

# 2013 CVPIA Draft Annual Work Plans– Introduction

## **PURPOSE**

This fiscal year (FY) 2013 CVPIA Annual Work Plan (AWP) report summarizes the actions authorized by each Program activity under the Central Valley Project Improvement Act (CVPIA or Act) of 1992 and itemizes planned FY 2013 actions. A new addition for this report are maps of planned projects organized by watershed. Maps include construction and on-the-ground activities specific to a location. Generalized projects that may be utilized CVP-wide are not mapped, but are included in the Program-specific AWP. Additionally, due to the embargoed FY 2014 & 2015 budgets, outyear activities are not included in this report.

## **BACKGROUND**

### **CENTRAL VALLEY PROJECT IMPROVEMENT ACT OF 1992**

In 1992, the 102nd Congress passed, and the President signed, the multi-purpose water legislation known as the CVPIA. Officially designated as Title 34 of Public Law 102-575, this landmark piece of legislation amends previous authorizations of the California Central Valley Project (CVP) to include fish and wildlife protection, restoration, enhancement, and mitigation as project purposes having equal priority with irrigations and domestic water supply uses, and power generation.

The purpose of the CVPIA is expressed in six broad statements found in Section 3402 of the Act:

- To protect, restore, and enhance fish, wildlife, and associated habitats in the Central Valley and Trinity River basins of California;
- To address impacts of the CVP on fish, wildlife, and associated habitats; To improve the CVP's operational flexibility;
- To increase water-related benefits provided by the CVP to the state through expanded use of voluntary water transfers and improved water conservation;
- To contribute to the state's interim and long-term efforts to protect the San Francisco Bay/Sacramento-San Joaquin Delta Estuary;
- To achieve a reasonable balance among competing demands for use of CVP water, including the requirements of fish and wildlife, agricultural, municipal and industrial, and power contractors.

The Secretary of the Department of Interior (Interior) assigned primary responsibility for implementing CVPIA's many provisions to Reclamation and the Service, both agencies of Interior. Reclamation and the Service coordinate with other federal agencies, tribes, the State of California (State), and numerous partners and stakeholders during each fiscal year to plan and implement activities.

## **CVPIA BACKGROUND**

For 75 years, California has depended on the CVP for a large part of its water needs, particularly for agriculture. With a climate typified by extremely variable precipitation, both temporally and regionally, the State relies heavily on dams and reservoirs to balance and manage its water resources, and on an extensive distribution system to convey water supplies for regional needs. Much of the State's water originates in the north and is conveyed southward, primarily through the Sacramento River system. Some water is diverted along the way, with the remainder flowing into the Sacramento-San Joaquin River Delta, where CVP water co-mingles with other supplies such as those of the State Water Project (SWP). A portion of the water entering the delta is pumped south; the majority discharges to the San Francisco Bay and the Pacific Ocean. The CVP today comprises 18 dams and reservoirs (water storage capacity of 9 million acre-feet), 11 power plants, 500 miles of canals and aqueducts, three fish hatcheries, and associated facilities including pumping plants and power lines. The ecosystems of the Central Valley, Delta Estuary, San Francisco Bay, and Trinity River are affected by water diversions—particularly in drought years—so much so that the courts have intervened to ensure that adequate fresh water enters these ecosystems. Compliance with the Endangered Species Act (ESA) and water quality mandates requires water releases from CVP dams to regulate water temperatures, salinity and instream flows, and limits water diversions to protect ESA-listed fish from the effects of pumping water at the Tracy (Jones) Pumping Plant in the Delta. These factors have greatly increased the competition for existing water supplies and have focused scrutiny on the ways that water resources are being used. Environmental conditions have changed greatly since the CVP was authorized in 1935. Population growth and development have increased farm, urban, and industrial water demands. Concurrently, populations of fish and wildlife have declined, resulting in some species being listed as endangered or threatened due to severe habitat loss. In response, a new imperative for resource management and ecological stewardship has evolved.

## **CVPIA GOALS**

The current focus of the CVPIA Program is on fish and wildlife restoration, water management, and conservation activities, authorized in Sections 3406 and 3408 of the Act. These goals fit within four broad resource areas: Fisheries, Water Operations, Refuges and Other Resources. Additional information on the completed projects and how they have contributed to the CVPIA restoration efforts may be found online at <http://www.usbr.gov/mp/cvpia/index.html>.

