## CVPIA Fiscal Year 2008 Annual Work Plan

## November 2, 2007.

Program Title
Comprehensive Assessment \& Monitoring Program - CVPIA Section 3406(b)(16).

## Responsible Entities

| Staff Name | Agency | Role |
| :--- | :--- | :--- |
| Doug Threloff | U.S. Fish and Wildlife Service | Lead |
| Ken Lentz | U.S. Bureau of Reclamation | Co-Lead |

## Program Goals and Objectives for FY 2008

Section 3406(b)(16) of the Central Valley Project Improvement Act (CVPIA) authorizes and directs the Secretary of the Interior (Secretary) to establish, in cooperation with independent entities and the State of California, a comprehensive assessment program to monitor fish and wildlife resources in the Central Valley and assess the biological results and effectiveness of actions implemented pursuant to subsection 3406(b) of the CVPIA. The Comprehensive Assessment and Monitoring Program (CAMP) was developed to addresses this requirement.

Section 3406(b) of the CVPIA directs the Secretary to conduct activities that will result in the restoration of fish and wildlife species and their habitats in the Central Valley. One such activity, the Anadromous Fish Restoration Program (AFRP), conducts restoration activities to benefit anadromous fish in the Central Valley pursuant to Section 3406(b)(1) of the CVPIA.

The CAMP focuses on two program objectives that are identified in the 1997 CAMP Implementation Plan:

- CAMP Program Objective \#1 assesses the overall (cumulative) effectiveness of restoration actions implemented under Section 3406(b) of the CVPIA so progress toward restoration goals can be ascertained. The CAMP accomplishes Program Goal \#1 by monitoring natural production of adult anadromous fish in the Central Valley, and comparing these production estimates with production targets developed by the AFRP.
- CAMP Program Objective \#2 assesses the relative effectiveness of categories of restoration actions implemented under Section 3406(b) of the CVPIA so restoration can proceed in the most effective manner through adaptive management. The CAMP currently implements Program Goal \#2 by monitoring the production of juvenile Chinook salmon with the expectation this data can be used to assess relative effectiveness of four categories of restoration actions in the Central Valley: water management modifications,
structural modifications, habitat restoration, and fish screens.
In accordance with these two program objectives, CAMP will conduct the following activities in FY 2008:
- Assess and report the overall (cumulative) effectiveness of restoration actions implemented pursuant to Section 3406(b) of the CVPIA. Results will be reported in a traditional hardcopy document, as tabular data on CAMP's website, or both.
- Administer a peer review process that assesses the feasibility of CAMP's plan to conduct CAMP Program Objective \#2.
- Continue to provide oversight of CAMP projects that were funded in FY 2007. These projects will include monitoring the production of juvenile Chinook salmon in the Stanislaus and Merced rivers.
- Participate in meetings and engage in planning exercises that relate to the CVPIA, e.g., development of a 10-year Implementation Plan for the CVPIA, and activities related to the Program Assessment Rating Tool (PART) and the CVPIA Program Activity Review (CPAR).
- Develop watershed-specific documents that describe the relationship between restoration activities and the production of adult and juvenile Chinook salmon. The CAMP will conduct this activity on a pilot basis in FY 2008 and focus on one or two watersheds.
- Continue to conduct a comprehensive assessment to determine CAMP's future scope, direction, and costs.

The CAMP requests supplemental funds in FY 2008 to conduct the following activities:

- Hire two temporary FWS positions. These employees would develop databases that: (1) describe site-specific monitoring activities that pertain to restoration activities in the 13 Central Valley watersheds targeted in the CAMP Implementation Plan, and (2) assess the relative effectiveness of four categories of restoration activities in the Central Valley. Each database could provide: (1) an accounting of CVPIA funding for activities under subsection 3406(b), and (2) a foundation for understanding effectiveness of completed restoration activities to inform future restoration activities through adaptive management. It is expected that these positions would be filled at the GS-9 level, and would extend for one year. The total estimated cost to hire the two employees in FY 2008 is $\$ 116,204$. Of this amount, $\$ 95,249$ would be applied to direct salary costs and $\$ 20,954$ would be used for administrative costs.
- Operate a rotary screw trap (RST) that quantifies the production of juvenile salmon on the Merced River in FY 2009. The operation of the Merced River RST is identified as a recommended monitoring element in the CAMP Implementation Plan, and supports a

