



# 2017 ANNUAL WORK PLAN PUBLIC DRAFT

TITLE XXXIV OF PUBLIC LAW 102-575

JUNE 1, 2016



Bureau of Reclamation  
Mid-Pacific Region



U.S. Fish and Wildlife Service  
California and Nevada Region



# **2017 ANNUAL WORK PLAN PUBLIC DRAFT**

**CENTRAL VALLEY PROJECT IMPROVEMENT ACT  
TITLE 34 OF PUBLIC LAW 102-575**

## **Version**

June 1, 2016 - Initial Drafting from PM Charter Submissions

June 24, 2016 – Revised Initial Corrections and Modifications

June XX, 2016 – Public Draft with Revisions after Agency Feedback

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U.S. Bureau of Reclamation, Mid-Pacific Region

U.S. Fish and Wildlife Service, California and Nevada Region

<http://www.usbr.gov/mp/cvpia>

*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.*

*The mission of the Fish and Wildlife Service is to work with others to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people.*

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## Introduction

The U.S. Bureau of Reclamation (Reclamation) and the U.S. Fish and Wildlife Service (Service) developed this Annual Work Plan (Work Plan) in coordination with the U.S. National Marine Fisheries Service (NMFS) and the State of California (State) represented by the Department of Fish and Wildlife (DFW) and Department of Water Resources (DWR), collectively the “Agencies”, to disclose and solicit feedback on activities planned for the upcoming fiscal year using the Central Valley Project Restoration Fund (CVPRF) and authorities under the Central Valley Project Improvement Act (CVPIA or Act), Title 34 of Public Law 102-575. A subsequent Accomplishment Report will describe the results from implementing this Work Plan. The CVPIA public website provides background information on the CVPIA and access to prior work plans and accomplishment reports at: <http://www.usbr.gov/mp/cvpia>.

## Background

On October 30, 1992, President Bush signed the CVPIA to amend previous authorizations of the Central Valley Project (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. The Act established the Central Valley Project Restoration Fund (CVPRF or Restoration Fund) for donations from any source and revenues provided through payments by CVP water and power customers. Reclamation and the Service jointly implement the CVPIA for the Department of the Interior (Interior) in collaboration with State and local governments, Tribes, non-governmental organizations, and stakeholders. Section 3406 of the Act requires a number of activities to support fish and wildlife. This Work Plan provides a snapshot of section 3406 activities planned for the upcoming year.

This Work Plan structures CVPIA by “Charters”. Individual Charters can represent a project with a discrete start and end, and can also include administration, management, grant programs, or long-term monitoring activities. Charters provide a high-level estimation of the proposed activities including the intended outcome, total costs, and schedule. Charters are included in Appendix B. This document summarizes the Charters into the general areas of:

- Fish Resources - Activities under section 3406(b) of the Act to improve natural production of anadromous fish in Central Valley rivers and streams;
- 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;
- Independent Programs - including the:
  - Habitat Restoration Program (HRP) - Activities authorized under section 3406(b)(1) to mitigate the other adverse environmental impacts of the CVP on Endangered Species Act (ESA) listed species other than anadromous fish,
  - Ecosystem and Water System Operations Modeling Program (Modeling) - Activities authorized under section 3406(g) of the Act to develop readily usable and broadly available models and supporting data to evaluate the ecologic and hydrologic effects

of existing and alternative operations of public and private water facilities and systems,

- San Joaquin River Restoration Program (SJRRP) - Use of the CVPRF 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., 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 provision within 3406(b)(1); and
- Administration - Activities to manage and report on the Restoration Fund.

This Work Plan focuses on the Restoration Fund, but may include other funding sources where relevant, including Water and Related Resources (WRR), the Bay Delta Fund (BDF), and State cost-share. CVPIA activities that rely exclusively on resources other than the Restoration Fund will be reported in the Annual Accomplishment report, but may not appear in this Work Plan.

