

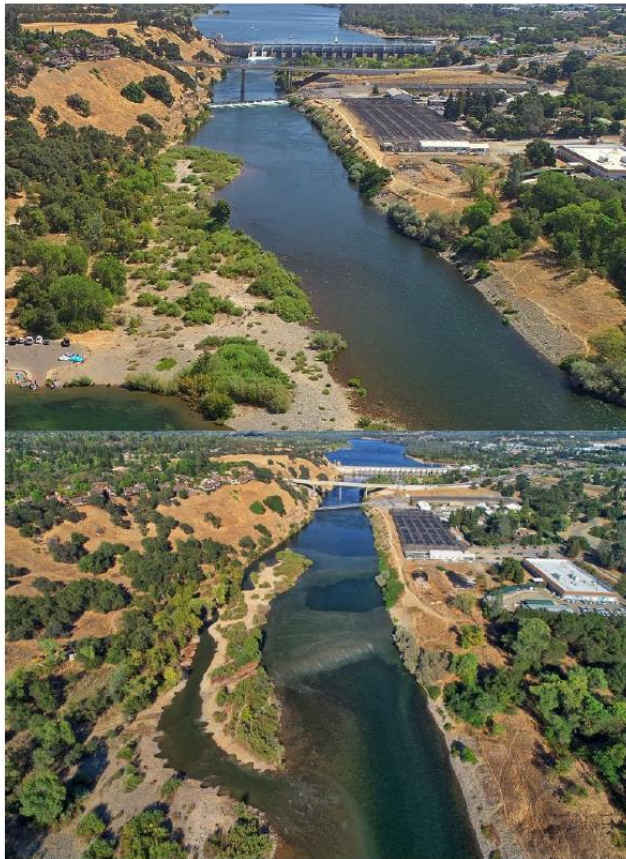


— BUREAU OF —
RECLAMATION

Public Draft Workplan

Fiscal Year 2020 Obligation Plan for CVPIA Authorities

**Central Valley Project, California
Interior Region 10 – California-Great Basin**



Mission Statements

The Department of the Interior (DOI) conserves and manages the Nation's natural resources and cultural heritage for the benefit and enjoyment of the American people, provides scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Public Draft Workplan

Fiscal Year 2020 Obligation Plan for CVPIA Authorities

**Central Valley Project, California
Interior Region 10 – California-Great Basin**

**California-Great Basin Regional Office, Resources Management Division and
Bay-Delta Office**

Cover Photo: 2019 spawning gravel and juvenile rearing habitat restoration on the American River at Sailor Bar in partnership with the Sacramento Water Forum (with special thanks to Sacramento County Parks, California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and the Sacramento Area Flood Control Agency). Showing before construction (top left); after construction (bottom left); and use by fall-run Chinook salmon (right). The light ovals in the gravel are nests, called redds, created by adult females for her eggs. (Reclamation/John Hannon)

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Introduction

The Central Valley Project (CVP) of the Bureau of Reclamation (Reclamation) manages nearly 12 million acre-feet of water in California's Central Valley and San Francisco Bay - Sacramento/San Joaquin Delta (Bay-Delta). The goal of the CVP is to provide and enhance water and hydropower reliability for California communities, agriculture, fisheries, and wildlife refuges, in accordance with statutory responsibilities. Reclamation serves these water supply needs in part through balancing of competing and complementary requirements for fish and wildlife project purposes. This workplan describes Reclamation's fiscal year 2020 planned obligations using the Section 3406 fish, wildlife and habitat authorities under the Central Valley Project Improvement Act (CVPIA), Title 34 of Public Law 102-575. This workplan builds upon and expands prior CVPIA workplans to cover activities using CVPIA authorities from both CVPIA and other appropriations. Through this workplan Reclamation identifies potential financial obligations to CVP water users and power customers and seeks feedback on program implementation from stakeholders and the public.

The ability to obligate funds consistent with this workplan will depend upon collections and the execution of contracts and agreements. Once obligated, funds become available for expenditure, which may span multiple years. CVP water users and power customers incur a reimbursable obligation only after Reclamation is invoiced and an expenditure recorded. Funds no longer required under contracts and agreements may be de-obligated and re-obligated on a similar or different authorized activity. Scopes of work, budgets, timelines, and priorities may change in the course of implementing programs. Reclamation will endeavor to identify and communicate such changes as appropriate. A subsequent report to Congress and "Accomplishment Report" will describe the results from expenditures on this workplan and previous workplans. The CVPIA public website provides background information on the CVPIA and access to prior workplans and accomplishment reports at: <https://www.usbr.gov/mp/cvpia>.

Background

The 1992 passage of the CVPIA, in part, amended previous authorizations of the CVP to include fish and wildlife protection, restoration, and mitigation as project purposes having equal priority with irrigation and domestic uses, and fish and wildlife enhancement as a project purpose equal to power generation. Section 3406 of the CVPIA authorized water operations, programs, and projects to support fish and wildlife. Section 3407 established the Central Valley Project Restoration Fund (Restoration Fund) for donations from any source and revenues provided through payments by CVP water and power customers for carrying out the fish and wildlife provisions of Title 34. Reclamation and the U.S. Fish and Wildlife Service (Service) jointly implement the CVPIA programs using the Restoration Fund. Reclamation and the Service coordinate CVPIA programs with the National Marine Fisheries Service (NMFS) and the State of California represented by the Department of Fish and Wildlife (CDFW) and Department of Water Resources (DWR).

Subsequent legislation and regulations continued to amend or augment authorizations of the CVP and relied upon many of the authorities added from the CVPIA, most notably on measures to address fish species. Examples include compliance with the Endangered Species Act (ESA) for the

operation of the CVP, compliance with the State of California Water Quality Control Plan for the Bay Delta (State Water Resources Control Board Decision 1641, “D-1641”), the CalFed Bay-Delta Authorization Act (CalFed), Title 1 of Public Law 108-361, and the Water Infrastructure Improvements for the Nation (WIIN) Act, Subtitle J of Public Law 114-322, among others. Reclamation operates the CVP under Biological Opinions issued by the Service and NMFS and in coordination with DWR’s operation of the State Water Project (SWP) under the federal Biological Opinions and an Incidental Take Permit from CDFW.

