DRAFT CVPIA Fiscal Year 2012 Annual Work Plan

November 28, 2011

Program Title:

Dedicated Project Yield CVPIA Section (b)(2)

Responsible Entities:

Staff Name	Agency	Role
Roger Guinee	*Service*	*Lead*
Paul Fujitani	*Reclamation*	*Co-Lead*

Program Goals and Objectives for FY 2012

The Department of the Interior (Interior) has the responsibility to dedicate and manage annually 800,000 acre-feet of Central Valley Project (CVP) water (commonly referred to as (b)(2) water) for fish, wildlife, and habitat restoration purposes. In dry and critical years, the shortage criteria specified in the Dept. of Interior May 9, 2003 Decision on Implementation of Section 3406 (b)(2) applies when deliveries to CVP agricultural water service contractors north of the Delta are reduced because of hydrologic circumstances. In dry years the amount of b2 water available may be reduced by up to 100,000 acre-feet, and in critical years the amount of b2 water may be reduced by up to 200,000 acre-feet. At this point in time the hydrology and therefore the (b)(2) allocation in FY 2012 are unknown.

The program objectives are enumerated below. The source documents for these objectives include the CVPIA Programmatic Record of Decision (ROD), Final Restoration Plan for the Anadromous Fish Restoration Program (AFRP), CALFED Programmatic ROD, and Interior's May 9, 2003 Decision on Implementation of Section 3406 (b)(2) of the CVPIA.

a. Improve habitat conditions for anadromous fish in CVP controlled rivers and streams and the Bay-Delta to help meet the AFRP doubling goals
b. Increase survival of out migrant juvenile anadromous fish, especially in the Bay-Delta.
c. Contribute to recovery of listed threatened and endangered fish species, including delta smelt.
d. Assist the State in its efforts to protect the Delta.
e. Monitor and evaluate to assess the effectiveness of (b)(2) measures.

Status of the Program

On May 9, 2003, Interior released a revised Final Decision on Implementation of Section 3406 (b)(2), in response to a ruling by the federal District Court in March, 2002. The revised Final Decision set out a calculation of CVP yield, the method of accounting for use of the dedicated CVP yield, and procedures for management of the yield.

On June 3, 2003 and again on January 23, 2004, the U.S. Court of Appeals for the Ninth Circuit ruled that the District Court erred in concluding that Interior lacks discretion to specify what portion of the 800,000 acre feet is set aside for water quality and Endangered Species Act purposes. Section 3406 (b)(2) provides that the "primary purpose" to which the 800,000 acre feet should be dedicated is the implementation of "fish, wildlife, and habitat restoration purposes authorized by this title…" (i.e., CVPIA). The language of the statute gives Interior discretion to allocate the 800,000 acre feet among fish and wildlife, water quality, and endangered species obligations, as long as Interior's allocation gives effect to the hierarchy of purposes established in Section 3406 (b)(2).

In September 2008, the Federal District Court issued a memorandum opinion in San Luis & Delta Mendota Water Authority v. Department of Interior, 1:97-cv-6140, 1:98-cv-5261 OWW DLB (E.D.Cal. Sept. 19, 2008), concerning Interior's (b)(2) accounting for the 2004 water year[1]. Thus, Interior accounted for fishery actions, including Endangered Species Act (ESA) and water quality control plan (WQCP) actions during the 2011 water year consistent with that opinion, as well as, the Ninth Circuit's decision in Bay Inst. of San Francisco, Interior's 2003 (b)(2) Policy, and 2003 (b)(2) Guidance.

The CALFED Programmatic ROD, signed on August 28, 2000, established an Environmental Water Account (EWA) program whose purpose is to provide protection to the fish of the Bay-Delta estuary. Beginning in water year 2001, the management of the (b)(2) water was closely coordinated with the management of the EWA water. Both (b)(2) and the EWA contribute to the CVPIA's goal of doubling natural production of anadromous fish and provide concurrent benefits to other fish and wildlife, including endangered species. However, it is our understanding that in WY 2012 the EWA will be limited to the acquisition of approximately 60,000 AF of environmental water from the Yuba River pursuant to the Yuba River Accord. Monitoring and evaluation will continue to assess the effectiveness of the (b)(2) environmental measures.