**Status**

In 2016, activities under the Fish Resource Area continued work to improve the scientific framework supporting decision making and improve integration across the requirements of the CVPIA for Central Valley fisheries. The Work Plan for 2017 continues the newly, established integrated fisheries program through a process that provides base funding for individual provisions to meet labor and maintenance costs and then a combined pool of additional project funds prioritized by the Agencies across all fisheries authorities. The Refuge Water Supply Program will continue priority actions developed under a Stakeholder Technical Team and further refined by coordination with stakeholders.

The 2017 President’s Budget included a request for \$55.6 million for the Restoration Fund as shown in Table 1. The budget was developed to be flexibly aligned within the fisheries programs and between fisheries and refuges.

**Table 1 - Initial Base Alignment of the Restoration Fund**

Fish	
Program Staff*	\$5,100,000
Long-Term Datasets	\$2,650,000
Program-Specific Requirements**	\$5,800,000
Science-Based Priority Projects	\$9,350,000
Refuge	
Program Staff	\$1,500,000
Conveyance, Acquisition, and Facilities	\$23,606,000
Independent Programs	
Habitat Restoration	\$1,500,000
Ecosystem and Water Ops. Modeling	\$600,000



San Joaquin River Restoration	\$2,000,000
Trinity River Restoration	\$1,500,000
Administration	\$2,000,000

\*Includes: (b)(1) Anadromous Fish Restoration Program (AFRP); Yield, (b)(2) Dedicated Yield; (b)(3) Instream Flow Acquisition (Instream); (b)(12) Clear Creek Flows, (b)(12) Clear Creek Channel Restoration; (b)(13) CVP Spawning and Rearing Habitat (Gravel); (b)(16) Comprehensive Analysis and Monitoring Program (CAMP); (b)(21) Anadromous Fish Screen Program (AFSP).

\*\*Legal requirements, legacy commitments, program discretionary funding, and any other activities that are not part of the prioritization effort across all fisheries programs.

Charters include an estimate of future funding requested to accomplish the proposed work. The specific budgets for future years (out-year budgets) are embargoed and cannot be disclosed or discussed. Out-year funding in the Charters shows the level of effort necessary to complete the work, but does not represent a commitment by Reclamation or the Service to provide those resources and actual future budgets may differ. The ability to obligate funds in this Work Plan will depend upon appropriations from the U.S. Congress, collections from water and power contractors, and the execution of non-federal cost-share where required.

## Next Steps

To develop the Charters enclosed in this Public Draft Work Plan, the federal and state programs and project managers assembled proposed activities for the upcoming year based on an estimated budget. Activities were reviewed by the Agencies and then Charters were further revised to create this Public Draft. Reclamation and the Service appreciate the feedback and assistance provided by our partner agencies and retain final decision making on the content of this Work Plan. Following public review and feedback, this Work Plan will be revised, finalized, and posted to the CVPIA public website on or around September 30, 2016. Revisions and adjustments to the specific activities may occur during implementation depending on the ability to make progress and any priorities that emerge throughout the year. Reclamation and the Service will prepare an Annual Accomplishments Report at the conclusion of the 2017 Fiscal Year to disclose the results of implementation.

## Fish Resource Area

The Fish Resource Area includes all provisions under section 3406(b) of the CVPIA to improve natural production of anadromous fish in Central Valley rivers and streams. Descriptions of the specific strategies and efforts to address the individual paragraphs within the Act are accessible online from the CVPIA public website: <http://www.usbr.gov/mp/cvpia>.

The Service coordinated with the Agencies to release the Service's Draft Implementation Plan for the Fish Resource Area with an Adaptive Resource Management (ARM) framework and a more integrated approach to developing priorities for the different activities under section 3406(b). The Service and Reclamation, in coordination with a Core Team consisting of Agency representatives, considered the Science Integration Team (SIT) recommended priorities and released a memorandum of fish program priorities (Attachment 1). This memorandum included the SIT recommended priorities and Core Team prioritizing elements. These elements included:

- 1) Watersheds with Identified Priority Actions

- 2) Benefits to Endangered Species Act (ESA) Listed Species
- 3) Benefits to Multiple Species
- 4) Cost-Share
- 5) Long-Term Partnerships and Coordination with other Restoration Efforts
- 6) Project that address DSM modules identified as having high uncertainty

The Service and Reclamation evaluated submitted Charters based on the priorities.