Section 3406 of the CVPIA authorizes programs and activities to support fish and wildlife. These authorities generally fall into the following areas:

- Fish Resource Area - Activities under section 3406(b) and (g) of the Act to improve the natural production of anadromous fish, address other adverse environmental impacts of the Central Valley Project, mitigate for fishery impacts associated with operations of the Tracy Pumping Plant, assist efforts to protect the waters of the Bay-Delta Estuary, and to help meet obligations under the Federal Endangered Species Act;
- Refuge Water Supply Program - Activities under section 3406(d) of the Act to provide firm water supplies of suitable quality to maintain and improve wetland habitat areas on units of the National Wildlife Refuge System in the Central Valley of California; on the Gray Lodge, Los Banos, Volta, North Grasslands, and Mendota state wildlife management areas; and on the Grasslands Resources Conservation District in the Central Valley of California; and
- Independent Programs -
 - Habitat Restoration Program (HRP) - Activities authorized under section 3406(b)(1) to mitigate the other adverse environmental impacts of the CVP on ESA-listed species other than anadromous fish,
 - San Joaquin River Restoration Program (SJRRP) - Use of the Restoration Fund authorized by Section 10009(b)(2) of Public Law 111-11 for activities to implement the Stipulation of Settlement for NRDC, et al. v. Rodgers, et al., (2006) and
 - Trinity River Restoration Program (TRRP) - Activities to implement the Trinity River flows under Section 3406(b)(23) and to complete the channel restoration actions under the other adverse environmental impacts of the CVP under 3406(b)(1).

Subsequent sections of this workplan summarize the activities in each of the aforementioned areas. Attachment 1 lists the activities. Attachment 2 (separate document upon request) summarizes the individual project charters for the Restoration fund with specific details on the use of the Restoration Fund and future funding needs.

Fish Resource Area

The Service listed Delta Smelt as threatened in 1993. NMFS listed winter-run Chinook salmon as threatened in 1989 and then updated to endangered in 1994; listed spring-run Chinook salmon as threatened in 1999; listed California Central Valley steelhead as threatened in 1998; and listed the southern Distinct Population Segment of Green Sturgeon as threatened in 2006. In 1999, the California State Water Resources Control Board issued D-1641 to adopt the 1995 Bay-Delta Plan, which imposed new obligations on both the CVP and SWP to protect water quality for beneficial

uses, including fish and wildlife. Biological Opinions, beginning most significantly in 2009, set specific requirements for meeting the needs of listed salmon, steelhead, and sturgeon with a combination of restrictions on operations and mitigation requirements. In 2014, NMFS released a Recovery Plan for Central Valley salmon and steelhead that sets goals and prioritizes actions based on updated science.

In 2001, the Service refined actions from 1995 Working Papers¹ to release the Final Plan for the Anadromous Fish Restoration Program.² In 2015, the CVPIA established the SIT³ to support formal Structured Decision Making (SDM) as an updated science-based framework to inform the use of the Restoration Fund on projects to improve anadromous fish. The SIT is a self-selected technical group made up of agency staff and stakeholders that follows the SDM process. The SIT works with local watershed groups and other local partners to advance the science for on-the-ground habitat and facility improvements in all Central Valley watersheds.

The 2019 Proposed Action and Biological Opinions and the 2020 Long-Term Operations (LTO) Record of Decision (collectively, “LTO”)⁴ established a road map for operating the CVP for all statutory requirements, with a combination of flow, habitat, facility, hatchery, and science actions for meeting the needs of listed species. The adaptive elements for habitat and facility improvements under the LTO rely upon the CVPIA Program and SIT efforts. While not all of the actions under the LTO rely upon CVPIA authorities and not all of the CVPIA activities fall within the LTO, the integration approach provides a framework for understanding the scope of Reclamation’s fisheries-related programs. This framework includes:

- Real-Time Operations – Data and analysis for decision-making on the day-to-day and seasonal operation of the CVP (e.g., Red Bluff Rotary Screw Trap, Enhanced Delta Smelt Monitoring “EDSM” Trawls);
- Status and Trend Monitoring - Monitoring and analysis for assessing long-term changes in fish populations and the associated environmental and biological conditions (e.g., Bay Surveys and certain Delta trawls);
- Habitat and Facility Improvements - Improvements to the physical environment to support fish populations and reduce the adverse effects of infrastructure (e.g., gravel augmentation, rearing habitat, fish screens, Delta Cross Channel Gate retrofit);
- Intervention – Protections for species when hydrologic and environmental conditions cannot support the year classes through volitional movement and natural production,

¹ U.S. Fish and Wildlife Service with assistance from the Anadromous Fish Restoration Program Core Group. 1995. Working Paper on Restoration Needs--Habitat Restoration Actions to Double Natural Production of Anadromous Fish in the Central Valley of California, Volume 3. https://www.fws.gov/lodi/anadromous_fish_restoration/documents/WorkingPaper_v3.pdf

² U.S. Fish and Wildlife Service with assistance from the Anadromous Fish Restoration Program Core Group under authority of the Central Valley Project Improvement Act. 2001. Final Restoration Plan For The Anadromous Fish Restoration Program, A plan To Increase Natural Production Of Anadromous Fish In The Central Valley Of California. https://www.fws.gov/lodi/anadromous_fish_restoration/documents/20010109%20Final%20Restoration%20Plan%20for%20the%20AFRP.pdf

³ U.S. Bureau of Reclamation and U.S. Fish and Wildlife Service. 2019. Science Integration Team and Science Coordinator. 2019 Priorities Technical Memorandum for FY2020. <https://drive.google.com/file/d/1Ec3qn0Wk-PiygfZm-ZsdnYOUhdRI2sPd/view>

⁴ U.S. Bureau of Reclamation. 2019. Reinitiation of Consultation on the Coordinated Long-Term Operation of the Central Valley Project and State Water Project. Draft Environmental Impact Statement. https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=41664

primarily drought and dry conditions (e.g., refugial and supplementation hatchery programs, trap and haul); and

- Special Studies - Actions to reduce uncertainty and improve the performance of real-time operations, status and trend monitoring, habitat and facility improvements, and intervention actions (e.g., Directed Outflow Project, Steelhead Juvenile Production Estimate).

In executing the appropriations provided by Congress for fisheries, Reclamation considered needs for operation of the CVP and Service programs; science-based information from the SIT, biological opinions, and recovery plans; and efficiency and effectiveness measures such as cost-share, local support, prior performance, and competition. Table 1 summarizes fisheries implementation expenditures using CVPIA authorities. Table 2 shows program management and administration costs.

