

Draft CVPIA Fiscal Year 2014 Annual Work Plan

May 31, 2013

Program Title:

Anadromous Fish Screen Program – CVPIA Section 3406 (b)(21)

Responsible Entities:

Staff Name	Agency	Role
Dan Meier	USFWS	Lead
Tim Rust	Reclamation	Co-Lead
Dave Zezulak	CDFW	State Partner

The U. S. Fish and Wildlife Service (USFWS) and the Bureau of Reclamation (Reclamation) jointly implement the Anadromous Fish Screen Program (AFSP), with the California Department of Fish and Wildlife (CDFW) acting as the lead state partner. The AFSP implements Section 3406 (b) (21) which directs and authorizes the Secretary of the Interior, in consultation with other State and Federal agencies, Indian tribes, and affected interests, to:

assist the State of California in efforts to develop and implement measures to avoid losses of juvenile anadromous fish resulting from unscreened or inadequately screened diversions on the Sacramento and San Joaquin rivers, their tributaries, the Sacramento-San Joaquin Delta, and the Suisun Marsh. Such measures shall include but shall not be limited to construction of screens on unscreened diversions, rehabilitation of existing screens, replacement of existing non-functioning screens, and relocation of diversions to less fishery-sensitive areas. The Secretary's share of costs associated with activities authorized under this paragraph shall not exceed 50 percent of the total cost of any such activity.

Program Goals and Objectives for FY 2013

The AFSP goals are:

- (A) To assess fish screen benefits and to prioritize diversions for screening.
- (B) To improve fish screen effectiveness and efficiency.
- (C) To coordinate and collaborate with other agencies and entities involved in fish screening.
- (D) To develop and share fish screen information.
- (E) To reduce fish screen project costs.

AFSP objectives are to:

- (A) Provide funding and/or technical assistance for fish screen projects.

- (B) Coordinate with the Anadromous Fish Restoration Program (AFRP) to assess fish screen project priorities in support of the Final Restoration Plan for the AFRP.
- (C) Support and evaluate screen/diversion related research to help determine:
 - The benefits of fish screens.
 - Lower cost options for minimizing fish losses at diversions such as the use of behavioral devices at small diversions rather than more expensive positive barrier screens.
 - Cost-effective fish screen design improvements including ways to reduce fish predation.
- (D) Conduct post-construction monitoring of fish screens

The AFSP's key performance goal is to assist the State of California in developing and implementing measures to avoid juvenile anadromous fish losses resulting from unscreened or inadequately screened diversions on the Sacramento and San Joaquin rivers, their tributaries, the Delta, and the Suisun Marsh. This goal is measured in the number of fish screens constructed, and the amount of water screened (in cfs), with a target of screening the priority unscreened diversions on prescribed streams. In this effort, the AFSP is also closely coordinating with the AFRP to identify the priority diversions to be screened consistent with the required fish screen actions identified in the AFRP Final Restoration Plan.

The AFSP provides up to 50% of a fish screen project's cost, pursuant to CVPIA Section 3406(b)(21). The remaining amount (50% or greater) must be from state and/or local contributions. In past years, the State of California through the Ecosystem Restoration Program (ERP) has provided the majority of non-federal cost-share funds for AFSP fish screen projects.

The AFSP "Program Description" (January 1999) outlines the AFSP's purpose, scope, organization, and prioritization guidelines. The guidelines for prioritizing AFSP funded projects include consideration of biological benefits; size and location of the diversion; project cost; and cost-share funding availability. In addition, the AFSP's "Guidelines for Developing Post-Construction Evaluation & Assessment Plans, and Operation & Maintenance Plans" (March 1999) provides guidance for: a) developing and implementing a study plan for fish screen post-construction hydraulic evaluations, and b) developing a fish screen operations and maintenance plan.

Status of the Program

Since 1994, the AFSP has screened 37 high priority diversions ranging from 11 cubic feet/second (cfs) up to 960 cfs. Cumulatively, the AFSP has screened over 5,400 cfs in the Central Valley of California and the Sacramento-San Joaquin Delta. The AFSP is providing technical assistance (feasibility, design, environmental, and/or permitting) to several ongoing large fish screen projects. These fish screen projects include Reclamation District 2035 (400 cfs), Natomas Mutual Water Company (Phase 2A, 160 cfs), Meridian Farms Water Company (Phase 2) (135 cfs) and West Stanislaus Irrigation District (347 cfs).