In recent years the (b)(2) program has contributed funding for redd dewatering studies on the

1 In that opinion, Judge Wanger stated that the "primary purpose" of CVPIA Section 3406(b)(2) "includes all those fish and wildlife restoration activities specifically described in section 3406(b)," including "water dedicated to accomplish the anadromous fish doubling goal set forth in section 3406(b)(1)" and "water needed to accomplish any of the other specifically enumerated programs listed in section 3406(b)(2). SLDMWA, at 43 (underline in original). Thus, "if an action taken under the WQCP and/or ESA predominantly contributes to one of the primary purpose programs (e.g., fish doubling), it must be counted toward the 800,000 AF limit." Id. at 48. In so doing, Judge Wanger recognized that there may be some "primacy" to section 3406(b)(1) in relation to other stated purposes of section 3406(b), but he did not rule on that question. Id. at 45.

Sacramento River, Clear Creek, and American River. This effort will continue in FY2012.

The (b)(2) program has also contributed funds to the Vernalis Adaptive Management Program in recent years, but the status of any similar studies in the future is uncertain.

Adaptive Management

The program will continue to manage (b)(2) water based on real-time project operations and fishery needs. As a matter of standard practice we confer with fishery biologists and project operators on a weekly basis in order to determine where and when to apply (b)(2) water. Although a formal adaptive management plan has not been adopted, the (b)(2) program has funded studies to identify the best uses for the (b)(2) water, including ongoing redd dewatering surveys on the Sacramento River, Clear Creek, and the American River. These efforts have already been used to guide management decisions and will further inform us in the future.

Table 1. FY2012 Activities and Costs

	CVPIA Section: 3406 (b)(2)
	CVPIA Program: Dedicated Project Yield

	2012 Requested Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
Total Funding	$0	$0	$800,000	$0	$0	$800,000
Reclamation			$122,250	$0	$0	$122,250
Service			$677,750	$0	$0	$677,750
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other	$0	$0			$0	$0

AWP Activity Number	Type of Activity	# of FTE's	Activity Name & Description	Agency	NMFS OCAP RPA#	Performance Metric	Performance Target	2012 Requested Funding: State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
1.1	**Program Management**												
1.1.1		0.14	Dedicate and manage annually 800,000 acre-feet of CVP water for fish, wildlife, and habitat restoration purposes.	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$29,520	$0	$0	$29,520
1.1.2		0.15	Dedicate and manage annually 800,000 acre-feet of CVP water for fish, wildlife, and habitat restoration purposes.	BOR	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$32,602	$0	$0	$32,602

	Anticipated Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
Subtotal Funding	$0	$0	$62,122	$0	$0	$62,122
Reclamation			$32,602	$0	$0	$32,602
Service			$29,520	$0	$0	$29,520
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other*	$0	$0			$0	$0

*** List other funding source here:** None

	CVPIA Section: 3406 (b)(2)
	CVPIA Program: Dedicated Project Yield

	2012 Requested Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
Total Funding	$0	$0	$800,000	$0	$0	$800,000
Reclamation			$122,250	$0	$0	$122,250
Service			$677,750	$0	$0	$677,750
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other	$0	$0			$0	$0

AWP Activity Number	Type of Activity	# of FTE's	Activity Name & Description	Agency	NMFS OCAP RPA#	Performance Metric	Performance Target	2012 Requested Funding: State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
1.2	**Program Support**												
1.2.1		0.07	b2 Interagency Team meetings. Confer with project operators and biologists to determine when and where b2 water should be used.	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$14,760	$0	$0	$14,760
1.2.2		0.07	b2 Interagency Team meetings. Confer with project operators and biologists to determine when and where b2 water should be used.	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$14,760	$0	$0	$14,760
1.2.3		0.04	FWS budget and finance support - P20	FWS	-	-		$0	$0	$7,900	$0	$0	$7,900
1.2.4		0.05	FWS Region 8 management/administration - PA	FWS	-	-		$0	$0	$10,302	$0	$0	$10,302