Table 1. Fisheries Implementation Expenditures Using CVPIA Authorities

Categories	LTO-ESA	Non-Project	Total
Real-Time Operations	\$11,998,406		\$11,998,406
Status and Trend	\$20,645,047	\$2,514,323	\$23,159,370
Habitat and Facility	\$35,029,204	\$1,590,000	\$36,619,204
Intervention	\$4,154,039		\$4,154,039
Special Study	\$8,926,562	\$415,425	\$9,341,987
Totals	\$80,753,258	\$4,519,748	\$85,273,006

Table 2. Fish Resource Area Program Management and Administration

Office	Reclamation FTE	Reclamation Cost	Service FTE	Service Cost	Total FTE	Total Cost
Regional	3.05	\$352,500	2.95	\$393,286	6	\$745,786
Lodi			7.33	\$1,015,478	7.33	\$1,015,478
Red Bluff			6.49	\$663,311	6.49	\$663,311
Bay-Delta	11.12	\$2,248,328	2	\$291,254	13.12	\$2,539,582
Other				\$467,376		\$467,376
Overhead	0	\$164,054	0	\$874,688	0	\$1,038,742
Total	14.17	\$2,764,882	18.77	\$3,705,393	32.94	\$6,470,275

Refuge Water Supply Program

The Refuge Water Supply Program (RWSP) includes all provisions under section 3406(d) of the CVPIA to provide firm water supplies of suitable quality to maintain and improve wetland habitat areas on units of the National Wildlife Refuge System in the Central Valley of California; on the Gray Lodge, Los Banos, Volta, North Grasslands, and Mendota state wildlife management areas; and on the Grassland Resources Conservation District in the Central Valley of California.

The Act specifies two water delivery responsibilities. Section 3406(d)(1) “Level 2” provides that the quantity and delivery schedules of water measured at the boundaries of each wetland habitat area shall be in accordance with Level 2 of the ‘Dependable Water Supply Needs’ table for those habitat areas set forth in the Refuge Water Supply Report⁵ and two-thirds of the water supply needed for full habitat development for those habitat areas identified in the San Joaquin Basin Action Plan/Kesterson Mitigation Action Plan Report⁶. Section 3406(d)(2) “Incremental Level 4” provides that the quantity and delivery schedules of water measured at the boundaries of each wetland habitat area shall be in accordance with Level 4 of the ‘Dependable Water Supply Needs’ table for those habitat areas set forth in the Refuge Water Supply Report and the full water supply needed for full habitat development for those habitat areas identified in the San Joaquin Basin Action Plan/Kesterson Mitigation Action Plan Report, to be acquired through voluntary measures. A full Level 4 water supply (Level 2 plus Incremental Level 4) provides for optimum habitat management to support the enhancement of a broad range of species including targeted threatened and endangered species. Components of the RWSP include:

- Water Acquisition: purchase, exchange, and transfer for Incremental Level 4 water supplies;
- Conveyance: groundwater pumping and the conveying (wheeling) of surface sources for Level 2 and Incremental Level 4 water supplies; and
- Facility Construction and Acquisition: infrastructure improvements to enable the delivery of full Level 4 water supplies.

Priorities have been discussed throughout the year through an Inter-Agency Refuge Water Management Team (IRWMT). Reclamation and the Service hosted specific workshops with invitations to the IRWMT to discuss potential 2020 funding. Based on feedback, the RWSP funding prioritized Charters based on:

1. Program Administration;
2. Level 2 Water Conveyance;
3. Incremental Level 4 Water Acquisitions;
4. Facility Construction Projects; and
5. Unfunded needs.

⁵ U.S. Bureau of Reclamation. 1989. Report on Refuge Water Supply Investigations. Central Valley Hydrological Basin, California. United States Department of the Interior, Bureau of Reclamation, Mid-Pacific Region, Sacramento, CA.

⁶ U.S. Bureau of Reclamation, U.S Fish and Wildlife Service, State of California, Department of Fish and Game. 1989. San Joaquin Basin Action Plan/Kesterson Mitigation Plan. <https://nrm.dfg.ca.gov/filehandler.ashx?documentid=133541>

Table 3. Refuge Water Supply Implementation: Summarizes the implementation of proposed 2020 projects

Program Components and Charters	Restoration Fund	Supplemental Funds	State	Total
Level 2 Water Supply				
Level 2 Refuge Water Conveyance	\$14,821,575		\$170,000	\$14,991,575
Subtotal	\$14,821,575		\$170,000	\$14,991,575
Incremental Level 4				
Inc. Level 4 Water Purchases and L2 Exchanges	\$8,572,000	\$1,000,000		\$8,572,000
Inc. Level 4 Refuge Water Conveyance	\$1,177,880	\$532,000		\$1,177,880
Subtotal	\$9,749,880			\$9,749,880
Refuge Construction				
Biggs-West Gridley/Gray Lodge WA Project	\$945,490			\$945,490
East Bear Creek Pump Station Modifications Project	\$1,200,000			\$1,200,000
Sutter NWR Lift Station Project	\$519,565			\$519,565
Subtotal	\$2,665,055			\$2,665,055
Grand Total	\$27,236,510		\$170,000	\$27,406,510

Table 4. Refuge Water Supply Program Management: Summarizes Program Management and costs associated with administering the Refuge Water Supply Program

Office Locations	Reclamation FTE	Reclamation Cost	Service FTE	Service Cost	Total FTE	Total Cost
Regional	3.85	\$437,500	2.28	\$298,836	6.13	\$736,336
Other				\$56,112		
Overhead		\$205,068		\$109,680		
Total	3.85	\$642,568	2.28	\$464,628	6.13	\$1,107,196

Table 5 Refuge Water Supply Unfunded Needs: Identifies unfunded needs within the FY2020, does not include long term Program needs or associated funding.

Charter	Total
Refuge Construction – Pixley Feasibility Study	\$450,000

Independent Programs

Independent programs are not integrated with other provisions of the CVPIA. These programs generally have separate oversight and resources in addition to the Restoration Fund, and program-specific reporting and stakeholder coordination requirements.

Habitat Restoration Program

Reclamation and the Service manage the Habitat Restoration Program (HRP) jointly with the Central Valley Project Conservation Program (CVPCP) with the overall objective of improving conditions for impacted species and habitats, excluding fish. The CVPCP and HRP utilize a proposal solicitation process to fund and carry out conservation actions within the areas served by the Central Valley Project. At the beginning of each annual funding cycle, a Funding Opportunity Announcement (FOA) is posted on www.grants.gov with a solicitation period of approximately 120 days. Table 6 shows the funding for the HRP Charter. Table 7 indicates the program management and administration funding for HRP. Historical projects and reports and contact information for more information are available at: <http://www.usbr.gov/mp/cvpcp>.