CAMP and CVPIA-related need to accurately quantify the production of juvenile Chinook salmon. Because a substantial amount of logistical planning is required to operate a RST and trapping needs to begin in December 2008 before funds in the FY 2009 budget cycle would normally be available, CAMP is requesting funding in FY 2008 to operate the Merced River RST in FY 2009. The total estimated cost for conducting the Merced River rotary screw trap project in FY 2009 will be $\$ 100,700$. Of this amount, $\$ 95,000$ will be devoted to a contract to conduct the RST project, and $\$ 5,700$ would be used to cover administrative costs associated with the contract.

- Partially fund the first year of a 3-year constant fractional marking (CFM) program that involves Chinook salmon that originated at two CVPIA-related hatcheries, i.e., Coleman National Fish Hatchery and Nimbus Fish Hatchery. This project will include the recovery and processing of Chinook salmon that were marked at the hatcheries with a coded wire tag (CWT) and then are harvested in the Pacific Ocean. Project staff with the Pacific States Marine Fishery Commission (PSMFC) would conduct this project. Completion of this task would provide an accurate estimate of the proportion of naturally- vs. wild-origin Chinook salmon produced from the Central Valley, i.e., this activity is intimately related to CAMP Program Objective \#1. The total cost of this phase of the CFM program in FY 2008 is $\$ 848,000$. Of this amount, $\$ 800,000$ would be used to recover and process adult Chinook salmon that are caught in the Pacific Ocean, and $\$ 48,000$ would cover administrative costs associated with transferring the project funds to the PSMFC.

The ability to successfully conduct this project is time sensitive, and some aspects of this project must begin in July 2008. Because this project is inherently complex, it is essential that funds for this project be appropriated by December 2007 so funding is in place for PSMFC to hire the staff that will process Chinook salmon with a CWT.

## Status of the Program

In 1997, a CAMP Implementation Plan was developed. This document describes how the CAMP will achieve the two aforementioned program objectives in the context of nine anadromous fish taxa. These taxa are fall-, late fall-, winter-, and spring-run Chinook salmon, steelhead, striped bass, American shad, white sturgeon, and green sturgeon.

The CAMP is currently conducting a comprehensive assessment to determine the program's future scope, direction, and costs. The results from the assessment will be included in a programmatic document that updates the 1997 CAMP Implementation Plan. This assessment will: (1) review past and ongoing monitoring projects and identify existing data gaps that must be addressed to achieve CAMP program objectives; (2) quantify the cost for completing critical monitoring activities that are not occurring but should take place between FY 2008 and 2012; (3) identify the partnerships CAMP should pursue to cooperatively fund projects where a partner may share a common interest; and (4) identify mechanisms for providing monitoring information available to interested parties. The results from the assessment may be summarized in a 10-year CVPIA Implementation Plan that is being developed.

To assess the overall (cumulative) effectiveness of restoration actions implemented pursuant to Section 3406(b) of the CVPIA (i.e., CAMP Program Objective \#1), the CAMP strives to produce reports on an annual basis that compare the estimated production of anadromous fish with production targets developed by the AFRP. The most recent CAMP report was produced in 2007, and provides a synthesis and analysis of anadromous fish monitoring data that were collected between 1992 and 2006. This report suggests the majority of the AFRP production targets have not been met on a regular basis. This trend suggests a substantial increase in habitat restoration efforts will be required to promote measurable increases in Chinook salmon production, and thereby achieve the AFRP production targets.

Several entities have expressed concern that it may not be feasible to achieve CAMP Program Objective \#2, as presently defined. The CAMP is therefore conducting a peer review to evaluate the feasibility of completing this objective. The results of this review will be addressed in the aforementioned update to the CAMP Implementation Plan.