The AFSP provides assistance with fish screens to agricultural and M&I water diverters through two primary means. First, the AFSP Technical Team, comprised of federal and state agencies' experts, provides fish screen design review and technical guidance to the diverters and their consultants throughout a project. The AFSP may also provide funding support to diverters to install fish screens on their diversions. The diverter is the owner of the constructed facilities and is solely responsible for the operation and maintenance of the fish screen.

Adaptive Management

The AFSP has been using adaptive management to assess the need for additional fish screening on the Sacramento River. The larger diversions over 150 cfs in size on the mainstem Sacramento River have already been screened or are currently proposed for screening. However, there are many small and moderate sized unscreened diversions (up to 150 cfs) on the Sacramento River. Since there was a general lack of data on the potential effects of these diversions on existing fish populations, the AFSP and ERP initiated an effort in 2009 to screen 12 diversions (ranging from 9 to 128 cfs) on the Sacramento River over a four year period, while obtaining critical fish entrainment monitoring data at each diversion site.

Pre-project fish entrainment monitoring data was collected at each diversion site for two diversion seasons (typically April through September each year) prior to fish screen installation. The fish screens were installed after the fish entrainment monitoring was completed. At the end of 2012, fish entrainment monitoring had been completed at all 12 diversion sites and fish screens installed at 9 of the diversion sites. The remaining 3 fish screens will be installed in 2013.

This information will lead to a better understanding of fish screen benefits, and help prioritize diversions for future screening. The fish entrainment monitoring results collected in 2009 through 2012 are being analyzed and a final fish entrainment monitoring report will be issued in 2013.

Table 1. FY2014 Proposed Activities and Costs

CVPIA Section 3406 (b)(21), Anadromous Fish Screen Program

	3406 (b)(21) Requested Funding for Fiscal Year 2014				
	Restoration Fund	Water and Related Resources	State Cash	State In-Kind	Total All Sources
Total Funding	\$5,070,000	\$0	\$0	\$0	\$5,070,000
Reclamation	\$4,715,442	\$0		\$0	\$4,715,442
Service	\$354,558	\$0	\$0	\$0	\$354,558
CA DFG		\$0	\$0	\$0	\$0
CA DWR	\$0	\$0	\$0	\$0	\$0

1.1		Program Management				3406 (b)(21) Requested Funding for Fiscal Year 2014					
AWP Activity Number	Activity Name	Activity Description	Agency		Program Performance Goal	FY2014 Projected Performance	Restoration Fund	Water and Related Resources	State Cash	State In-Kind	Total All Sources
			Name	Fractional FTE							
1.1.1	FWS Program Management	Provides leadership and overall management of the Anadromous Fish Screen Program (AFSP), including development of the Annual Work Plan and oversight of the AFSP Technical Team. (FRFR48330832SP0)	FWS	1.00			\$223,038				\$223,038
1.1.2	BOR Program Management	Co-Manages the AFSP including oversight of program budget, contracts and environmental compliance. (H30-0214-2040-000-00-0-0)	BOR	0.40			\$79,071				\$79,071
							Sub-Total for Program Management, FY2014				
							Restoration Fund	Water and Related Resources	State Cash	State In-Kind	Total All Sources
Subtotal Funding							\$302,109	\$0	\$0	\$0	\$302,109
Reclamation							\$79,071	\$0			\$79,071
Service							\$223,038	\$0			\$223,038
CA DFG									\$0	\$0	\$0
CA DWR									\$0	\$0	\$0

1.2 Program Support												
AWP Activity Number	Activity Name	Activity Description	Agency		Program Performance Goal	FY2014 Projected Performance	3406 (b)(21) Requested Funding for Fiscal Year 2014					
			Name	Fractional FTE			Restoration Fund	Water and Related Resources	State Cash	State In-Kind	Total All Sources	
1.2.1	Program Coordination and Support	Provides day-to-day program coordination and support including program budget and contracting activities. (H30-0214-2040-000-00-0)	BOR	1.00			\$152,608				\$152,608	
1.2.2	Management Oversight	Provides division management oversight of program activities. (H30-0214-2040-000-00-0)	BOR	0.20			\$39,129				\$39,129	
1.2.3	Administrative Support	Provides division administrative support for program activities. (H30-0214-2040-000-00-0)	BOR	0.20			\$24,521				\$24,521	
1.2.4	Management Oversight	Provides division oversight of program activities. (FRFR48330832SP0)	FWS	0.25			\$55,760				\$55,760	
1.2.5	Administrative Support	Provides division administrative support for program activities. (FRFR48330832SP0)	FWS	0.25			\$55,760				\$55,760	
							Sub-Total for Program Support, FY2014					
							Restoration Fund	Water and Related Resources	State Cash	State In-Kind	Total All Sources	
							<i>Subtotal Funding</i>	\$327,778	\$0	\$0	\$0	\$327,778
							<i>Reclamation Service</i>	\$216,258	\$0			\$216,258
							<i>CA DFG</i>	\$111,520	\$0			\$111,520
							<i>CA DWR</i>			\$0	\$0	\$0
									\$0	\$0	\$0	