Table 6 - Habitat Restoration Program Charters

Program Area	Restoration Fund	Total
HRP Protection and Habitat Restoration Projects	\$1,117,437	\$1,117,437
Total	\$1,117,437	\$1,117,437

Table 7. Habitat Restoration Program Management

Office Locations	Reclamation FTE	Reclamation Cost	Service FTE	Service Cost	Total FTE	Total Cost
Regional	1	\$82,000	0.93	\$108,691	1.93	\$190,691
Other	0		0	\$20,410	0	\$20,410
Overhead	0	41,014	0	39,382	0	80,906
Total	1	123,014	0.93	168,993	1.93	292,007

San Joaquin River Restoration Program

The San Joaquin River Restoration Settlement Act (Title X, Subtitle A, Part I of Public Law 111-11), authorizes and directs implementation of the settlement in NRDC, et al., v. Rodgers, et al. Section 10007 of the Settlement Act finds and declares that the settlement satisfies and discharges all of the obligations of the Secretary contained in Section 3406(c)(1) of the CVPIA. Section 10009(b)(2) authorizes the use of the CVP Restoration Fund in an amount not to exceed \$2,000,000 (October 2006 price levels) in any fiscal year. CVPIA funded activities for the SJRRP Charter is reflected in Table 8.

Table 8 – San Joaquin River Restoration Program

Charter	Restoration Funds
SJRRP - Mendota Pool Bypass and Reach 2B Project	\$2,000,000
Total	\$2,000,000

*The SJRRP utilizes specific funding appropriated to the Program outside of the Restoration Fund. Those activities are not identified within this Work Plan.

Trinity River Restoration Program

The Trinity River Restoration Program (TRRP) was founded in 2000 based on three comprehensive foundational documents: the *Trinity River Flow Evaluation Final Report*⁷; the *Trinity River Environmental Impact Statement*⁸; and the *Trinity River Mainstem Fishery Restoration Record of Decision*⁹. These documents established a comprehensive science-based adaptive management program to restore the Trinity River’s fishery resources. The Program’s overarching goal is to restore anadromous fish populations to pre-dam levels. Activities that contribute to that end include mechanical channel rehabilitation, sediment management, instream flow releases, and watershed restoration. Table 9 shows the TRRP Charter.

Table 9 – Trinity River Restoration Program

Charter	Restoration Funds	Other Appropriations	Total
CVP Restoration Fund TRRP Channel Restoration Projects	\$1,500,000		\$1,500,000
WRR Funding of TRRP Record of Decision Restoration Activities		\$9,991,221	\$9,991,221
Total	\$1,500,000	\$9,991,221	\$11,491,221

⁷ U.S. Fish and Wildlife Service. Arcata Fish and Wildlife Office, Hoopa Valley Tribe. (1999). Trinity River flow evaluation. Final report: a report to the Secretary, U.S. Department of the Interior. <https://www.trrp.net/DataPort/doc.php?id=226>

⁸ U.S. Army Corps of Engineers. (2000). Upper Trinity River Basin, Trinity River, programmatic EIS: Environmental Impact Statement.

⁹ U.S. Department of Interior. 2000. Record of decision, Trinity River mainstem fishery restoration final environmental impact statement/environmental impact report. <https://www.trrp.net/DataPort/doc.php?id=227>

Summary

Table 10 summarizes anticipated obligations on CVPIA authorities from the Restoration Fund and Other Appropriations, the water and power reimbursable exposure if and when expenditures occur, and the offsetting payments into the Restoration Fund.

Table 10 – Total FY2020 Planned Obligations under CVPIA Authorities and Water and Power Reimbursability

Resource Area and Category	2020 Restoration	2020 Other	Total Obligation	Total Reimbursable
Fish	\$29,402,280	\$55,870,726	\$85,273,006	\$48,143,342
Real-Time Operations	\$1,238,862	\$10,759,544	\$11,998,406	\$6,883,042
Status and Trend	\$4,482,686	\$18,676,684	\$23,159,370	\$17,973,116
Habitat and Facility	\$20,839,370	\$15,779,834	\$36,619,204	\$16,044,287
Intervention	\$1,083,775	\$3,070,264	\$4,154,039	\$2,627,532
Special Study	\$1,757,587	\$7,584,400	\$9,341,987	\$4,615,364
Refuge	\$28,343,706	\$0	\$28,343,706	\$14,728,644
Level 2	\$17,210,381	\$0	\$17,210,381	\$14,728,644
Level 4	\$11,133,325	\$0	\$11,133,325	\$0
Independent	\$4,938,481	\$9,991,221	\$14,929,702	\$11,065,239
HRP	\$1,438,481	\$0	\$1,438,481	\$1,231,052
SJRRP	\$2,000,000	\$0	\$2,000,000	\$0
TRRP	\$1,500,000	\$9,991,221	\$11,491,221	\$9,834,187
Totals	\$62,684,467	\$65,861,947	\$128,546,414	\$73,937,225

Reclamation is reviewing the authorities used for implementation of the LTO. Where multiple potential authorities exist, Reclamation has selected a CVPIA authority with the highest reimbursable requirement to provide a conservative estimate of potential water and power obligations. The plan includes prior year funding where a de-obligation is believed likely to occur.

