CVPIA Fiscal Year 2008 Annual Work Plan

November 2, 2007

Program Title

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

Responsible Entities

Staff Name	Agency	Role
Dan Meier	FWS	Lead
Tracy Slavin	Reclamation	Co-Lead

Program Goals and Objectives for FY 2008

The Anadromous Fish Screen Program (AFSP) has been developed and implemented to protect juvenile Chinook salmon, steelhead trout, and green and white sturgeon from entrainment at priority diversions throughout the Central Valley and Delta. Currently, there are approximately 750 unscreened agricultural diversions in the Sacramento River system, 950 in the San Joaquin River system, 2,500 in the Sacramento-San Joaquin Delta, and 360 in the Suisun Marsh basin. The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) has estimated that up to 10,000,000 anadromous salmonid fish fry are lost annually to diversions from the Sacramento River alone.

The AFSP Program Description (January 1999) outlines the AFSP program purpose, scope, organization, and prioritization guidelines for the AFSP. The guidelines for prioritizing projects include consideration of biological benefits, size and location of the diversion, project cost, and availability of cost-share funding. In addition, current AFSP fish screening project priorities are coordinated with CALFED to support of the goals and objectives of CALFED's Ecosystem Restoration Program (ERP).

Section 3406(b)(21) of the Central Valley Project Improvement Act (CVPIA) requires the Secretary of the Interior to assist the State of California in developing and implementing 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 Delta, and Suisun Marsh. All AFSP projects also contribute to the primary goal stated in the Anadromous Fish Restoration Plan (AFRP), as defined under Section 3406(b)(1) of CVPIA, which requires the

Department of the Interior to make all reasonable efforts to double natural production of anadromous fish in Central Valley streams.AFSP fish screen projects are consistent with Goal 3 of the CALFED ERP Draft Stage 1 Implementation Plan (8/1/01, Page 22) "to maintain and/or enhance populations of selected species for sustainable commercial and recreational harvest, consistent with the other ERP Strategic Goals". By protecting fish from entrainment, the AFSP enhances anadromous fish out-migrant success, thereby enhancing the commercial and recreational harvest of these species. The AFSP is currently coordinating with CALFED as it develops an ERP Draft Stage 2 Implementation Plan.

A key objective of AFSP in support of its efforts to enhance anadromous fisheries, is to obtain fish loss monitoring data at unscreened diversions. This information will be used to assess the potential benefits of fish screening and to help prioritize which unscreened diversions should be screened. This effort also supports the CALFED ERP Draft Stage 1 Implementation Plan (page 61) objective to: "… conduct studies to improve knowledge of implications of fish screens for fish populations."

In past years the CALFED ERP Program has provided the majority of non-federal cost-share funds for the AFSP fish screen project participants. The CALFED funds contribute to the required 50 percent minimum non-federal cost share for AFSP funded fish screen projects. Pursuant to Section 3406(b)(21) of CVPIA, the AFSP can only provide up to 50% of the cost share of a fish screen project. Representatives of the CALFED ERP have recently indicated that future CALFED funding for fish screens will be reduced from historical levels. In the near term, CALFED is focusing its fish screen related efforts on planning, and support for obtaining monitoring data at unscreened diversions.

Status of the Program

Since 1994, the AFSP has assisted irrigation districts and water companies with fish screening at 23 diversions ranging from 17 cubic feet/second (cfs) up to 960 cfs. Cumulatively, the AFSP has cost shared on fish screen projects resulting in the screening of over 4,200 cfs.

The AFSP provides assistance to diverters through two primary means. First, the AFSP, comprised of experts from federal and State agencies, provides fish screen design review and technical guidance to the diverter and their consultants throughout a project. The AFSP may also provide funding support to diverters to install fish screens on their diversions.

The AFSP has provided significant funding and technical resources that are essential in implementing fish screen projects. Lack of adequate funding is often an impediment to diverters in constructing a fish screen for their unscreened diversion(s). Fish screen projects are typically complex projects that are constructed

in phases over several years. The key project phases are a feasibility study, preliminary design, final design, and construction. There are also significant permitting and environmental compliance requirements that must be met. Upon completion of the project, the diverter becomes the owner of the constructed facilities and is solely responsible for the operation and maintenance of the fish screen.

The AFSP is currently providing technical assistance (design, environmental, and permitting) for several large fish screen projects which have not yet secured needed construction funding from federal and non-federal funding sources. These fish screen projects include Natomas Mutual, Meridian Farms, Pleasant Grove-Verona, Patterson Irrigation and RD 2035. The AFSP has indicated to these project applicants that additional construction funding from AFSP may not be available, and that any federal funding, would be contingent on the applicant securing matching non-federal cost share funding. Meridian Farms is currently proposing to construct Phase I of their fish screen project (Grimes fish screen), once they have completed environmental documentation and permitting requirements. Federal funding for Meridian's Phase I project is available, contingent on completion of a funding agreement with California Department of Fish and Game (DFG)to provide non-federal cost share funding.