	Anticipated Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	State or Other Sources*	Total All Sources
Subtotal Funding	$0	$0	$47,722	$0	$0	$47,722
Reclamation			$0	$0	$0	$0
Service			$47,722	$0	$0	$47,722
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other*	$0	$0			$0	$0

*** List other funding source here:** None

	CVPIA Section: 3406 (b)(2)
	CVPIA Program: Dedicated Project Yield

	2012 Requested Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
Total Funding	$0	$0	$800,000	$0	$0	$800,000
Reclamation			$122,250	$0	$0	$122,250
Service			$677,750	$0	$0	$677,750
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other	$0	$0			$0	$0

AWP Activity Number	Type of Activity	# of FTE's	Activity Name & Description	Agency	NMFS OCAP RPA#	Performance Metric	Performance Target	2012 Requested Funding: State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
1.3	**Technical Support**												
1.3.1		0.17	Coordination and budget prep, develop CVP monthly forecasts, daily accounting	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$36,954	$0	$0	$36,954
1.3.2		0.17	Coordination and budget prep, develop CVP monthly forecasts, daily accounting	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$36,954	$0	$0	$36,954
1.3.3		0.12	develop CVP monthly forecasts, daily accounting	BOR	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$22,412	$0	$0	$22,412
1.3.4		0.12	develop CVP monthly forecasts, daily accounting	BOR	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$22,412	$0	$0	$22,412
1.3.5		0.12	develop CVP monthly forecasts, daily accounting	BOR	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$22,412	$0	$0	$22,412
1.3.6		0.12	Coordination and budget prep, develop CVP monthly forecasts, daily accounting	BOR	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$22,412	$0	$0	$22,412

	Anticipated Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	State or Other Sources*	Total All Sources
Subtotal Funding	$0	$0	$163,556	$0	$0	$163,556
Reclamation			$89,648	$0	$0	$89,648
Service			$73,908	$0	$0	$73,908
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other*	$0	$0			$0	$0

*** List other funding source here:** None

	CVPIA Section: 3406 (b)(2)
	CVPIA Program: Dedicated Project Yield

	2012 Requested Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
Total Funding	$0	$0	$800,000	$0	$0	$800,000
Reclamation			$122,250	$0	$0	$122,250
Service			$677,750	$0	$0	$677,750
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other	$0	$0			$0	$0

AWP Activity Number	Type of Activity	# of FTE's	Activity Name & Description	Agency	NMFS OCAP RPA#	Performance Metric	Performance Target	2012 Requested Funding: State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
1.4	**Restoration Actions**												
1.4.1		0.17	b2 Water is used to improve habitat conditions for anadromous fish in CVP-controlled streams, and the Bay-Delta to help meet AFRP doubling goals.	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$36,954	$0	$0	$36,954
1.4.2		0.17	b2 Water is used to improve habitat conditions for anadromous fish in CVP-controlled streams, and the Bay-Delta to help meet AFRP doubling goals.	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$36,954	$0	$0	$36,954

	Anticipated Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	State or Other Sources*	Total All Sources
Subtotal Funding	$0	$0	$73,908	$0	$0	$73,908
Reclamation			$0	$0	$0	$0
Service			$73,908	$0	$0	$73,908
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other*	$0	$0			$0	$0

*** List other funding source here:** None

	CVPIA Section: 3406 (b)(2)
	CVPIA Program: Dedicated Project Yield

	2012 Requested Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
Total Funding	$0	$0	$800,000	$0	$0	$800,000
Reclamation			$122,250	$0	$0	$122,250
Service			$677,750	$0	$0	$677,750
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other	$0	$0			$0	$0