## **FISHERIES RESOURCE AREA**

### ***Central Valley***

The Act directs Interior to, “implement a program which makes all reasonable efforts to ensure that, by the year 2002, natural production of anadromous fish in Central Valley rivers and streams will be sustainable, on a long-term basis, at levels not less than twice the average levels attained during the period of 1967-1991....” The target established by this portion of the Act is known as the “fish-doubling goal”, which pertains to Chinook salmon, Rainbow trout (steelhead), striped bass, American shad, white sturgeon and green sturgeon; species believed to have been impacted by CVP construction and operation. The 2001 Final Restoration Plan (Plan), which identifies Sections 3406 (b)(1) through (b)(21) as implementation tools, identified 289 actions and evaluations that were determined to be reasonable given numerous technical, legal and implementation considerations. The Plan's actions and evaluations are covered in the October 1999 Central Valley Project Improvement Act Final Programmatic Environmental

Impact Statement. When the Plan's actions are implemented in concert, they provide for comprehensive restoration that improves freshwater habitat for Chinook salmon and other anadromous fish species.

In addition to the anadromous fish "doubling goal", the CVPIA Program uses the suite of structural and non-structural restoration actions from the Plan to measure progress.

### ***San Joaquin River Basin***

The San Joaquin River Restoration Program (SJRRP) carries out activities to restore and maintain fish populations in "good condition" on the mainstem of the San Joaquin River while reducing or avoiding adverse water supply impacts to Friant Division long-term contractors. Specific actions to achieve these goals include reintroduction of spring-run Chinook salmon, restoration flow releases and recirculation of restoration flows back to Friant Division contractors. The SJRRP is being planned and implemented because of the Natural Resources Defense Council, et al., v. Kirk Rodgers, et al. Stipulation of SJRRP Settlement (Settlement). Implementation of the Settlement, including planning, environmental studies and other activities necessary to achieve the Settlement's Restoration and Water Management goals are authorized in the San Joaquin River Restoration Settlement (SJRRP) Act, included in the Omnibus Public Land Management Act of 2009. The Act, which authorizes and directs the Secretary to fully implement the Settlement, was signed by the President on March 30, 2009, and became Public Law 111-11. The Act established the San Joaquin River Restoration Fund (SJRR Fund) and authorizes the use of up to \$2 million a year from the Central Valley Project Restoration Fund under the Section 3406 (c)(1).

While the fisheries sections are currently administered individually, the Science Based Management Framework approach discussed below under Recent Developments aims to coordinate, integrate and prioritize CVPIA efforts across geographic areas.

### ***Trinity River Basin***

The CVPIA includes provisions to authorize activities for the Trinity River Restoration Program (TRRP); Section 3406 (b)(23) for delivering flows and 3406 (b)(1) for river restoration. The Trinity River is the Klamath River's largest tributary and is geographically separate from the Central Valley and the Sacramento River. However, substantial water from the Trinity River has historically been exported through a trans-basin diversion to support water needs in the Central Valley. The goal of the TRRP is to restore and sustain natural production of anadromous fish populations downstream of Lewiston Dam to pre-dam levels, to facilitate dependent tribal, commercial, and sport fisheries' full participation in the benefits of restoration via enhanced harvest opportunities. This will be accomplished through restoring habitats for the anadromous fishery resources by implementing variable annual instream flows, rehabilitating the channel, and managing sediment. The TRRP carries out actions that are stipulated in the Record of Decision (ROD), signed on December 19, 2000, the Trinity River Mainstem Fishery Restoration Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR), completed in October 2000.

## **CVP WATER OPERATIONS RESOURCE AREA**

The CVPIA includes several provisions in Section 3406 (b) that are designed to contribute to the biological resources by supplying optimal project water to resource locations in flow quantity, velocity and timing. Provisions supporting this initiative include Section 3406 (b)(1)(B), Modified CVP Operations; and 3406 (b)(9)/(b)(19), Flow Fluctuations and Reservoir Storage.