The CAMP is currently working with entities that collect data summarized in CAMP reports. These efforts are intended to: (1) clarify how data have historically been collected; (2) provide templates for reporting data, analyses, and results to CAMP; and (3) provide more robust data collection techniques that describe the accuracy and precision of data that are collected.

## FY 2007 Accomplishments

CAMP staff accomplished several activities in FY 2007. The more notable activities are summarized in Table B.

|  |  |
| :--- | :---: |
| ACCOMPLISHMENT | THIS ACCOMPLISHMENT <br> PERTAINS TO: |
| Developed a report that provides a comprehensive analysis <br> and synthesis of 15 years of monitoring data pertaining to 9 <br> anadromous fish taxa in the Central Valley of California. The <br> report also describes how often each taxon's AFRP <br> production target was met between 1992 and 2006. | CAMP Program Objective \#1 |
| Obligated \$96,000 that will be used to monitor the production <br> of juvenile Chinook salmon on the Stanislaus River. These <br> data will be used to assess how successful restoration <br> activities have been on the Stanislaus River. | CAMP Program Objective \#2 |
| Developed a website that highlights the benefits of CAMP. <br> The website will be one of the primary mechanisms for <br> distributing CAMP-related data and documents to the public <br> and interested stakeholders. | CAMP Program Objectives <br> \#1 and \#2 |


| Interviewed each of the program managers that are <br> responsible for implementing 82 CAMP-recommended <br> monitoring activities. These contacts provide a basis for <br> determining which monitoring activities are occurring without <br> the support of CAMP funds, and which projects may need <br> CAMP funding to ensure that adequate monitoring occurs. | CAMP Program Objectives <br> \#1 and \#2 |
| :--- | :--- |
| Acquired 81 reports that provide rotary screw trap data. The <br> data in these reports could be used to assess the relative <br> effectiveness of categories of restoration actions implemented <br> under Section 3406(b) of the CVPIA. | CAMP Program Objective \#2 |
| Awarded a contract to assess the feasibility of conducting an <br> analysis to assess the relative effectiveness of categories of <br> restoration actions implemented under Section 3406(b) of <br> CVPIA, i.e., CAMP Program Objective \#2. | CAMP Program Objective \#2 |
| Participated in meetings and engaged in planning exercises <br> relating to the CVPIA (e.g., development of a 10-year <br> Implementation Plan for the CVPIA, and PART and CPAR <br> activities). | CAMP Program Objectives <br> \#1 and \#2 |
| Ensured that every entity that received funds from CAMP in <br> FY 2006 and FY 2007 produced the reports or products they <br> were obligated to produce. These deliverables are posted on <br> the CAMP website mentioned above. | CAMP Program Objectives <br> \#1 and \#2 |