AWP Activity Number	Type of Activity	# of FTE's	Activity Name & Description	Agency	NMFS OCAP RPA#	Performance Metric	Performance Target	2012 Requested Funding: State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
1.7	**Outreach and Public Involvement**												
1.7.1		0.03	Participate in Calfed Ops Group, American River Group, DOSS group, SRTTG, SOG, WOMT, and multiple modeling groups. We also conduct two or more public presentations each year.	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$7,325	$0	$0	$7,325
1.7.2		0.03	Participate in Calfed Ops Group, American River Group, DOSS group, SRTTG, SOG, WOMT, and multiple modeling groups. We also conduct two or more public presentations each year.	FWS	-	-		$0	$0	$7,325	$0	$0	$7,325

	Anticipated Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	State or Other Sources*	Total All Sources
Subtotal Funding	$0	$0	$14,650	$0	$0	$14,650
Reclamation			$0	$0	$0	$0
Service			$14,650	$0	$0	$14,650
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other*	$0	$0			$0	$0

*** List other funding source here:** None

	CVPIA Section: 3406 (b)(2)
	CVPIA Program: Dedicated Project Yield

	2012 Requested Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
Total Funding	$0	$0	$800,000	$0	$0	$800,000
Reclamation			$122,250	$0	$0	$122,250
Service			$677,750	$0	$0	$677,750
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other	$0	$0			$0	$0

AWP Activity Number	Type of Activity	# of FTE's	Activity Name & Description	Agency	NMFS OCAP RPA#	Performance Metric	Performance Target	2012 Requested Funding: State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
1.12	**Monitoring**												
1.12.1		1.16	San Joaquin River fish monitoring (FWS Stockton, PI and data steward). Target species fall run Chinook outmigrants on the San Joaquin River.	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$275,000	$0	$0	$275,000
1.12.2		0.33	Redd dewatering field work/IFIM analysis on the Sacramento River, Clear Creek, and American River to help inform (b)(2) management actions. Target species fall run Chinook, late fall run Chinook, and steelhead. No partners, no cost share.	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$72,000	$0	$0	$72,000
1.12.3		0.02	Partial funding for Sacramento River juvenile habitat literature analysis.	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$17,353	$0	$0	$17,353

	Anticipated Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	State or Other Sources*	Total All Sources
Subtotal Funding	$0	$0	$364,353	$0	$0	$364,353
Reclamation			$0	$0	$0	$0
Service			$364,353	$0	$0	$364,353
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other*	$0	$0			$0	$0

*** List other funding source here:** None

	CVPIA Section: 3406 (b)(2)
	CVPIA Program: Dedicated Project Yield

	2012 Requested Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
Total Funding	$0	$0	$800,000	$0	$0	$800,000
Reclamation			$122,250	$0	$0	$122,250
Service			$677,750	$0	$0	$677,750
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other	$0	$0			$0	$0

AWP Activity Number	Type of Activity	# of FTE's	Activity Name & Description	Agency	NMFS OCAP RPA#	Performance Metric	Performance Target	2012 Requested Funding: State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
1.13	**Modeling**												
1.13.1		0.27	Hydrologic computer model simulations will be conducted on a monthly basis (CVP forecast model) to assess various (b)(2) implementation scenarios, and CALSIM II and ECOSYM modeling will be done on an as-needed basis.	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$59,039	$0	$0	$59,039

	Anticipated Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	State or Other Sources*	Total All Sources
Subtotal Funding	$0	$0	$59,039	$0	$0	$59,039
Reclamation			$0	$0	$0	$0
Service			$59,039	$0	$0	$59,039
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other*	$0	$0			$0	$0

*** List other funding source here:** None

	CVPIA Section: 3406 (b)(2)
	CVPIA Program: Dedicated Project Yield

	2012 Requested Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
Total Funding	$0	$0	$800,000	$0	$0	$800,000
Reclamation			$122,250	$0	$0	$122,250
Service			$677,750	$0	$0	$677,750
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other	$0	$0			$0	$0