Application of the criteria results in consideration of 15 watersheds, 34 ongoing activities, and 16 potential new categories of actions. Table 2 shows the resulting Charters and 2017 funding requirements and funding sources.

**Table 2 – Fish Resource Area Implementation Charters**

<b>Watershed and Charter</b>	<b>CVPRF</b>	<b>WRR</b>	<b>State/Local</b>	<b>Total</b>
<b>Central Valley Wide</b>				
Assess Impacts of River Structure Lighting	\$183,000			\$183,000
b1 AFRP Program Administration and Management	\$3,013,374			\$3,013,374
b2 operations	\$333,863			\$333,863
b2 administration	\$82,874			\$82,874
b13 Program Administration	\$320,000			\$320,000
CAMP Program Manager	\$239,150			\$239,150
CAMP rotary screw trap Platform enhancements	\$134,214			\$134,214
CAMP Internet data portal	\$129,139			\$129,139
CVP watershed adult salmon escapement database	\$350,000			\$350,000
Pacific States Marine Fishery Commission database support	\$116,000			\$116,000
Anadromous Fish Screen Program (AFSP) Projects	\$750,000			\$750,000
AFSP Administration	\$665,182			\$665,182
<b>American River</b>				

<b>Watershed and Charter</b>	<b>CVPRF</b>	<b>WRR</b>	<b>State/Local</b>	<b>Total</b>
American River rotary screw trap project	\$226,100			\$226,100
American River Salmonid Habitat Improvement at upper River Bend	\$600,000			\$600,000
<b>Battle Creek</b>				
b1 North Fork Battle Creek Natural Barrier Removal	\$106,000			\$106,000
Battle Creek Winter run Chinook re-introduction and Battle Creek Coleman weir passage project	\$500,000			\$500,000
<b>Butte Creek</b>				
b1 Sutter Bypass Weir 1 Restoration	\$318,000			\$318,000
<b>Clear Creek</b>				
b12 Clear Creek Adaptive Management	\$301,107			\$301,107
b12 Clear Creek Program Management	\$95,660	\$99,016	\$48,503	\$243,179
b12 Clear Cr Spawning Gravel Injection	\$298,698			\$298,698
b12 Clear Creek Channel Maintenance Flows (aka EWP)	\$0			\$0
b12 Clear Creek Flows	\$0			\$0
b12 Clear Creek Stream Channel Restoration including Phase 3C	\$4,397,469			\$4,397,469
b12 Lower Clear Cr Aquatic Habitat and Mercury Abatement Project	\$40,000		\$2,250,000	\$2,290,000
b12 Replace Oak Bottom Temperature Control Curtain	\$15,000			\$15,000
<b>Deer Creek</b>				
Deer Creek Irrigation District Dam Fish Passage Project	\$2,549,300			\$2,549,300