| Task or Subtask Number | Name of Activity | FTEs | Description of Activity | Completion Date | Total Cost | Funding Source RF | Funding Source WRR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.1 | Program Management | 1.50 |  |  |  |  |  |
| 1.1.1 |  |  | CAMP manager: FWS. The CAMP is responsible for a comprehensive program that: (1) monitors fish and wildlife resources in the Central Valley, and (2) assesses the biological results and effectiveness of restoration activities in that area. On an annual basis, the CAMP will produce one or more reports that address these tasks. <br> If the CAMP is constrained to the President's FY 2008 budget, the CAMP will be limited to routine program management activities, and revising the CAMP Implementation Plan (e.g., identifying specific streams that would be a priority for monitoring). | 9/30/2008 | \$294,518 | \$294,518 |  |
|  | Subtotal Costs |  |  |  | \$294,518 | \$294,518 | \$0 |
| 1.2 | Program Support | 0.03 |  |  |  |  |  |
| 1.2.1 |  |  | CAMP co-lead manager: BOR. The CAMP co-lead's role normally consists of: (1) providing advice, and (2) providing review comments on documents written by the FWS CAMP manager. | 9/30/2008 | \$5,000 | \$5,000 |  |
|  | Subtotal Costs |  |  |  | \$5,000 | \$5,000 | \$0 |
| 1.3 | Technical Support | 0.00 |  |  |  |  |  |
| 1.3.1 |  |  | UNFUNDED NEED:In FY 2008, the CAMP requests supplemental funds to hire two temporary FWS employees. These employees would: (1) initiate efforts to develop a database that describes site-specific monitoring activities associated with restoration activities in 13 watersheds in the Central Valley, and (2) initiate efforts to develop a database that can be used to assess the relative effectiveness of 4 categories of restoration activities that were conducted in the Central Valley. Additional information about this task is included in the "Program Goals and Objectives for FY 2008" section above. | 9/30/2008 | $(\$ 95,249)^{1}$ | \$0 | \$0 |
|  | Subtotal Costs |  |  |  | $(\$ 95,249)^{1}$ | \$0 | \$0 |
| 1.4 | Outreach and Public Involvement | 0.00 |  |  |  |  |  |
| 1.4.1 |  |  | The CAMP will contact various entities that collect data that relevant to section 3406(b)(16) of the CVPIA. These contacts will focus on: (1) gaining insight into how these entities collect data, and (2) developing collaborative partnerships that should result in more robust data collection techniques. The CAMP will also finish updating its website, and use this medium to provide data on the natural production of anadromous fish species in the Central Valley. The cost of these activities is included in the FWS's program management cost estimate in item 1.1.1 above. | 9/30/2008 | \$0 | \$0 |  |
|  | Subtotal Costs |  |  |  | \$0 | \$0 | \$0 |


| Task or Subtask Number | Name of Activity | FTEs | Description of Activity | Completion Date | Total Cost | Funding Source RF | Funding Source WRR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.5 | Monitoring | 0.00 |  |  |  |  |  |
| 1.5.1 |  |  | The CAMP budget has historically had some funding that can be allocated to monitoring projects. The Presidents' budget for the CAMP in FY 2008 is limited to $\$ 300,000$. If the CAMP is constrained to this budget, there will be $\$ 482$ of CAMP funding for monitoring projects in FY 2008, and the CAMP's monitoring activities will largely be limited to managing previously-funded projects. The CAMP is therefore requesting supplemental funds in FY 2008 to complete the activities described in the "Other" section of this table. Douglas Threloff serves as the data steward for the CAMP, and monitoring data that quantifies the natural production of anadromous fish from the Central Valley will be stored in files that are maintained by the CAMP. | 6/30/2008 | \$482 | \$482 |  |
|  | Subtotal Cos |  |  |  | \$482 | \$482 | \$0 |
| 1.6 | Other | 0.00 |  |  |  |  |  |
| 1.6.1 |  |  | The CAMP requests supplemental funds in FY 2008 to complete the following projects: (1) operate rotary screw traps that quantify the production of juvenile salmon on the Merced River, and (2) partially fund efforts to collect and process Chinook salmon that are part of a 3-year constant fractional marking (CFM) program involving hatcheryproduced salmon. The rotary screw trap and CWT projects need to start in December 2007 and September 2008, respectively. Both activities are described in the CAMP Implementation Plan, and support a CAMP and CVPIA-related need to accurately quantify the production of adult and juvenile Chinook salmon. Additional information about theses tasks is included in the "Program Goals and Objectives for FY 2008" section above. <br> The total cost of the Merced River rotary screw trap project and the CVPIA-related portion of the CWT project in FY 2008 is $\$ 848,000$ and $\$ 100,700$, respectively. | The Merced River RST project will occur over several years. <br> the CFM program is currently scheduled to last through 06/2011 | $(\$ 948,700)^{1}$ | \$0 |  |
|  | Subtotal Cos |  |  |  | $(\$ 948,700)^{1}$ | \$0 | \$0 |
|  | Total | 1.53 |  |  | \$1,343,949 | \$300,000 | \$0 |
| 1 = The supplemental funds that are needed to conduct the activities in parentheses are not included in the Total Program Budget. |  |  |  |  |  |  |  |