AWP Activity Number	Type of Activity	# of FTE's	Activity Name & Description	Agency	NMFS OCAP RPA#	Performance Metric	Performance Target	2012 Requested Funding: State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
1.15	**Other/Data Management**												
1.15.1		0.02	Prepare information for litigation.	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$4,883	$0	$0	$4,883
1.15.2		0.02	Prepare information for litigation.	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$4,883	$0	$0	$4,883
1.15.3		0.02	Prepare information for litigation.	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$4,884	$0	$0	$4,884

	Anticipated Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	State or Other Sources*	Total All Sources
Subtotal Funding	$0	$0	$14,650	$0	$0	$14,650
Reclamation			$0	$0	$0	$0
Service			$14,650	$0	$0	$14,650
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other*	$0	$0			$0	$0

*** List other funding source here:** None

	CVPIA Section: 3406 (b)(2)
	CVPIA Program: Dedicated Project Yield

	2012 Requested Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
Total Funding	$0	$0	$800,000	$0	$0	$800,000
Reclamation			$122,250	$0	$0	$122,250
Service			$677,750	$0	$0	$677,750
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other	$0	$0			$0	$0

AWP Activity Number	Type of Activity	# of FTE's	Activity Name & Description	Agency	NMFS OCAP RPA#	Performance Metric	Performance Target	2012 Requested Funding: State Cash	State In-Kind	Restoration Fund	Water and Related Resources	Other Sources*	Total All Sources
1.16	**Unfunded Needs**												
1.16.1		0.19	Analysis of historical red Bluff Diversion dam data (FWS Red Bluff)	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$45,000	$0	$0	$20,000
1.16.2		0.09	Analysis of spawning location relative to temperature management on the Sacramento and American Rivers (FWS Sacramento)	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$20,000	$0	$0	$65,000
1.16.3		0.27	Modeling and statistical analysis of Delta Action 8 studies (FWS Stockton)	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$65,000	$0	$0	$20,000
1.16.4		0.09	Develop (b)(2) Decision Matrix (FWS - Sacramento)	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$20,000	$0	$0	$28,000
1.16.5		0.12	Acoustic study of Stanislaus River wild steelhead (FWS Lodi)	FWS	-	b2:Instream Flow, Normal Years (acre-feet)	800,000	$0	$0	$28,000	$0	$0	$0

	Anticipated Funding					
	State Cash	State In-Kind	Restoration Fund	Water and Related Resources	State or Other Sources*	Total All Sources
Subtotal Funding	$0	$0	$178,000	$0	$0	$178,000
Reclamation			$0	$0	$0	$0
Service			$178,000	$0	$0	$178,000
CA DFG	$0	$0			$0	$0
CA DWR	$0	$0			$0	$0
Other*	$0	$0			$0	$0

*** List other funding source here:** None

Table 2. Three-Year Funding Plan FY 2013 – 2015

($ amounts in thousands)

FY Year	Description of Activities	Funding Needs				
		RF	W&RR	Other	DFG	DWR
2013	1.1 Augment existing (b)(2) program for additional staff time for data analysis, modeling, and litigation preparation.	$1,100				
	1.2 Develop New Melones water management guidelines.	$225				
	1.3 Conduct additional monitoring (expanded participation in San Joaquin salmon studies, analysis of salmon spawning timing/location/temperature on Sacramento River, acoustic study Stanislaus wild steelhead).	$482.715				
	1.4 Additional stakeholder involvement, litigation costs, and model evaluations.	$285				
	Total	$2,092.715				
2014	1.1 Augment existing (b)(2) program for additional staff time for data analysis, modeling, and litigation preparation.	$1,100				
	1.2 Develop New Melones water management guidelines.	$225				
	1.3 Conduct additional monitoring (expanded participation in San Joaquin salmon studies, analysis of salmon spawning timing/location/temperature on Sacramento River, acoustic study Stanislaus wild steelhead).	$482.715				
	1.4 Additional stakeholder involvement, litigation costs, and model evaluations.	$285				
	Total	$2,092.715				
2015	1.1 Augment existing (b)(2) program for additional staff time for data analysis, modeling, and litigation preparation.	$1,100				
	1.2 Develop New Melones water management guidelines.	$225				
	1.3 Conduct additional monitoring (expanded participation in San Joaquin salmon studies, analysis of salmon spawning					

	timing/location/temperature on Sacramento River, acoustic study Stanislaus wild steelhead). 1.4 Additional stakeholder involvement, litigation costs, and model evaluations. **Total**	$482.715 $285 $2,092.715				