<b>Watershed and Charter</b>	<b>CVPRF</b>	<b>WRR</b>	<b>State/Local</b>	<b>Total</b>
Deer Creek: Fish Passage at SVRIC	\$79,500			\$79,500
<b>Merced River</b>				
b1 Merced River Instream & Off-Channel Drought-Resilient Habitat Rehabilitation	\$296,800			\$296,800
<b>Mokelumne River</b>				
Identifying and reducing impacts of riparian water diversions - Mokelumne River	\$21,200		\$17,800	\$39,000
Lower Mokelumne River Salmonid Spawning and Rearing Habitat Improvement Project	\$53,000		\$92,500	\$145,500
<b>Sacramento-San Joaquin Delta</b>				
Delta Salmon Survival Study	\$1,086,880			\$1,086,880
TFFIP Administration		\$122,413		\$122,413
TFFIP Implementation		\$430,066		\$430,066
Reconfigure Breached Delta Levees	\$111,300			\$111,300
Recreate Shallow Water Habitat in the Delta Migration Routes	\$318,000			\$318,000
b1 San Joaquin River Sturgeon Habitat Assessment	\$287,953			\$287,953
<b>Stanislaus River</b>				
Stanislaus River rotary screw trap monitoring	\$220,922			\$220,922
b1 Migratory Corridor Rehabilitation	\$975,200			\$975,200
Stanislaus River Salmonid Spawning and Rearing Habitat Restoration	\$330,000			\$330,000
<b>Tuolumne River</b>				
b1 Tuolumne River: Dos Rios Floodplain Restoration	\$26,500			\$26,500
<b>Upper Sacramento Basin and Tributaries</b>				
b1 Green Sturgeon Juvenile Investigation	\$274,195			\$274,195

<b>Watershed and Charter</b>	<b>CVPRF</b>	<b>WRR</b>	<b>State/Local</b>	<b>Total</b>
b1 Impacts of Marijuana Activity on Fish	\$116,388			\$116,388
Disease impact on Winter-run juvenile Chinook salmon survival in the Upper Sacramento River	\$65,775			\$65,775
Natural and Artificial Rearing Structures in the Upper Sacramento	\$116,600			\$116,600
Restore Rearing and Spawning Side Channels in the Upper Sacramento River	\$2,000,000			\$2,000,000
<b>Yuba River</b>				
b1 Yuba River Hallwood Floodplain Restoration Project	\$424,000			\$424,000
b1 Yuba River Hammon Bar Velocity Validation	\$5,777			\$5,777
b1 Yuba River Narrows Restoration Project	\$324,837			\$324,837
<b>Grand Total</b>	<b>\$22,898,957</b>	<b>\$651,495</b>	<b>\$2,408,803</b>	<b>\$25,959,255</b>

\*CVPRF = Central Valley Project Restoration Fund, WRR = Water and Related Resources.

Additional Fish Resource Area projects may be undertaken if funding allows. Uncertainties include environmental compliance and permitting requirements, construction costs, and the reliability of collections for the Restoration Fund.

Table 3 shows a list of potential additional Charters, in no particular order, if additional funding becomes available.

**Table 3 – Unfunded Potential Additional Fisheries Charters for 2017**

<b>Charter</b>	<b>Total</b>
Central Valley: Sturgeon Spawning Survey and Habitat Mapping	\$124,216
b1 Sturgeon Population Dynamics and Demographics Evaluation	\$121,900
Instream Water Acquisition	\$300,000

b1 Feather River Oroville Wildlife Area flood stage reduction	\$6,650,016
b1 Feather River Sunset Pumps Sturgeon and Salmon Passage	\$1,875,800
Lower Mokelumne River Salmonid Spawning and Rearing Habitat Improvement Project	\$53,000
b1 DCC GFFB at Deadhorse Cut	\$3,314,252
b1 Sacramento River Tisdale Weir sturgeon and salmonid passage	\$477,000
b1 San Joaquin River Sturgeon Habitat Assessment	\$287,953
b1 Tuolumne River - River Mile 44 Spawning and Rearing Habitat Restoration	\$626,163
b1 Yuba River Daguerre Point Dam Juvenile Salmon Outmigration Study	\$477,000
b1 Yuba River Restoration Downstream of Highway 20	\$1,749,000
Yuba Upper Rose Bar Restoration	\$300,000

Reclamation and the Service may update the list of Charters based on feedback received on this Draft Work Plan.