1.3		Technical Support										
AWP Activity Number	Activity Name	Activity Description	Agency		Program Performance Goal	FY2014 Projected Performance	3406 (b)(21) Requested Funding for Fiscal Year 2014					
			Name	Fractional FTE			Restoration Fund	Water and Related Resources	State Cash	State In-Kind	Total All Sources	
1.3.1	NMFS Technical Support	Provides NMFS technical and engineering support for AFSP activities in FY 2014 including: review of fish screen project feasibility, design and construction activities; performing necessary field work for pre-construction site evaluations, construction inspections, and post-construction hydraulic evaluations. In FY 2014, NMFS staff will provide 0.75 FTE to support the AFSP under this AFSP work plan, and 0.25 to support the Anadromous Fish Restoration Program (AFRP) under the AFRP work plan. Work to be performed by NMFS Santa Rosa Office staff with an interagency funding agreement managed by BOR Regional. (H30-0214-2040-000-00-0-0)	BOR	0.00			\$168,669				\$168,669	
1.3.2	Environmental Compliance Services	Provides primary program support for NEPA and ESA compliance, and permitting. (H30-0214-2040-000-00-0-0)	BOR	0.70			\$116,944				\$116,944	
1.3.3	Engineering Services	Provides primary BOR engineering services. (H30-0214-2040-000-00-0-0)	BOR	0.30			\$54,505				\$54,505	
1.3.4	Environmental Compliance & Cultural Support	Provides primary support for cultural resources, and additional support for NEPA and ESA compliance. (H30-0214-2040-000-00-0-0)	BOR	0.25			\$20,000				\$20,000	
1.3.5	Engineering Support	Provides additional BOR engineering support. (H30-0214-2040-000-00-0-0)	BOR	0.04			\$3,000				\$3,000	
1.3.6	Public Information Services	Provides public information distribution and project noticing. (H30-0214-2040-000-00-0-0)	BOR	0.02			\$2,000				\$2,000	
1.3.7	Acquisition Services	Provides primary acquisition services pertaining to fish screen projects. (H30-0214-2040-000-00-0-0)	BOR	0.27			\$20,000				\$20,000	
1.3.8	Environmental Compliance & Research Support	Provides program support for NEPA and ESA compliance and permitting, and technical support for fish screen hydraulic evaluations. (FRFR48330832SP0)	FWS	0.09			\$20,000				\$20,000	
							Sub-Total for Technical Support, FY2014					
							Restoration Fund	Water and Related Resources	State Cash	State In-Kind	Total All Sources	
							<i>Subtotal Funding</i>	\$405,118	\$0	\$0	\$0	\$405,118
							<i>Reclamation Service</i>	\$385,118	\$0			\$385,118
							<i>CA DFG</i>	\$20,000	\$0			\$20,000
							<i>CA DWR</i>			\$0	\$0	\$0
									\$0	\$0		\$0

2.5		Design			3406 (b)(21) Requested Funding for Fiscal Year 2014							
AWP Activity Number	Activity Name	Activity Description	Agency		Program Performance Goal	FY2014 Projected Performance	Restoration Fund	Water and Related Resources	State Cash	State In-Kind	Total All Sources	
			Name	Fractional FTE								
2.5.1	DEC Review	A Design, Estimating , and Construction (DEC) review by BOR of the West Stanislaus Fish Screen Project to assess whether products related to design, cost estimating, and construction are technically sound, if cost estimates are appropriate for their intended purpose, to identify potential fatal flaws in the designs and determine whether major risk and uncertainties have been fully addressed in the cost estimates. (H30-0214-2040-000-00-0-0)	BOR	0.00			\$100,000				\$100,000	
							Sub-Total for Design, FY2014					
							Restoration Fund	Water and Related Resources	State Cash	State In-Kind	Total All Sources	
							<i>Subtotal Funding</i>	\$100,000	\$0	\$0	\$0	\$100,000
							<i>Reclamation Service</i>	\$100,000	\$0			\$100,000
							<i>CA DFG</i>	\$0		\$0	\$0	\$0
							<i>CA DWR</i>			\$0	\$0	\$0