**Attachment 1 – Fiscal Year 2020 Planned
Obligations by Watershed and identifies CVPIA
Authorities**

Resource Area, Category, and Watershed (* indicates LTO Related)	Description	Authority	2020 Restoration	2020 Other Funds	Total Obligation	Total Reimb.
Fish			\$29,402,280	\$55,870,726	\$85,273,006	\$48,143,342
Real-Time Operations			\$1,238,862	\$10,759,544	\$11,998,406	\$6,883,042
Central Valley			\$1,238,862	\$350,000	\$1,588,862	\$679,872
*Real Time Operations: Watershed Group Facilitation (BPA Kearns and West)	Facilitates the implementation of seasonal and real-time actions through the technical teams operating on CVP tributaries and in the Delta.	(b)(2)	\$0	\$350,000	\$350,000	\$299,530
*FWS Water Ops Labor	Staffing	(b)(2)	\$173,605	\$0	\$173,605	\$148,571
*FWS Clear Creek Labor	Staffing	(b)(12)	\$447,201	\$0	\$447,201	\$0
*FWS CAMP Labor	Staffing	(b)(15)	\$488,917	\$0	\$488,917	\$183,344
*BOR Fisheries Labor	Staffing	(b)(1)	\$129,139	\$0	\$129,139	\$48,427
Sacramento			\$0	\$4,902,906	\$4,902,906	\$1,838,590
*Real Time Operations: Red Bluff Rotary Screw Trap	The juvenile production monitoring at Red Bluff is used to determine when listed-salmon are migrating down the Sacramento River, helps set the winter-run take level for the Delta pumps each year, and determines the effectiveness of operations at Shasta at maintaining salmonid survival in the upper Sac river. The Clear Creek monitoring helps determine effectiveness of water operations in Clear Creek/ Whiskeytown and of Clear Creek restoration actions. Battle Creek monitoring helps with evaluation of the Battle Creek restoration project and Coleman Hatchery operations.	(b)(15)	\$0	\$2,600,000	\$2,600,000	\$975,000
*Real Time Operations: SAIL Telemetry Support Upper Sac USFWS	Funds would be used for real-time monitoring of ESA-listed salmonids migrating through the Upper Sacramento River, to refined analysis of the effects of flow and other environmental factors on survival upstream of the Delta. Supports Battle Creek tagging and hatchery evaluation of fall-run Chinook salmon offsite releases.	(b)(15)	\$0	\$1,155,906	\$1,155,906	\$433,465
*Real Time Operations: Sacramento River Salmonid Monitoring - Pacific States Marine Fisheries Commission	Chinook Salmon adult spawning escapement monitoring in the mainstem Sacramento River for the performance measures required in the ROC on LTO. This agreement collects essential baseline environmental information needed to maintain healthy populations of anadromous fish for the continued benefit of the American public. The objectives of the project are to: 1) Estimate adult escapement of Sacramento River winter-run Chinook Salmon.; 2) Estimate adult escapement of Central Valley spring-run Chinook Salmon in Deer, Antelope, and Mill creeks; 3) Estimate adult escapement of fall-run Chinook Salmon in the main stem Sacramento River, American River, Clear, Mill, Deer, Battle, Cow, Cottonwood, and Bear creeks; and 4) Determine the effectiveness of salmonid spawning and rearing habitat restoration/ improvement projects at meeting CVP project goals.	(b)(15)	\$0	\$1,147,000	\$1,147,000	\$430,125
Delta			\$0	\$5,506,638	\$5,506,638	\$4,364,580
*Real Time Operations: Real-Time Genetic Monitoring	Replaces the "length at date" method for estimating Winter-run Chinook salmon with rapid genetic protocols and a new model for combing length and genetic data to avoid restricting CVP operations when listed fish are not present.	(b)(1)	\$0	\$600,000	\$600,000	\$513,480
*Real Time Operations: SAIL Telemetry Support Sacramento-San Joaquin Delta USGS	Funds would be used for real-time monitoring of ESA-listed salmonids entering and exiting the Delta, maximizing Reclamation's ability to make real-time water operations decisions on OMR management and better understand salmonid route selection, survival, and abundance.	(g)	\$0	\$406,638	\$406,638	\$0
*Real Time Operations: Delta Juvenile Fish Monitoring Program - USFWS	Provides information on fish entering and exiting the Delta for abundance and distribution. Supports the onset and off-ramps of OMR management. Informs juvenile production for take levels in salvage. Continue implementation of Delta Juvenile Fish Monitoring Program in partial fulfillment of monitoring requirements prescribed in the LTO.	(b)(1)	\$0	\$4,000,000	\$4,000,000	\$3,423,200
*Real Time Operations: Enhanced Delta Smelt Monitoring	Continues FWS monitoring for smelt and salmon in the Delta, including support for planning monitoring of the supplementation strategy.	(b)(1)	\$0	\$500,000	\$500,000	\$427,900
Status and Trend			\$4,482,686	\$18,676,684	\$23,159,370	\$17,973,116
Central Valley			\$3,943,086	\$3,320,940	\$7,264,026	\$4,629,321
*Status and Trend Monitoring: Data & Analytic Support from Flow West	Provides analytical support for the Science Integration Team and Delta Structured Decision Making processes.	(b)(15)	\$260,000	\$425,436	\$685,436	\$257,039

Resource Area, Category, and Watershed (* indicates LTO Related)	Description	Authority	2020 Restoration	2020 Other Funds	Total Obligation	Total Reimb.
*Status and Trends Monitoring: Constant Fractional Marking of Chinook from Coleman and Nimbus Hatcheries	Mark coded wire tag 25% of fall-run Chinook Salmon at Coleman and Nimbus hatcheries and fund the CVP proportion of the tag recovery and analysis in ocean and freshwater fisheries and in the escapement. Distinguish fall-run Chinook salmon from ESA listed winter-run and spring-run Chinook salmon at the export facilities.	(b)(1)	\$0	\$2,400,000	\$2,400,000	\$2,053,920
*Modeling Program	Develops models and tools to evaluate effects of alternative water management strategies, to improve scientific understanding of ecosystems.	(g)	\$700,000	\$0	\$700,000	\$0
*FWS AFRP Labor	Staffing	(b)(1)	\$2,450,723	\$0	\$2,450,723	\$2,097,329
*FWS Modeling Labor	Staffing	(g)	\$144,947	\$0	\$144,947	\$0
*BOR Fisheries Labor	Staffing	(b)(1)	\$387,416	\$0	\$387,416	\$221,033
*BOR BDO Modeling Labor	Staffing	(g)	\$0	\$495,504	\$495,504	\$0
American			\$251,000	\$0	\$251,000	\$94,125
*American River Rotary Screw Trap Project	Annual quantification of juvenile Chinook salmon production and the abundance of juvenile steelhead in the American River using rotary screw traps.	(b)(15)	\$225,000	\$0	\$225,000	\$84,375
*Status and Trend: Chinook Salmon Spawning Aerial Photography - American River	The monitoring included in this charter includes riverwide aerial photography conducted during Chinook spawning in November and December. The photography provides for a river-wide redd count and enables the visible redds to be mapped in a GIS shapefile. It also provides a visual as-built view of the current year project and of changes that occur at other project sites and throughout the river through time.	(b)(15)	\$26,000	\$0	\$26,000	\$9,750
Delta			\$0	\$15,355,744	\$15,355,744	\$13,141,446
*Status and Trend Monitoring: IEP Environmental Monitoring - DWR	Under a number of water right permits issued by the California State Water Resources Control Board, the CVP and SWP divert water from the southern Sacramento-San Joaquin Delta via large pumping facilities located in both Tracy and Byron, CA, respectively. A condition of these permits, specifically Water Rights Decision D-1641, is a requirement to maintain a network of discrete and continuous monitoring stations, collectively known as the Environmental Monitoring Program (EMP), and to conduct special studies focused on improving the understanding of the ways that CVP/SWP operations affect the Delta Ecosystem. Water Right Decision D-1641 specifies EMP monitoring locations and the variables to be monitored which include continuous water quality, discrete water quality, phytoplankton, zooplankton and benthos.	(b)(1)	\$0	\$2,800,000	\$2,800,000	\$2,396,240
*Status and Trend Monitoring: Directed Outflow Program - UCD Agreement Sweeteh Lab	Operation of the Central Valley Project (CVP) has been identified as a potential cause of reductions in the quantity and quality of habitat for Delta Smelt (<i>Hypomesus transpacificus</i>) and other native fish populations in the Sacramento-San Joaquin Delta-San Francisco Bay estuary (Bay-Delta). There is concern Delta Smelt will become extinct in the near future if something is not done to change the species declining population trend. There remains a great need to better understand the mechanisms and drivers impacting Delta Smelt vital rates and associated habitat features, particularly with respect to outflow conditions.	(b)(1)	\$0	\$850,000	\$850,000	\$727,430
*Status and Trend Monitoring: Fish Monitoring - New Award with CA Fish and Wildlife	Surveys to provide valuable data on the relative abundance and distribution of fish populations and important information about their habitat including water quality and food resources. The data are used to assess fish population and environmental status and trends and for project operations (e.g., reservoir releases, gate operations, export pumping, etc.). Meets requirements on Reclamation's permits to divert water from the Sacramento-San Joaquin Delta (Delta) as conditioned by Water Right Decision D-1641 and Biological Opinions issued by the US Fish and Wildlife Service for Delta Smelt and by the National Marine Fisheries Service for winter run, spring run and other threatened or endangered anadromous fish populations.	(b)(1)	\$0	\$5,085,724	\$5,085,724	\$4,352,363
*Status and Trend Monitoring: Science Support with USGS to Operate Continuous Tidal Flow and Turbidity Stations	Environmental data for the real time management of OMR flows Factors being monitored are those associated with the Delta Smelt movement and are used to better anticipate and predict Delta Smelt distribution and entrainment risk. Lower risk of entrainment could provide additional operational flexibility.	(b)(1)	\$0	\$5,800,000	\$5,800,000	\$4,963,640
*BOR BDO IEP Labor	Staffing	(b)(1)	\$0	\$820,020	\$820,020	\$701,773
Stanislaus			\$225,000	\$0	\$225,000	\$84,375
*Stanislaus River Rotary Screw Trap Project	Annual quantification of juvenile Chinook salmon production and the abundance of juvenile steelhead in the American River & Stanislaus River using rotary screw traps.	(b)(15)	\$225,000	\$0	\$225,000	\$84,375