Note: The FY 2013 – 2015 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 pending appropriations and annual Restoration Fund collections are realized.

Table 3 – Proposed Monitoring Activity	
Project Description:	Participate in acoustic tag studies for San Joaquin Chinook outmigration (tagging, receiver download, coordination, data analysis, report prep) - Pat Brandes FWS Stockton.
FY 2011 Project Complete?	Field work completed successfully. Annual report in prep.
CVPIA annual work plan subtask number:	1.12.1
Scope of the monitoring effort:	San Joaquin River, Delta, export facilities
Product/deliverable:	Digital database, annual report due February 2013
Cost:	$275,000
Questions posed:	Monitor juvenile Chinook salmon outmigration and survival in the San Joaquin River.
Objectives:	Determine salmon route selection and survival rates.
Results – expected or actual:	Digital files, annual report in prep (due February 2012)
Data collection methods:	Salmon smolts implanted with hydroacoustic tags and released in San Joaquin River. Use stationary and mobile receivers to track route selection and estimate survival rates.
Data management:	Digital files and final report documenting results will be archived by Pat Brandes (FWS Stockton)
Assessment:	Continue evaluation of flows, export rates, salmon smolt route selection and survival rates
Use of information in future decision making:	This effort is intended to provide insights regarding flows, export rates, and survival rates of San Joaquin basin salmon. The information may be used to identify the primary mortality factors and help inform management decisions.

Table 3 – Proposed Monitoring Activity	
Project Description:	**Redd dewatering** field surveys, IFIM modeling, and analysis on the Sacramento River, Clear Creek, and American Rivers. Target species are fall run Chinook salmon and steelhead
FY 2011 Project Complete?	Field work incomplete due to high river flows, will continue in 2012.
CVPIA annual work plan subtask number:	**1.12.2**
Scope of the monitoring effort:	Sacramento River, Clear Creek, American River
Product/deliverable:	Digital database, annual report due September 2012
Cost:	$72,000
Questions posed:	Can we use a combination of redd survey data coupled with IFIM modeling to identify potential redd dewatering events?
Objectives:	To inform (b)(2) management decisions on these three streams.
Results – expected or actual:	Digital files, final report September 2012.
Data collection methods:	Redd surveys within pre-existing IFIM sites, IFIM modeling to determine potential dewatering thresholds
Data management:	Digital files and final report documenting results will be archived by Mark Gard (FWS Sacramento)
Assessment:	Continue second year of ongoing field surveys, modeling, and analysis.
Use of information in future decision making:	To inform (b)(2) management decisions on these three streams.

Table 3 – Proposed Monitoring Activity	
Project Description:	Partial funding for Sacramento River juvenile habitat literature analysis.
FY 2011 Project Complete?	New project.
CVPIA annual work plan subtask number:	1.12.3
Scope of the monitoring effort:	Analysis of Sacramento River literature regarding juvenile habitat requirements.
Product/deliverable:	Report.
Cost:	$3,444
Questions posed:	Can the existing fisheries publications identify limiting factors for salmonid rearing in the Sacramento River?
Objectives:	To inform (b)(2) management decisions on the Sacramento River.
Results – expected or actual:	Digital files, final report September 2012.
Data collection methods:	Literature search and analysis.
Data management:	Final report documenting results will be archived by Mark Gard (FWS Sacramento)
Assessment:	New project.
Use of information in future decision making:	To inform (b)(2) management decisions on the Sacramento River