## 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 requirements. Section 3406(d)(1) “Level 2” requires 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 as set forth in the Refuge Water Supply Report 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 Report. Section 3406(d)(2) “Incremental Level 4” requires 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 as 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 acquired through voluntary measures. A full Level 4 water supply (Level 2 plus Incremental Level 4) will provide for optimum habitat management to support 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: 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 2017 funding. Based on feedback, the RWSP funding prioritized Charters based on:

1. Program Administration
2. Making full amount of Level 2 water supplies available. In the event of a drought where shortage provisions take effect, the full amount may consist of a 75% allocation of Level 2 and groundwater pumping and acquisition of Incremental Level 4 water.
3. Operation and Maintenance of Incremental Level 4 Facilities
4. Existing Commitments to Facility Construction and Long-Term Water Acquisition Projects
5. Immediate Incremental Level 4 Acquisitions
6. Facility Construction and Development of Long-Term Incremental Level 4 Water Supplies:

Table 4 shows the proposed activities.

**Table 4 – Refuge Water Supply Implementation Charters**

<b>Program Components and Charters</b>	<b>CVPRF</b>	<b>SIK</b>	<b>Total</b>
<b>Administration</b>			
RWSP Administration	\$947,372		\$947,372
RWSP Technical Support	\$195,541		\$195,541
<i>Subtotal</i>	\$1,142,913		\$1,142,913
<b>Level 2 Water Supply</b>			
Level 2 Refuge Water Conveyance (FY2017)	\$15,489,541	\$81,000	\$15,570,541
<i>Subtotal</i>	\$15,489,541	\$81,000	\$15,570,541
<b>Refuge Construction</b>			
Refuge Construction - East Bear Creek Pump Station O&M	\$606,000		\$606,000
<i>Subtotal</i>	\$606,000		\$606,000
<b>Incremental Level 4</b>			
Inc. Level 4 Water Purchases and L2 Exchanges	\$6,000,000		\$6,000,000
Inc. Level 4 Refuge Water Conveyance (FY2017)	\$1,401,579		\$1,401,579
<i>Subtotal</i>	\$7,401,579		\$7,401,579
<b>Grand Total</b>	<b>\$24,640,033</b>	<b>\$81,000</b>	<b>\$24,721,033</b>

\*CVPRF = Central Valley Project Restoration Fund, SIK = State In-Kind.

The RWSP anticipates substantial coordination with the State on Proposition 1 funding directed towards State contributions for RWSP. Several of these activities are shown as unfunded needs in Table 5. The RWSP will be working with partners on strategies to meet these needs.

**Table 5 – Refuge Water Supply Unfunded Needs**

<b>Charter</b>	<b>Total</b>
Refuge Water Acquisition - NVRWP*	\$10,000,000
Refuge Construction - Mendota WA Water Supply Study	\$500,000
Refuge Construction - Sutter NWR Lift Station	\$4,350,000
Refuge Construction - Biggs-West Gridley/Gray Lodge Refuge	\$4,270,000

\*NVRWP = North Valley Regional Recycled Water Project

Reclamation and the Service may update the list of Charters based on feedback received on this Draft Work Plan.

## Administration

CVPIA Administration provides for the specific staff to collect funds, submit the overall budgets, coordinate between activities, administer the agreements with the Service, Reclamation and Service Regional management, and review and oversight of expenditures. Table 6 shows the resulting budget.

**Table 6 – CVPIA Fund Administration and Program Management**

<b>Program Area</b>	<b>CVPRF</b>	<b>SIK</b>	<b>WRR</b>	<b>Total</b>
CVPIA Administration	\$2,000,000			\$2,000,000
<b>Total</b>	\$2,000,000			\$2,000,000

\*CVPRF = Central Valley Project Restoration Fund, SIK = State In-Kind, WRR = Water and Related Resources.

## 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 CVPRF, and program-specific reporting and stakeholder coordination requirements.

## Habitat Restoration Program

Reclamation and the U.S. Fish and Wildlife Service manage the 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, California. At the beginning of each annual funding cycle, a Funding Opportunity Announcement (FOA) is posted on [www.grants.gov](http://www.grants.gov) with a solicitation period of approximately 120 days. Table 7 shows the HRP Charters. Historical projects and reports funded by the CVPCP and/or HRP and contact information for more information are available at: <http://www.usbr.gov/mp/cvpcp>.