Table D. CAMP Program Budget for FY 2008
Budget figures assume a bioday rate of $\$ 884.28$; w/ $22 \%$ overhead $=\$ 1,078.82 /$ day, and 182 work days/year.

| Task | Agency | FTE | Direct Salary and Benefits Costs | Contract and Grant Costs | Misc. Costs | Admin Costs | Total Costs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.1 Program Management | FWS | 1.50 | \$241,408 ${ }^{1}$ | \$482 | \$0 | \$53,110 ${ }^{1}$ | \$295,000 ${ }^{1}$ |
|  | BOR | 0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 1.2 Program Support | FWS | 0 | \$0 | \$0 | \$0 | \$0 | \$0 |
|  | BOR | 0.03 | \$5,000 | \$0 | \$0 | \$0 | \$5,000 |
| 1.3 Technical Support | FWS | (2) | $(\$ 95,249)^{1,3}$ | \$0 | \$0 | $(\$ 20,954)^{1,3}$ | $(\$ 116,204)^{1,3}$ |
|  | BOR | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
|  | BOR | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 1.12 Monitoring | FWS | \$0 | \$0 | $(\$ 895,000)^{2,3}$ | \$0 | $(\$ 52,300)^{2,3}$ | $(\$ 948,700)^{2,3}$ |
|  | BOR | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| FWS Total Costs |  | 1.50 | \$0 | \$0 | \$0 | \$0 | \$0 |
| BOR Total Costs |  | 0.03 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total |  | 1.53 | \$246,408 ${ }^{3}$ | \$482 ${ }^{3}$ | \$0 | \$53,100 ${ }^{3}$ | \$300,000 ${ }^{3}$ |

$1=$ This activity assumes that $22 \%$ of the Total Cost is attributed to the administrative cost.
$2=$ This activity assumes that $6 \%$ of the Total Cost is attributed to the administrative cost.
$3=$ The supplemental funds that are needed to conduct the activities in parentheses are not included in the
Total Program Budget

CAMP Five Year Budget Plan
DRAFT CVPIA 5-Year Budget Plan FY 2009-2013
(\$ Thousands)

| Funding Source | Potential Priority Expenditures (in order of priority) | FY 2009 | FY 2010 | FY 2011 | FY 2012 | FY 2013 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| W\&RR | not applicable | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| RF | 1) CAMP management and support <br> (2.1 FTEs) <br> 2) Monitor anadromous fish production | $\begin{gathered} \$ 425 \\ \$ 3,511 \end{gathered}$ | $\begin{gathered} \$ 437 \\ \$ 4,260 \end{gathered}$ | $\begin{gathered} \$ 451 \\ \$ 4,260 \end{gathered}$ | $\begin{gathered} \$ 464 \\ \$ 4,260 \end{gathered}$ | $\begin{gathered} \$ 478 \\ \$ 4,260 \end{gathered}$ | $\begin{aligned} & \$ 2,255 \\ & \$ 20,551 \end{aligned}$ |
| State | not applicable | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other (identify) | not applicable | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total |  | \$3,936 | \$4,697 | \$4,711 | \$4,724 | \$4,738 | \$22,806 |

Managing and supporting the CAMP would include the following activities:

- Developing annual planning documents.
- Preparing one or more reports on an annual basis that provide monitoring data.
- Providing oversight of CAMP-managed or funded projects.
- Developing and maintaining mechanisms for archiving and distributing data.

Increases in the budget figures to manage and support the CAMP assume $3 \%$ annual inflation of the value that was required in 2008.

Monitoring the production of anadromous fish would be accomplished by awarding contracts or grants that are used to collect monitoring data. Increases in the budget figures to monitor anadromous fish in 2009 and 2010 reflect current estimates that have been developed by CAMP. Cost estimates for 2010, 2011, and 2012 assume costs in those years will be comparable to 2009.