## **REFUGES RESOURCES AREA**

The CVPIA includes several provisions in Section 3406 (d) that are designed to contribute to the maintenance, restoration and enhancements of wetlands and waterfowl habitat. The Act directs Interior to: provide, either directly or through contractual agreements with other appropriate parties, firm water supplies of suitable quality to maintain and improve wetland habitat areas on 19 federal, state and private lands, collectively referred to as “refuges.” The Refuge Water Supply Program (RWSP) goal is to provide 555,515 AF of water annually, including 422,251 AF of Level 2 water; 26,007 AF of replacement water; and 133,264 AF of Incremental Level 4 water to the refuges, as required by the Act. Further, the goal is to provide an approach, which includes completing construction of needed conveyance infrastructure and long-term measures, for achieving full Level 4 reliability for all CVPIA designated refuges. Implementation of the RWSP is complimented with the cooperation of refuge agencies and managers.

## **OTHER RESOURCE AREA**

The fourth focus of the CVPIA restoration initiatives is directed at terrestrial habitat and species; and water quality and conservation. Provisions supporting this initiative include the Section 3406 (b)(1) “other” Habitat Restoration Program (HRP), which focuses on protecting native habitats that have been directly and indirectly affected by the CVP’s construction and operation. This is accomplished through the purchase of fee title or conservation easements on lands where threats are significant and restoring lands to native habitat. The HRP contributes to the protection and/or restoration of the 2.7 million acres of habitat affected by the construction and operation of the CVP.

The Land Retirement Program (LRP), Section 3408 (h), goals include the purchase and retirement of land from agricultural production to improve water quality and provide for terrestrial habitat restoration. By ceasing irrigation of agricultural lands, the LRP reduces the volume of agricultural drainage produced, improving water quality and providing the opportunity to restore wildlife habitat. Specifically, the goal of the LRP is to retire 15,000 acres of agricultural lands by 2014 for the Land Retirement Demonstration Project and to restore up to 400 acres of that land annually.

## **FUNDING**

CVPIA fish, wildlife, and improved water management and conservation actions are implemented through a variety of agreements that are held with partners including other federal and State agencies, tribes and local organizations. Reclamation and the Service use interagency agreements, memoranda of understanding, grants and cooperative agreements to partner with entities that have the authority, interest, ability, expertise and/or resources to implement CVPIA restoration actions.

The CVPIA Program utilizes multiple funding sources: CVP Restoration Fund (RF), Water and Related Resources (W&RR), Bay-Delta Fund, and the State of California (State). FY 2013 budget is shown below.

**FY 2013 President's Budget**  
**Central Valley Project Improvement Act**  
**By Action Category and Section**  
*(Dollars in thousands)*

Category		-----FY 2013-----	
Section	Description	RF	W&RR
<b>Anadromous Fish (Structural)</b>			
3406(b)(4)	Tracy Pumping Plant Mitigation Program	\$ -	\$ 1,306
3406(b)(10)	Red Bluff Fish Passage Monitoring/Evaluation	-	942
	Red Bluff Pumping Plant Construction	-	2,000
3406(b)(21)	Anadromous Fish Screen Program	3,200	-
	Total	3,200	4,248
<b>Anadromous Fish (Habitat Modification)</b>			
3406(b)(1)	Anadromous Fish Restoration	5,500	-
3406(b)(2)	Dedicated Project Yield	600	-
3406(b)(3)	Water Acquisition - Instream Flows	2,800	-
3406(b)(12)	Clear Creek Restoration	555	-
3406(b)(13)	Spawning Gravel	903	-
	Total	10,358	-
<b>Refuges and Waterfowl</b>			
3406(d)	Refuge Water Conveyance		
	Facility Construction	700	-
	Refuge Wheeling	8,500	-
3406(b)(3)	Water Acquisition - Incremental Level 4	8,300	-
	Total	17,500	-
<b>Other Fish and Wildlife</b>			
3406(b)(1)	Other CVP Impacts		
	Habitat Protection and Restoration	1,500	-
	Trinity River Restoration	2,000	14,102
3408(h)	Land Retirement	500	50
	Total	4,000	14,152
<b>Studies, Investigations and Models</b>			
3406(b)(9)	Flow Fluctuation Study	50	-
3406(c)(1)	San Joaquin River Basin Resource Mgmt	2,000	-
3406(g)	Eco and Water System Operations Model	600	180
	Total	2,650	180
<b>Monitoring</b>			
3406(b)(16)	Comprehensive Assessment Monitoring Program	1,300	-
	Total	1,300	-
<b>CVPIA Administration</b>			
	CVPIA Administration	875	-
	Total	875	-
<b>Total CVPIA Program</b>		<b>\$ 39,883</b>	<b>\$ 18,580</b>