Resource Area, Category, and Watershed (* indicates LTO Related)	Description	Authority	2020 Restoration	2020 Other Funds	Total Obligation	Total Reimb.
Cosumnes			\$63,600	\$0	\$63,600	\$23,850
Cosumnes River - Adult Escapement Monitoring	Cosumnes River Adult Escapement Monitoring	(b)(15)	\$63,600	\$0	\$63,600	\$23,850
Habitat and Facility			\$20,839,370	\$15,779,834	\$36,619,204	\$16,044,287
Central Valley			\$0	\$418,323	\$418,323	\$156,871
BOR BDO Gravel Labor	Staffing	(b)(13)	\$0	\$418,323	\$418,323	\$156,871
American			\$1,000,000	\$1,502,030	\$2,502,030	\$938,261
*Habitat and Facility Improvement: American River Salmonid Spawning and Rearing Habitat Restoration - City of Sacramento	Salmonid habitat improvement projects on the American River including construction of side channels, floodplain excavation, sorting of excavated material, placement of material in the river channel, installation of woody material, boulder additions.	(b)(13)	\$1,000,000	\$1,502,030	\$2,502,030	\$938,261
Clear Creek			\$1,257,990	\$0	\$1,257,990	\$0
*Clear Creek Gravel Injection	Placement of gravel into Clear Creek to provide spawning habitat for anadromous salmonids and to promote geomorphic processes that create habitat for all in-river fish life stages.	(b)(12)	\$320,000	\$0	\$320,000	\$0
*Clear Creek Phase 3B Completion	This project completes Phase 3B floodplain restoration actions that were unfinished/unfunded at time of original construction due to State bond crisis. This project fulfills commitments made to permitting agencies, the public, and landowners.	(b)(12)	\$200,000	\$0	\$200,000	\$0
*Clear Creek Stream Channel Restoration Phase 3C	This project completes the final phase of the 1999 Clear Creek Floodway Restoration Project conceptual plan. The project improves the stream channel, floodplains, and associated habitats of the Phase 3C site increasing spawning and rearing habitat for salmonids.	(b)(12)	\$737,990	\$0	\$737,990	\$0
Sacramento			\$15,476,450	\$4,000,000	\$19,476,450	\$9,304,758
*Habitat and Facility Improvement: Salmonid Habitat Restoration in the Sacramento River- FOA	Improves rearing and spawning habitats for salmonids in the Sacramento River to address factors limiting anadromous fish populations and reduce constraints on water operations and transitions to a competitive funding approach.	(b)(13)	\$4,000,000	\$4,000,000	\$8,000,000	\$3,000,000
*Sutter Bypass Weir 1 Restoration	Rehabilitation of weir structure and fish ladder at Weir 1, Sutter Bypass-West Borrow.	(b)(1)	\$212,000	\$0	\$212,000	\$181,430
*Sacramento River - East Sand Slough Restoration	Improves juvenile rearing habitat at East Sand Slough side channel on the Sacramento River in Red Bluff.	(b)(13)	\$1,600,000	\$0	\$1,600,000	\$600,000
*Sacramento River - Improve Spawning Habitat above Temperature Control Points	Includes Gravel Injection at Keswick Dam and instream gravel placement at downstream locations to the temperature control point.	(b)(13)	\$1,600,000	\$0	\$1,600,000	\$600,000
*Sacramento River Salmonid Habitat Improvement - Keswick to Red Bluff	Completes rearing and spawning habitats for salmonids in the Sacramento River above Red Bluff Diversion Dam consistent with the (b)(13) program.	(b)(13)	\$4,114,450	\$0	\$4,114,450	\$1,542,919
*Sacramento River Salmonid Habitat Improvement - Red Bluff to Feather River	Creates rearing habitat downstream of Red Bluff Diversion Dam.	(b)(1)	\$3,950,000	\$0	\$3,950,000	\$3,380,410
Delta			\$676,000	\$9,059,481	\$9,735,481	\$3,771,005
*Habitat and Facilities Improvement: Head of Old River Habitat Restoration - Scour Hole	Modeling and design options for addressing habitat and hydraulic interactions at the Head of Old River will be undertaken through interagency project planning. Ultimately, an EIS/EIR will be developed to determine the best option for reducing predator habitat and entrainment towards the facilities. This may improve the survival of juvenile steelhead through this reach of the lower San Joaquin River.	(b)(4)	\$0	\$750,000	\$750,000	\$281,250
*Habitat and Facilities Improvement: Yolo Bypass	Construction of inundation notch at the Fremont Weir, which is a component of the ROC on LTO. Provides increased operational flexibility for the CVP and SWP through improvements to adult fish passage and juvenile salmonid rearing habitat.	(b)(4)	\$0	\$5,400,000	\$5,400,000	\$2,025,000
*Habitat and Facility Improvement: Delta Cross Channel Gate Upgrades	Evaluates alternatives to provide flexibility to operate the Cross Channel gates to maintain water quality while avoiding entrainment of fish into the Central and South Delta. Funding would be used to supplement prior year funds to complete additional analyses. Supports the ROC on LTO salvage performance measures associated with operations of the Tracy Pumping Plant.	(b)(4)	\$0	\$500,000	\$500,000	\$187,500
*Habitat and Facility Improvement-Tidal Parr	This Parr Study project goal is to expand, and execute, a planned study of juvenile salmon in the Sacramento-San Joaquin River Delta and Suisun Bay region.	(b)(1)	\$250,000	\$0	\$250,000	\$213,950
*Tracy Fish Facility Improvement Program	Annual Tracy Fish Facility Improvement Program (TFFIP).	(b)(4)	\$426,000	\$1,895,000	\$2,321,000	\$870,375