A 300 cfs fish screen and combined pumping plant is currently being constructed at RD 108 and is expected to be operational in spring 2008. AFSP is providing oversight of construction activities and will oversee implementation of post-construction evaluations and assessments.

A key objective of the of AFSP as reflected in the 2008 work plan is to obtain fish loss monitoring data for the purpose of better prioritizing fish screening efforts. A cost share funding agreement for the first year of this effort will be funded by CALFED ERP (through California DFG), and additional cost share funding is proposed in the future as reflected in CALFED ERP's Multi-year Program Plan for 2009 and 2010.

FY 2007 Accomplishments

Accomplishments in FY 2007 included the following:

1. Completed construction of the Sutter Mutual Water Company (SMWC) Tisdale Positive Barrier Fish Screen project in Sutter County, designed to screen a 960 cfs diversion on the Sacramento River. This project resulted in screening the largest unscreened diversion on the Sacramento River. This fish screen project protects out-migrating spring, fall, and winter-run Chinook salmon and Central

Valley steelhead as well as resident game and non-game fish from entrainment.

2. Continued construction of the RD 108 Fish Screen project to screen three diversions at a new consolidated 300 cfs diversion on the Sacramento River in Sutter County.

3. Completed a federal funding agreement to initiate a three year screening and monitoring program in partnership with the Family Water Alliance. This program includes collection of fish loss data prior to installation of fish screens, in order to assess the biological benefits of fish screening and to help prioritize future fish screening efforts.

4. In 2007, the AFSP initiated fish loss monitoring at 4 existing unscreened diversions.

5. In 2007, the AFSP continued support of a literature search and data analysis of fisheries losses at unscreened diversions within California and the Pacific Northwest. This effort will be completed in 2008. The results of the literature search will be used, in conjunction with field monitoring results, to develop AFSP fish screen priorities.

6. Continued to support fish screen design, environmental compliance and permitting activities for the Natomas Mutual Water Company Fish Screen consolidation project located in Sacramento County. This project would consolidate five diversions totaling 630 cfs into two screened diversions on the Sacramento River.

7. Continued to support fish screen design, environmental compliance and permitting activities for the Meridian Farms Water Company Fish Screen consolidation project in Sutter County for three existing diversions totaling 165 cfs on the Sacramento River. Partial construction funding was provided in 2007.

8. Continued to support fish screen environmental compliance activities for the Reclamation District 2035 Fish Screen project located north of the City of Sacramento to screen a 400 cfs diversion on the Sacramento River.

9. Continued to support fish screen design, environmental compliance and permitting activities for the Patterson Irrigation District Fish Screen to screen a 190 cfs diversion on the San Joaquin River.

10. Continued to support fish screen design, environmental compliance and permitting activities for the City of Yuba City Fish Screen project in Yuba County for a 61 cfs municipal diversion on the Feather River. Partial construction funding was provided in 2007.

11. Funding was provided to Yuba County Water Agency to complete a fish screen feasibility study for a south diversion at Daguerre Point Dam on the Yuba River.

FY 2008 Tasks, Costs, Schedules and Deliverables

Task or Subtask Number	Name of Activity	FTE's	Description of Activity	Completion Date	Total Cost	Funding Source RF	Funding Source WRR
1.1	**Program Management**						
1.1.1		**1**	U.S. Fish and Wildlife Service; Provides leadership and overall management of the Anadromous fish Screen Program (AFSP), including oversight of the AFSP Technical Team and Fish Screen Evaluation Committee.		$194,250	$194,250	$0
	Subtotal Costs				$194,250	$194,250	$0
1.2	**Program Support**	**1.45**					
1.2.1		0.2	Reclamation, MP-400; Co-manages AFSP including oversight of program budget, contracts and environmental compliance.		$45,405	$45,405	$0
1.2.2		1	Reclamation, MP-400; Provides overall program coordination including day-to-day implementation of program budget and contracts.		$152,245	$152,245	$0
1.23		0.25	U.S. Fish and Wildlife Service, Provides management oversight of program activities.		$48,562	$48,562	$0
	Subtotal Costs				$246,212	$246,212	$0
1.3	**Technical Support**	**3**					
1.3.1		1	National Marine Fisheries Service (NMFS); Provides engineering and environmental support for review and oversight of fish screen projects. Includes representing NMFS on the AFSP Technical Team, performing necessary field and technical work involving pre-construction site evaluation, construction oversight for contract compliance and quality control, performance tests, and post-construction evaluation of the facility, including review of operation and maintenance plans submitted by the diverter, and to set up short-term monitoring for screen approval and long-term inspection methodology. Participate in an AFSP Fish Screen Evaluation Committee.		$171,000	$171,000	$0

