

Draft CVPIA Fiscal Year 2011 Annual Work Plan

January 31, 2011

Flow Fluctuation – CVPIA Section 3406(b)(9); and Reservoir Storage – CVPIA Section 3406(b)(19)

Responsible Entities

Staff Name	Agency	Role
Paul Fujitani	USBR	Lead
Nick Hindman	USFWS	Co-Lead

Program Goals and Objectives for FY 2011

1. The program goal is to develop and implement a program to eliminate, to the extent possible, losses of anadromous fish due to flow fluctuations caused by the operation of any Central Valley Project storage or re-regulating facility. There is currently no funding specifically for reservoir storage (b)(19). However, 3406 (b)(2) studies for dedication and management of project yield consider reservoir storage. The source documents for these objectives are noted and their relationship, if any, to the CALFED Program Ecosystem Restoration Program Implementation Plan.

- a. American River- Develop and implement a program to eliminate, to the extent possible, losses of anadromous fish (steelhead and fall-run Chinook salmon) due to flow fluctuations caused by the operation of Nimbus Dam. Have monthly American River Operations Work Group meetings to discuss flow in the rivers and temperature model results.
- b. Stanislaus River- Develop and implement a program to eliminate, to the extent possible, losses of anadromous fish (steelhead and fall-run Chinook salmon) due to flow fluctuations caused by the operation of Goodwin Dam. Have Stanislaus River Group meetings to discuss flow in the rivers and temperature model runs. Evaluate instream flow needs of the Stanislaus River fishery.

Status of the Program

The (b)(9) program was established by the CVPIA in 1992, well before the current suite of Biological Opinion flow requirements and ramping rates were enacted. In it's current form the (b)(9) program helps ensure compliance with the NOAA Biological Opinion (2009), and short-term (b)(9) operations are often implemented that provide even more protections than are mandated by the Opinion.

The American River flow fluctuation study by California Department of Fish and Game (CDFG) on salmon and steelhead in the lower American River (December 11, 2001) is used by fisheries biologists and the American River Operations Group as guidance when discussing flows on the lower American River and water management of Folsom Reservoir.

The Stanislaus River flow fluctuation study was started in 1999 and completed in 2009.

The definition of CVPIA 3406 (b)(19) is to reevaluate existing operational criteria in order to maintain carryover storage at Sacramento and Trinity River reservoirs to protect and restore the anadromous fish of the Sacramento and Trinity Rivers in accordance with the mandates and requirements of this subsection and subject to the Secretary's responsibility to fulfill all project purposes, including agricultural water delivery.

The National Marine Fisheries Service issued its Biological Opinion on the Long-term Operations of the Central Valley Project and the State Water Project on June 4, 2009 (BiOp). The Reasonable and Prudent Alternative in the BiOp contains sets of actions determined by Shasta Reservoir end of September storage. The actions vary for Shasta Reservoir storages over 2,400,000 acre-feet (af), 2,400,000 af to 1,400,000 af, and under 1,900,000 acre-feet. These actions are specified to minimize storage impacts to the anadromous fish from water temperatures, minimum flows, and flow fluctuations.

The 2009 BiOp required Reclamation to establish a Stanislaus Operations Group to provide a forum for real-time operational flexibility implementation of the alternative actions defined in the BiOp. The group will assist to adaptively manage the flow schedule contained in the BiOp and work to minimize flow fluctuations on the Stanislaus River.

FY 2010 Accomplishments

The American River Operations Work Group continued to meet monthly to discuss both the American River operations and to discuss the work to determine threshold flows and ramping rates required to protect Lower American fishery resources.

In 2010 the Stanislaus Operations Group typically held monthly meetings. The group assisted with the implementation of the minimum instream flow requirements and temperature objectives contained in the BiOp. The Stanislaus Operations Group also helped coordinate fish monitoring studies and habitat mapping. The Stanislaus Flow Fluctuation Study was completed by DFG in 2009.

Reclamation coordinated with the Department of Fish and Game, Fish and Wildlife Service, and the National Marine Fisheries Service to develop a fish rescue/salvage plan in October 2008. The monitoring and rescue provisions in the plan were implemented in FY 2010 to increase protection of Central Valley steelhead when the operation of the Reclamation's facilities may result in the stranding or isolation of listed species.

On the American River three isolation pool surveys were conducted in conjunction with the USBR steelhead spawning surveys that occurred from December 15, 2009, through April 20, 2010. No stranded/isolated redds or juveniles were observed.

In addition, biologists conducted a field survey on the American River when flows were reduced on August 4, 2010. They examined 7 sites where potential juvenile steelhead isolation events can occur. No stranded/isolated salmonids were observed during the survey.