**Table 7 – Habitat Restoration Program Charters**

Charter	CVPRF	Total
HRP Program Management and Compliance	\$1,134,782	\$1,134,782
HRP Protection, Restoration, & Captive Propagation Projects	\$341,219	\$341,219
<b>Total</b>	<b>\$1,476,001</b>	<b>\$1,476,001</b>

## Ecosystem and Water Operations Modeling Program

The goal of the Ecosystem and Water Systems Operations Models program is to develop readily usable and broadly available models and supporting data in order to 1) evaluate ecologic and hydrologic effects of existing and alternative water management strategies in the Sacramento, San Joaquin, and Trinity River watersheds; 2) improve scientific understanding of ecosystems in the Sacramento, San Joaquin, and Trinity watersheds; and 3) support the Interior Secretary’s efforts in fulfilling the requirements of the CVPIA. The Program manages projects in conjunction with in-kind services from State partners.

**Table 8 – Modeling Program Charters**

Charter	CVPRF
FY17 CVPIA (g) Program Administration and Modeling Project Management	\$368,073
FY17 CalSim Solver License	\$20,085
FY17 CalSim, Fisheries, Temperature Modelling Support	\$50,000
FY17 CalSim, CalLite Temperature Modeling Support	\$50,000
FY17 CalLite GUI Project Extension & Modification	\$50,562
<b>Total</b>	<b>\$538,720</b>

## 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 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 9.

**Table 9 – SJRRP Charter**

Charter	CVPRF
SJRRP - Mendota Pool Bypass and Reach 2B Project	\$2,000,000

\*The SJRRP uses multiple funding disclosed within SJRRP specific materials, not this Work Plan.

## Trinity River Restoration Program

The Trinity River Restoration Program was founded in 2000 based on three comprehensive foundational documents: the Trinity River Flow Evaluation Final Report; the Trinity River Environmental Impact Statement; and the Trinity River Mainstem Fishery Restoration Record of Decision. 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, and instream flow releases, and watershed restoration. Table 10 shows the TRRP Charter.

**Table 10 – TRRP Charters**

Charter	CVPRF	FWSA	WRR	Total
CVP Restoration Fund TRRP Channel Restoration Projects	\$1,500,000			\$1,500,000
WRR Fund TRRP Monitoring Actions			\$4,000,000	\$4,000,000
WRR Funding of ROD Flows			\$7,000,000	\$7,000,000
<b>Total</b>	<b>\$1,500,000</b>		<b>\$11,000,000</b>	<b>\$12,500,000</b>

\*FWSA = Fish and Wildlife Service Appropriations

## Synthesis

Table 11 shows a summary of Restoration Fund planned budgets for Fiscal Year 2017 broken down by legislative provision and agency overseeing the funding.

**Table 11 – Summary of Fiscal Year Restoration Fund Budgets by Legislative Provision and Agency**

Provision	BOR	FWS	Total
(b)(1) AFRP	\$21,887	\$9,845,212	\$9,867,099
(b)(3) Instream Flows	\$0	\$0	\$0
(b)(12) Clear Creek Flows	\$353,698	\$396,767	\$750,465
(b)(12) Clear Creek Restoration	\$3,899,639	\$497,830	\$4,397,469
(b)(13) Gravel	\$3,266,600	\$100,000	\$3,366,600
(b)(16) CAMP	\$183,000	\$2,502,405	\$2,685,405
(b)(21) AFSP	\$413,400	\$1,001,782	\$1,415,182
(d)(1) Refuge Conveyance L2	\$14,899,139	\$785,944	\$15,685,082
(d)(2) Refuge Acquisition IL4	\$6,710,590	\$236,782	\$6,947,372
(d)(2) Refuge Conveyance IL4	\$1,401,579	\$0	\$1,401,579
(d)(5)-(1) Refuge Facility L2	\$606,000	\$0	\$606,000