Task or Subtask Number	Name of Activity	FTE's	Description of Activity	Completion Date	Total Cost	Funding Source RF	Funding Source WRR
		0.25	Reclamation, MP-400, Provides engineering support and review for design and construction of fish screen projects.		$40,000	$40,000	$0
1.3.2		0.5	Reclamation, MP-400; Provides environmental compliance support for fish screen projects.		$53,472	$53,472	$0
1.3.3		0.5	Reclamation, MP-400; Provides environmental compliance support for fish screen projects.		$96,766	$96,766	$0
1.3.4		0.125	MP-150 (Nepstad, Eckart, Kleinsmith); Provides environmental compliance support for fish screen projects.		$15,000	$15,000	$0
1.3.5		0.125	MP-3800 (Contracting); Provides contracting support for fish screen projects.		$16,000	$16,000	$0
1.3.6		0.5	FWS, 0.5 FTE, Provides program management and environmental compliance support.		$97,125	$97,125	$0
	Subtotal Costs				$489,363	$489,363	$0
1.4	**Restoration Actions**						
1.4.1			**Family Water Alliance (FWA) Fish Screening Program**; Provides cost-share funding to the FWA as part of a 3-year program to construct cost effective fish screens on unscreened diversions in the Sacramento River watershed and Sacramento-San Joaquin Delta. This proposal includes collection of fish loss data, prior to installation of fish screens, to assess the biological benefits of fish screening and to help prioritize future fish screening efforts. Work performed by FWA and subcontractors with funding agreement managed by BOR regional. [Supports Evaluation E12 (Sacramento-San Joaquin Delta) of the AFRP Plan]		$2,900,000	$2,900,000	$0
1.4.2			**Yuba City Fish Screen**; Provides cost-share funding for a fish screen on a replacement diversion that Yuba City has on the Feather River just upstream of the confluence with the Yuba River. Work performed by Yuba City and subcontractors with funding agreement managed by BOR regional. [Supports Action A6 (Mainstem Sacramento River) of the AFRP Plan]		$150,000	$150,000	$0

Task or Subtask Number	Name of Activity	FTE's	Description of Activity	Completion Date	Total Cost	Funding Source RF	Funding Source WRR
1.4.3			**Natomas/Meridian/Patterson or Other Fish Screens**; Provides partial cost-share funding for one or more fish screens. Determination of which fish screen project(s) to fund will be made on the most currently available information. Factors to be considered could include: availability of non-federal cost share funding, ability to support efficient implementation of on-going projects, and ability to achieve fishery benefits as quickly as possible and in a cost efficient manner. Work performed by water district and any subcontractors with funding agreement managed by BOR regional. [Supports Action A3 (Mainstem San Joaquin River) and A6 (Mainstem Sacramento River) of AFRP Plan]		$452,175	$452,175	$0
	Subtotal Costs				3,502,175	3,502,175	$0
1.12	**Monitoring**						
1.12.1			Pre-construction monitoring of unscreened diversions would be funded under Restoration Action 1.4.1.				
	Total Costs				**$4,432,000**	**4,432,000**	**$0**
	Service total funding				$339,937	$339,937	$0
	Reclamation total funding				$4,092,063	4,092,063	$0

CVPIA Program Budget

Task	Agency	FTE	Direct Salary and Benefits Costs	Contract and Grant Costs	Misc. Costs	Admin Costs	Total Costs
1.1 Program Management	FWS	1	$151,515			$42,735	$194,250
	BOR						
1.2 Program Support	FWS		$37,869			$10,683	$48,562
	BOR	1.2	$85,760			$111,890	$197,650
1.3 Technical Support	FWS	0.5				$21,367	$97,125
	BOR	1.5	$136,830			$84,408.00	$221,238
	NMFS	1	$171,000				$171,000
1.4 Restoration Actions	FWS						
	BOR			$3,502,175			$3,502,175
FWS Total Costs							$339,937
BOR Total Costs							$4,092,063
Total							$4,432,000

Five Year Budget Plan

DRAFT CVPIA 5-Year Budget Plan FY 2009 – 2013

(in thousands)

Funding Source	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total
W&RR						
RF	5,200	5,200	5,200	5,200	5,200	26
State						
Other (identify)	5,200	5,200	5,200	5,200	5,200	26
Total	10,400	10,400	10,400	10,400	10,400	52

Note: The FY 2007 – 2013 Budget Plan provides estimates of capability only. The W&RR Appropriations are displayed as amounts 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.

Program capabilities as stated in Table E are those funds that could be expended on an annual basis for Natomas Mutual Water Company, Meridian Farms Water Company, Reclamation District 2035, Patterson Irrigation District, Pleasant Grove Verona Water Company or other

identified fish screen projects. Determination of which fish screen project(s) to fund annually will be made based on the most currently available information. Factors to be considered may include: availability of non-federal cost share funding, biological benefits, ability to support efficient implementation of on-going project activities, and ability to provide fishery benefits as quickly as possible and in a cost efficient manner.

These estimates reflect anticipated and/or desired construction dates starting in FY09. All program capabilities in Table E assume a 50/50 split of federal funds and non-federal funds, but do not represent any federal or non-federal commitment to provide a 50% cost share . Non-federal funds could be State or other funds as secured by the program participants. Some of the funds identified as "Other" in Table E are already committed through CALFED and other non-federal sources.