## RECENT DEVELOPMENTS

Since 1993, the CVPIA Program has steadily progressed in completing specific actions called for by Congress to meet the goals of CVPIA. The Program has also grown in complexity in response to key changes that have affected the operation of Central Valley Project (CVP), vulnerable status of key anadromous fish species, development of a better understanding of species life cycle needs, and the emergence of new scientific tools.

## INDEPENDENT REVIEWS FOR FISHERIES AND REFUGES

### *Fisheries*

In 2007, as part of the Office of Management and Budget (OMB) Program Assessment and Rating Tool (PART) process, the CVPIA Program conducted two independent reviews to evaluate efficiency and effectiveness toward meeting the Act's goals. A Fisheries Independent Review panel assessed the implementation of the Central Valley fisheries activities (i.e. fish doubling). The panel's recommendations can be found in, "Listen to the River – An Independent Report on the CVPIA Fisheries Program" dated December 2008, which calls for a science-based adaptive management approach, increased focus on the Bay-Delta and increased flows for fish. Since the panel's recommendations were released, the fifteen separate authorities that contribute to the "fish doubling" goal have been working together to implement improvements and to develop a fisheries resource area plan. This plan will articulate a reorganization strategy that places an emphasis on managing the fisheries related provisions as one program, rather than as individual program activities. This new structure will enable the program to articulate an overarching vision; utilize a science-based management framework to address problems at a system level; report accomplishments by watershed; and improve transparency by communicating the coordination and decision-making that occurs within the program.

### *Refuges*

In 2008 and 2009, the Refuge Water Supply Program (Refuge WSP) was independently reviewed and the panel's recommendations are presented in a report entitled, "Undelivered Water: Fulfilling the CVPIA Promise to Central Valley Refuges", dated November 3, 2009. The report found that even though the reliability of Level 2 water deliveries improved since 2002, Level 4 water supplies had fallen short of CVPIA mandate and prevented optimal performance of the Refuges. In response to the panel's recommendations, the Refuge WSP has taken several steps: entered into an agreement with the Service and the National Fish and Wildlife Foundation to explore avenues to improve the effectiveness of the water acquisitions, including those for Incremental Level 4; assessed ways to increase the priority for pumping, conveyance and storage of Incremental Level 4 water supplies in CVP facilities; continued planning for external conveyance construction; and investigated storage options in existing or new groundwater banks.

## **SCIENCE BASED MANAGEMENT FRAMEWORK**

The Department of the Interior (DOI) is developing an improved science-based decision making process to update the Implementation Plan and thereby revise and enhance the manner in which the Central Valley Project Improvement Act (CVPIA) is implemented and its performance measured.

To coordinate CVPIA implementation to these other fish protection and restoration efforts, DOI will develop an overarching strategy that accommodates the species' needs under CVPIA using insights gained through the Bay Delta Conservation Plan planning process, Interagency Ecological Program research investigations, and other recovery efforts in the Central Valley. The revised strategy will facilitate future decisions using a scientific framework that connects restoration actions to environmental and population responses across watersheds. The recommendations in the Independent Review of the CVPIA Fisheries Program in the "Listen to the River" report (CVPIA 2008) and the Act's goals in light of the current regulatory and ecosystem conditions will guide the development of the revised strategy.

Specifically, the initial steps include developing the science-based decision process and producing an updated Implementation Plan. Key tasks include (1) revising objectives for the CVPIA, (2) development of system-wide model, (3) development of performance indices and monitoring efforts, and (4) scientific review. This will enable FY 2014 project review to take full advantage of the new process.