Resource Area, Category, and Watershed (* indicates LTO Related)	Description	Authority	2020 Restoration	2020 Other Funds	Total Obligation	Total Reimb.
*BOR BDO Yolo Bypass Labor	Staffing	(b)(4)	\$0	\$514,481	\$514,481	\$192,930
Feather			\$1,325,000	\$0	\$1,325,000	\$1,133,935
Feather River: Salmonid Spawning Habitat Improvement Project	The placement, sorting, and harvesting of gravel and cobble (1/4"-5") to restore spawning habitat in the Feather River.	(b)(1)	\$1,060,000	\$0	\$1,060,000	\$907,148
Feather River/Sutter Bypass - Nelson Slough	The proposed project will substantially increase available floodplain habitat in the lower Feather River corridor through Nelson Slough and contribute to improved quality of juvenile salmonids rearing habitat through increased production and availability of food resources.	(b)(1)	\$265,000	\$0	\$265,000	\$226,787
Stanislaus			\$1,050,930	\$800,000	\$1,850,930	\$694,099
*Habitat and Facility Improvement: Stanislaus River Salmonid Spawning and Rearing Habitat Restoration	Work towards implementation of salmonid habitat improvement at Two Mile Bar (contingent on successful landowner agreement) or large gravel addition for spawning and rearing habitat improvement at Goodwin Dam (contingent on successful installation of bridge replacement over OID canal).	(b)(13)	\$0	\$800,000	\$800,000	\$300,000
*Stanislaus River Migratory Corridor Rehabilitation	A collaborative habitat restoration effort focused on shallow-water rearing and migratory habitats benefitting juvenile salmonids in the Stanislaus River corridor.	(b)(13)	\$159,000	\$0	\$159,000	\$59,625
*Stanislaus River: Restoration at Kerr Park	The project will restore seasonal inundation to approximately 10 acres of floodplain habitat located at Kerr Park (rm 43), with additional in-channel enhancement.	(b)(13)	\$361,400	\$0	\$361,400	\$135,525
*Stanislaus River: Spawning, Side-Channel and Floodplain Habitat	Complete design for 2 restoration project site(s), followed by design/planning/implementation to restore spawning/rearing (side-channel) salmon habitats.	(b)(13)	\$530,530	\$0	\$530,530	\$198,949
Tuolumne			\$53,000	\$0	\$53,000	\$45,357
Tuolumne River: River Mile 44 Spawning and Rearing Habitat	Tuolumne River - River Mile 44 Spawning and Rearing Habitat Restoration. Project consists of floodplain grading, floodplain reconnection, gravel processing, and in-channel gravel injection using processed floodplain material.	(b)(1)	\$53,000	\$0	\$53,000	\$45,357
Intervention			\$1,083,775	\$3,070,264	\$4,154,039	\$2,627,532
Sacramento			\$1,083,775	\$0	\$1,083,775	\$0
*Intervention: Growing Fish Food on Floodplain Farm Fields	This proposal outlines coordinated science and management approach to re-integrate agricultural floodplain productivity into river ecosystems. The project boosts aquatic food webs and support recovery of abundant fish populations by subsidizing the food-poor river ecosystem with highly productive floodplain-derived food web resources grown in intentionally inundated winter rice fields, thereby improving juvenile salmonid foraging success in non-natal rearing habitats. Data produced by these actions will be used in the development of a food web and fish growth rate sub-module of the Science Integration Team's Salmon Decision Support Model.	(g)	\$1,083,775	\$0	\$1,083,775	\$0
Delta			\$0	\$3,070,264	\$3,070,264	\$2,627,532
*Intervention: UCD Delta Smelt FCCL Agreement	The Fish Conservation and Culture Laboratory (FCCL) program aims to continue maintaining a Delta Smelt refuge population under genetic management as a safeguard against species extinction in the wild. Research with Delta Smelt will be conducted onsite to examine aspects of Delta Smelt ecology/physiology. The program will produce a supply of all life stages for experimental releases and research purposes and assist as needed.	(b)(1)	\$0	\$3,070,264	\$3,070,264	\$2,627,532
Special Study			\$1,757,587	\$7,584,400	\$9,341,987	\$4,615,364
Central Valley			\$0	\$2,500,000	\$2,500,000	\$2,139,500
*Special Study: Collaborative for Science Adaptive Management Program (CSAMP) Competitive Funding Opportunity	The objectives of this funding, paired with State funding from the Delta Stewardship Council, are to provide financial support to multiple studies focused on the direct effects of project exports on salmonid survival. This effort solicits the best and brightest ideas through competition and expanding the potential pool of researchers to span academics, private sector, stakeholders, and the public.	(b)(1)	\$0	\$2,000,000	\$2,000,000	\$1,711,600
*Special Study: Upper Sacramento Science Collaborative Decision Making (BPA Kearns and West)	Provides support for the Upper Sacramento River Science Partnership to develop actions under the science plan and refine actions that may improve growth and survival.	(b)(1)	\$0	\$500,000	\$500,000	\$427,900
Sacramento			\$415,425	\$1,239,756	\$1,655,181	\$6,722