As part of an investigation funded by the 3406 (b)(2) Dedicated Yield Program, biologists surveyed salmon and steelhead redds in the fall and winter of 2009-2010 on Clear Creek, the Sacramento River, and the American River. Redd depth, size, water velocity, and location were mapped with GPS coordinates. Existing IFIM models developed by Gard, et.al. will be used to estimate potential redd dewatering events at those sites. This investigation will continue in the fall and winter of 2010-2011. Insights gained from this study will help inform decisions pertaining to flow fluctuations as well as the potential use of (b)(2) dedicated yield.

Table 1. FY 2011 Activities and Costs

AWP Activity Number	Type of Activity	# of FTEs	Activity Name & Description	NMFS OCAP RPA#	Performance Metric	Performance Target	Complete this FY? Y/N	Total Project Cost	FY2011 Anticipated Funding				
									Restoration Fund	Water and Related Resources	State or Other Sources*	Total All Sources	
1.1	Program Management												
1.1.1			Reclamation -The program is managed by Reclamation and the Fish and Wildlife Service. The Program goal is to develop and implement a program to eliminate, to the extent possible, losses of anadromous fish due to flow fluctuations caused by the operations of any Central Valley Project storage or re-regulating facility.	RPA I.2.2, I.2.3, I.2.4, II.1, II.4, III.1.1, III.1.3									
								Subtotal Funding	\$6,000	\$6,000	\$0	\$0	\$6,000
								Reclamation	\$2,200	\$2,200	\$0	\$0	\$2,200
								Service	\$3,800	\$3,800	\$0	\$0	\$3,800
								Other	\$0	\$0	\$0	\$0	\$0
1.3	Technical Support												
1.3.1			CVO-400 manages operations on the Stanislaus River and coordinates with fishery agencies to minimize flow fluctuation impacts to the fishery. . Coordination with USFWS										
1.3.2			CVO-400 manages operations on the American River and coordinates with fishery agencies to minimize flow fluctuation impacts to the fishery. Costs included in 1.3.1 above. Coordination with USFWS										
								Subtotal Funding	\$28,000	\$28,000	\$0	\$0	\$28,000
								Reclamation	\$28,000	\$28,000	\$0	\$0	\$28,000
								Service	\$0	\$0	\$0	\$0	\$0
								Other	\$0	\$0	\$0	\$0	\$0
1.5	Evaluations, Studies, Investigations, Research												
1.5.1			American River and Stanislaus River flow studies and monitoring by Reclamation, DFG, and USFWS for salmon and steelhead. Funds managed by MP-150.		Eliminate possible fish losses due to flow fluctuations (b) (9); maintain minimum carryover storage levels (b) (19)	Target is variable depending on hydrology and biological conditions.	N						
								Subtotal Funding	\$16,000	\$16,000	\$0	\$0	\$16,000
								Reclamation	\$16,000	\$16,000	\$0	\$0	\$16,000
								Service	\$0	\$0	\$0	\$0	\$0
								Other	\$0	\$0	\$0	\$0	\$0

AWP Activity Number	Type of Activity	# of FTE's	Activity Name & Description	NMFS OCAP RPA#	Performance Metric	Performance Target	Complete this FY? Y/N	Total Project Cost	FY2011 Anticipated Funding				
									Restoration Fund	Water and Related Resources	State or Other Sources*	Total All Sources	
1.12	Monitoring												
1.12.1			Ongoing monitoring by DFG and USFWS on both the American and Stanislaus Rivers supporting fishery studies. Costs included in 1.5.1 above		Eliminate possible fish losses due to flow fluctuations (b) (9); maintain minimum carryover storage levels (b) (19)	Target is variable depending on hydrology and biological conditions.	N	\$0	\$0	\$0	\$0	\$0	
								Subtotal Funding	\$0	\$0	\$0	\$0	
								Reclamation	\$0	\$0	\$0	\$0	
								Service	\$0	\$0	\$0	\$0	
								Other	\$0	\$0	\$0	\$0	
1.13	Modeling												
1.13.1			Funding supports temperature modeling efforts on the American River. Modeling by CVO. Costs included in 1.3.1 above.		Eliminate possible fish losses due to flow fluctuations (b) (9); maintain minimum carryover storage levels (b) (19)	Target is variable depending on hydrology and biological conditions.	N	\$0	\$0	\$0	\$0	\$0	
								Subtotal Funding	\$0	\$0	\$0	\$0	
								Reclamation	\$0	\$0	\$0	\$0	
								Service	\$0	\$0	\$0	\$0	
								Other	\$0	\$0	\$0	\$0	
	TOTAL FUNDING								\$50,000	\$50,000	\$0	\$0	\$50,000
	Total Funding Breakdown by Agency:								\$46,200	\$46,200	\$0	\$0	\$46,200
	Reclamation								\$3,800	\$3,800	\$0	\$0	\$3,800
	Service								\$0	\$0	\$0	\$0	\$0
	Other								\$0	\$0	\$0	\$0	\$0