2.7		Construction/Implementation			3406 (b)(21) Requested Funding for Fiscal Year 2014							
AWP Activity Number	Activity Name	Activity Description	Agency		Program Performance Goal	FY2014 Projected Performance	Restoration Fund	Water and Related Resources	State Cash	State In-Kind	Total All Sources	
			Name	Fractional FTE								
2.7.1	RD 2035/ WDWA Joint Intake and Fish Screen	Construct a fish screen at an existing 400 cfs diversion owned by RD 2035. The intake would also accommodate RD 2035/ Woodland Davis Clean Water Agency (WDCWA) pumping facilities to be separately funded by the WDCWA. Work to be performed by RD 2035 and subcontractors. (H30-0214-2040-000-00-0-0)	BOR	0.00	Assist CA in screening unscreened diversions	Funding towards project construction.	\$1,989,995				\$1,989,995	
2.7.2	Pritchard Lk Fish Screen	(Natomas Mutual Phase 2A)Construct a 160 cfs fish screen at the Pritchard Lk diversion. Work to be performed by Natomas Mutual and subcontractors.(H30-0214-2040-000-00-0-0)	BOR	0.00	Assist CA in screening unscreened diversions	Funding towards project construction.	\$1,945,000				\$1,945,000	
							Sub-Total for Construction/Implementation, FY2014					
							Restoration Fund	Water and Related Resources	State Cash	State In-Kind	Total All Sources	
							<i>Subtotal Funding</i>	\$3,934,995	\$0	\$0	\$0	\$3,934,995
							<i>Reclamation Service</i>	\$3,934,995	\$0			\$3,934,995
							<i>CA DFG</i>	\$0	\$0			\$0
							<i>CA DWR</i>			\$0	\$0	\$0

Outyear activities are estimates of funding capability only and do not reflect the future Congressional Appropriations process.

Table 2. FY2015 Proposed Activities and Costs

CVPIA Section 3406 (b)(21), Anadromous Fish Screen Program

	3406 (b)(21) Requested Funding For Fiscal Year 2015			
	Restoration Fund	Water and Related Resources	State Cash	Total All Sources
Total	\$5,000,000	\$0	\$0	\$5,000,000
US Bureau of Reclamation	\$5,000,000	\$0		\$5,000,000
US Fish and Wildlife Service	\$0	\$0		\$0
California Dept of Fish and Wildlife			\$0	\$0
California Dept of Water Resources			\$0	\$0

Task	Project Name	Project Description	Federal Costs(\$)				State Cost Share (\$)		Total Costs (\$)
			BOR Restoration Fund	BOR W&RR Fund	FWS Restoration Fund	FWS W&RR Fund	CA DFW	CA DWR	
Program Mgmt & Support			\$998,810						\$998,810
Project 1	Central Valley Fish Screens	Construction of Central Valley Fish Screens. Project selection for construction funding will be dependent on a current assessment project costs and benefits, and availability of matching cost share funding (must be at least 50%).	\$4,001,190						\$4,001,190

Outyear activities are estimates of funding capability only and do not reflect the future Congressional Appropriations process.

Table 2. FY2016 Proposed Activities and Costs
 CVPIA Section 3406 (b)(21), Anadromous Fish Screen Program

			3406 (b)(21) Requested Funding For Fiscal Year 2016						
			Restoration Fund	Water and Related Resources	State Cash	Total All Sources			
Total			\$3,000,000	\$0	\$0	\$3,000,000			
US Bureau of Reclamation			\$3,000,000	\$0		\$3,000,000			
US Fish and Wildlife Service			\$0	\$0		\$0			
California Dept of Fish and Wildlife					\$0	\$0			
California Dept of Water Resources					\$0	\$0			
			Federal Costs(\$)				State Cost Share (\$)		Total Costs (\$)
Task	Project Name	Project Description	BOR Restoration Fund	BOR W&RR Fund	FWS Restoration Fund	FWS W&RR Fund	CA DFW	CA DWR	Total Costs (\$)
Program Mgmt & Support			\$1,018,790						\$1,018,790
Project 1	Central Valley Fish Screens	Construction of Central Valley Fish Screens. Project selection for construction funding will be dependent on a current assessment of project costs and benefits, and availability of matching cost share funding (must be at least 50%).	\$1,981,210						\$1,981,210