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*Sacramento River Tributaries Non-Natal Rearing Evaluation	Confirm current non-natal use and existing/potential habitat in tributaries along upper Sac River. Identify access issues to support planning and implement of restoration on tributaries.	(g)	\$397,500	\$0	\$397,500	\$0
*Special Studies Food Temperature Optimization Model for CVP	This 3 to 5-yr study will help determine if reservoir releases can be managed to boost downstream zooplankton and benthic invertebrate ('fish food') production to offset effects of higher water temperature on salmonid growth and condition.	(g)	\$0	\$239,756	\$239,756	\$0
*Special Study: Enhanced Upper Sacramento River Escapement and Predation	The objectives of this funding, paired with State funding from the Delta Stewardship Council, are to provide financial support to multiple studies focused on the direct effects of project exports on salmonid survival in collaboration with the Upper Sacramento Science Plan and unraveling sources of mortality in the performance metrics. This effort solicits the best and brightest ideas through competition and expanding the potential pool of researchers to span academics, private sector, stakeholders, and the public. This effort solicits the best and brightest ideas through competition and expanding the potential pool of researchers to span academics, private sector, stakeholders, and the public.	(g)	\$0	\$1,000,000	\$1,000,000	\$0
Evaluating the role(s) of the Butte sink and Sutter Bypass for Butte Creek Spring-Run and Other Central Valley Juvenile Salmonid Populations	This proposal will evaluate the growth benefits of the Sutter Bypass and compare survival between the Sacramento River and lower Butte Creek/Sutter Bypass area.	(b)(15)	\$17,925	\$0	\$17,925	\$6,722
Delta			\$1,342,162	\$3,844,644	\$5,186,806	\$2,469,143
*Special Studies: Directed Outflow Program - ICF Contract	The results of the DOP are strengthening our understanding of the mechanisms and drivers impacting Delta Smelt. Reclamation used this information to develop the Proposed Action for the ROC on LTO, and expects to use this information in the future to inform real-time operations and our comprehensive assessment program that monitors fish and wildlife resources in the Central Valley for the summer / fall Delta Smelt habitat.	(b)(1)	\$0	\$2,447,000	\$2,447,000	\$2,094,143
*Special Studies: Aquatic Fish Sampling Platform	Addresses whether the current inability to sample in shallow waters biases estimates of Delta Smelt and other fish abundance. The Aquatic Habitat Sampling Platform (AHSP) is a modified pontoon boat outfitted with a front-end push net that guides fish toward a live well equipped with video cameras that feed digital imagery to a computer system trained to count, measure and classify fish.	(g)		\$397,644	\$397,644	\$0
*Special Studies: San Joaquin River Steelhead Telemetry Study Supplies	This is a conservation measure under the proposed action that will inform adjustments to incidental take levels under the ROC proposed action and supply information for modeling measures to avoid entrainment. during real time operations. Use acoustically-tagged salmonids to track outmigrant route selection and survival to inform real-time operation of CVP. Continuation of six year steelhead project.	(b)(15)	\$0	\$1,000,000	\$1,000,000	\$375,000
*Status and Trend-Predator Contact Points	Define predator contact points, then determine if predator contact points exist. Hypothesis: Can CVPIA management actions modify the contact point in a manner that increases juvenile salmonid survival.	(g)	\$1,342,162	\$0	\$1,342,162	\$0
Refuge			\$28,343,706	\$0	\$28,343,706	\$14,728,644
Level 2			\$17,210,381	\$0	\$17,210,381	\$14,728,644
Refuge L2 Conveyance	Conveyance of surface water and groundwater pumping for refuges	(d)(1)	\$14,821,575	\$0	\$14,821,575	\$12,684,304
FWS Refuge Level 2 Labor	Staffing	(d)(1)	\$154,876	\$0	\$154,876	\$132,543
BOR Refuges Labor	Staffing	(d)(1)	\$268,277	\$0	\$268,277	\$229,591
Gray Lodge Construction (80% L2)	Project implementation or contract and construction management service for the Level 2 Portion of conveyance to Gray Lodge.	(d)(1)(5)	\$756,392	\$0	\$756,392	\$647,320
Sutter Construction (78% L2)	Sutter NWR Lift Station Construction Support Services for the Level 2 Portion of conveyance to Sutter National Wildlife Area	(d)(1)(5)	\$405,261	\$0	\$405,261	\$346,822
East Bear Creek Pump Repair (67% L2)	Service agreement for O&M support services for the Level 2 Portion of conveyance to East Bear Creek.	(d)(1)(5)	\$804,000	\$0	\$804,000	\$688,063
Level 4			\$11,133,325	\$0	\$11,133,325	\$0
Refuge IL4 Conveyance	Conveyance of surface water and groundwater pumping for refuges	(d)(2)	\$1,177,880	\$0	\$1,177,880	\$0
FWS Refuge IL4 Labor	Staffing	(d)(2)	\$309,752	\$0	\$309,752	\$0
BOR Refuges Labor	Staffing	(d)(1)	\$374,291	\$0	\$374,291	\$0
Gray Lodge Construction (20% IL4)	Project implementation or contract and construction management service for the IL4 Portion of conveyance to Gray Lodge.	(d)(2)(5)	\$189,098	\$0	\$189,098	\$0

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Sutter Construction (22% IL4)	Sutter NWR Lift Station Construction Support Services for the IL4 Portion of conveyance to Sutter National Wildlife Area	(d)(2)(5)	\$114,304	\$0	\$114,304	\$0
East Bear Creek Pump Repair (33% IL4)	Service agreement for O&M support services for the IL4 Portion of conveyance to East Bear Creek.	(d)(2)(5)	\$396,000	\$0	\$396,000	\$0
Incremental Level 4 Water Purchases and L2 Exchanges	Purchase of Incremental Level 4 and Exchange of L2 Refuge Water	(d)(2)	\$8,572,000	\$0	\$8,572,000	\$0
Independent			\$4,938,481	\$9,991,221	\$14,929,702	\$11,065,239
HRP			\$1,438,481	\$0	\$1,438,481	\$1,231,052
*Habitat Restoration Program (HRP)	Land Protection and Habitat Restoration Projects	(b)(1) other	\$1,146,474	\$0	\$1,146,474	\$981,152
FWS HRP Labor	Staffing	(b)(1) other	\$168,993	\$0	\$168,993	\$144,624
BOR HRP Labor	Staffing	(b)(1) other	\$123,014	\$0	\$123,014	\$105,275
SJRRP			\$2,000,000	\$0	\$2,000,000	\$0
San Joaquin River Restoration Program	Construction of Mendota Pool Bypass for flow routing and fish passage.	(c)(1)	\$2,000,000	\$0	\$2,000,000	\$0
TRRP			\$1,500,000	\$9,991,221	\$11,491,221	\$9,834,187
Trinity River Restoration Program	Implementing the Record of Decision for the Trinity River Restoration Program including flows, gravel, monitoring, watershed restoration work, and related administration.	(b)(1) Trinity	\$1,500,000	\$9,991,221	\$11,491,221	\$9,834,187