Table 2. FY 2011 Budget Breakout

Task	Agency	FTE	LABOR		CONTRACTS		USBR Only Misc. Costs	Total Costs
			Direct Salary and Benefits Costs ^{1/}	FWS Only Overhead Assess: 22% of Direct Salary and Benefits Costs ^{2/}	Contract, Grant, and Agreement Costs	FWS Only Overhead Assess: 6% Contract Costs ^{2/}		
1.1 Program Management	FWS	0.02	\$3,800	\$0	\$0	\$0		\$3,800
	USBR	0.02	\$2,200		\$0		\$0	\$2,200
1.3 Technical Support	FWS		\$0	\$0	\$0	\$0		\$0
	USBR	0.14	\$28,000		\$0		\$0	\$28,000
1.5 Evaluations, Studies, Investigations, Research	FWS		\$0	\$0	\$0	\$0		\$0
	USBR	0.08	\$16,000		\$0		\$0	\$16,000
1.12 Monitoring	FWS		\$0	\$0	\$0	\$0		\$0
	USBR		\$0		\$0		\$0	\$0
1.13 Modeling	FWS		\$0	\$0	\$0	\$0		\$0
	USBR		\$0		\$0		\$0	\$0
Administrative Total - FWS			\$3,800	\$0		\$0		\$3,800
Contracts, Grants and Agreements Total - FWS					\$0			\$0
FWS Total Costs		0.02	\$3,800	\$0	\$0	\$0		\$3,800
Administrative Total - USBR			\$46,200				\$0	\$46,200
Contracts, Grants and Agreements Total - USBR					\$0			\$0
USBR Total Costs		0.24	\$46,200		\$0		\$0	\$46,200
TOTAL ALL		0.26	\$50,000	\$0	\$0	\$0	\$0	\$50,000

^{1/} For FWS only: The FWS develops a bio-rate which is the combination of both the salary/benefit and related administrative costs. The FWS simple definition reads, "It is an average \$\$ rate that is developed and used for estimating project costs. It incorporates a biologist's salary and benefits, supervisory, clerical and biologist support costs and all other office operating costs related to completing project tasks.

^{2/} FWS assesses an O/H Burden charge of 6% on all contracts/agreements related to budget object codes starting with 25, 41, and 32, and a charge of 22% on costs under all other budget object codes.

Table 3. Three-Year Budget Plan FY 2012-2014
(\$ amounts in thousands)

Year	Description of Activities	Requested RF Funding	Requested W&RR Funding
2012	Flow fluctuation management, temperature management, and fish rescue activities for CVPIA Section 3406(b)(9); and Reservoir Storage – CVPIA Section 3406(b)(19)	\$50	0
2013	Flow fluctuation management, temperature management, and fish rescue activities for CVPIA Section 3406(b)(9); and Reservoir Storage – CVPIA Section 3406(b)(19)	\$51.5	0
2014	Flow fluctuation management, temperature management, and fish rescue activities for CVPIA Section 3406(b)(9); and Reservoir Storage – CVPIA Section 3406(b)(19)	\$53	0

Note: The FY 2012-2014 Budget Plan provides estimates of capability only. The amounts are displayed are those that might be reasonably appropriated each year. These figures do not reflect the future Congressional Appropriations process. All of these estimates will be adjusted annually as RF collections are realized.

Table 4. FY 2011 CVPIA Monitoring Projects

Project Description:	Flow fluctuation – CVPIA 3406(b)(9) and (b)(19)
FY 2010 Project	Ongoing
CVPIA annual work plan subtask number:	1.5.1
Scope of the monitoring effort:	Real time field fish surveys and fish rescue operations in response to reservoir release changes
Product/deliverable:	Minimize fish loss from flow fluctuations
Cost:	\$16,000 (for subtask number 1.5.1 which may be used for other necessary surveys or flow studies as needed)
Questions posed:	Should Reclamation and fishery agencies maintain better documentation about the numbers of fish affected by flow fluctuations and location of problem areas?
Objectives:	To minimize fish loss from flow fluctuations
Results – expected or actual:	Improve documentation to minimize fish loss from flow fluctuations
Data collection methods:	Field surveys performed by biologists
Data management:	Currently, few records exist about the extent of the fish rescue losses. Reclamation will seek to improve data collection and records.
Assessment:	Evaluate location of fish impacts, flow thresholds, a numbers of fish affected.
Use of information in future decision making:	Data will help with planning fish rescue efforts and planning project operations
NMFS OCAP BO RPA	