(d)(5)-(2) Refuge Facility IL4	\$0	\$0	\$0
HRP (b)(1)	\$749,999	\$726,001	\$1,476,001
Modeling (g)	\$511,688	\$27,032	\$538,720
SJRRP (PL111-11)	\$2,000,000	\$0	\$2,000,000
TRRP (b)(1)	\$1,500,000	\$0	\$1,500,000
TRRP (b)(23)	\$0	\$0	\$0
Administration	\$1,756,115	\$243,885	\$2,000,000
<b>Grand Total</b>	<b>\$38,273,334</b>	<b>\$16,363,640</b>	<b>\$54,636,974</b>

Total programmed expenditures fall short of the total President's Budget by approximately \$1 million. Rapid escalation in construction costs, increases in refuge water conveyance costs, and uncertainty in collections due to drought warrant maintaining a small contingency.

## References

*Final Restoration Plan for the Anadromous Fish Restoration Program.* U.S. Fish and Wildlife Service.

1989 Dependable Water Supply Refuge Report.

1989 San Joaquin Basin Action Plan.

2016 Central Valley Project Improvement Act (CVPIA) Fiscal Year 2017 Fish Program Priorities and Call for Annual Work Plan (AWP) Charters.

2016 CVPIA Science Integration Team: FY17 Decision Support Model activities

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## **Appendix A – Description of Charter Information**

**Classification:** Classification of the Charter type according to an overall category and a project type.

**Location:** Reference to a site name (where available) and a watershed.

**Funding Years:** Fiscal years covered by the Charter.

**Benefits Start Year:** When the impacts of the Charter will be realized. Typically a project would become operational following construction, acquisition, or reporting (in the case of a study) phases of an effort.

**Priority:** Ranking of the Charter within a specific to provide an understanding of the relative importance of different efforts.

**Partners:** Listing of agencies and entities assisting in the planning and implementation of the Charter through the contribution of resources. Resources may include cost-share, in-lieu services, use of facilities, or other technical support during the development of a project.

**Related Programs:** List of related programs and activities supported by the Charter such as BDCP, RPA, Recovery Plans, CVJV, etc. to provide an understanding of the relationship between the proposed Charter and other efforts by Federal, State, and local entities.

**Authority:** Provision under the CVPIA supported by the Charter that will allow the government to undertake the action and determine the relevant reimbursement and cost-share requirements.

- **Authority:** One or more legislative provisions for the action and the relative contribution to the different provisions within the legislation.
- **Percentage:** Fraction of the total Charter costs attributable to the Authority.
- **Description:** Justification for why the Charter is allowable under the Authority and for the specific fraction, if applicable.

**Metric(s):** Anticipated accomplishments from successful completion.

**Deliverables:** Anticipated documentation and timeline for key activities under the Charter, typically public documents and reports that would be referenced by title.

- **Date:** The estimated year and month when the deliverable will be available.
- **Title:** The anticipated name or citation of the deliverable.

**Narrative:** A one or two paragraph(s) description of the Charter background, benefits, deliverables, additional information (e.g. cost basis), and changes since prior Charters, if any.

**Data Management:** Information on where reports and data for this Charter will be permanently housed and the relevant protocols for understanding the information.

**Risks:** Narrative or bulleted list of uncertainties and potential project management related issues that might change including, the scope, schedule, or budget.

**Cost Estimate:** Summary of costs by fiscal year and fund. This table is automatically populated by the information in Resources Data.

**Activities and Resources:** Cost estimates to undertake the activity.

- **Type:** Category of resource, e.g. labor, equipment, agreement, etc.
- **Total:** Dollar value of the resource.
- **Agency:** Agency expending the resource.
- **Fund:** Source of the resource.
- **Description:** Text narrative of the activities and basis for the estimate.

