<b>\$9,071</b>	<b>\$102,343</b>

## Notes and Assumptions:

- Includes Program-wide activities including public outreach (annual report, Quarterly Updates, and similar) and data management.
- Costs for the Phase I Projects are based on design estimates. Actual costs for individual projects will vary as implementation progresses and projects progress through the design stages. Includes the following for each project: environmental compliance efforts; planning and design; public outreach; land acquisition; pre and during construction mitigation measures; construction; post-construction mitigation measures and performance monitoring, and long-term operations and maintenance, if applicable. Assumes costs are obligated in these years, actual construction may take longer. All construction costs are indexed to June 2017 dollars.
- Includes annual recapture and recirculation actions and managing Recovered Water Accounts.
- Moved into a future phase. Includes additional funding for expanded recapture opportunities.
- Assumes through completion of Madera Canal Capacity Correction Project environmental compliance. Moves implementation costs out to a future phase.
- Reverse flow facilities are not included as part of the Core Program in the June 2012 Framework for Implementation. These costs are for managing the Secure Water Act - Drought Relief funded project.