

CENTRAL VALLEY PROJECT IMPROVEMENT ACT

PROGRAM ACTIVITY REVIEW REPORT

December 22, 2008

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EXECUTIVE SUMMARY

In January 2006, the Assistant Secretary for Water and Science of the Department of the Interior (Assistant Secretary) in Washington D.C. directed the Commissioner of the Bureau of Reclamation and the Mid-Pacific Regional Director, to conduct a performance review of the Central Valley Project Improvement Act (referred to herein as CVPIA or the Act), with specific attention to the fish and wildlife provisions of the Act. This activity was undertaken in coordination and partnership with Region 8 of the Fish and Wildlife Service.

The primary purpose of this review was to determine when the relevant provisions of the Act would be sufficiently implemented as to consider them “complete” for funding purposes. In response to the directive by the Assistant Secretary, Reclamation and the Service conducted the CVPIA Program Activity Review (CPAR) focused on the fish, wildlife, and habitat restoration provisions of Section 3406 (Fish, Wildlife, and Habitat Restoration) which are funded by the Restoration Fund.

The broader purposes of CVPIA were articulated in Section 3402 of the CVPIA:

- a. To protect, restore, and enhance fish, wildlife, and associated habitats in the Central Valley and Trinity River basins of California.
- b. To address impacts of the Central Valley Project on fish, wildlife, and associated habitats.
- c. To improve the operational flexibility of the Central Valley Project.
- d. To increase water-related benefits provided by the Central Valley Project to the State of California through expanded use of voluntary water transfers and improved water conservation.
- e. To contribute to the State of California’s interim and long-term efforts to protect the San Francisco Bay/Sacramento-San Joaquin Delta Estuary.
- f. To achieve a reasonable balance among competing demands for use of Central Valley Project water, including the requirement of fish and wildlife, agricultural, municipal and industrial, and power contractors.

Because the development of this report was prompted in part by concerns raised by water and power contractors of the CVP, the Assistant Secretary directed the agencies to invite interested contractors and other stakeholders to participate in the review effort by providing input to the process in the form of information and perspectives. A specific concern and focus of many water and power contractors is Section 3407(d)(2), which describes a mechanism by which the Secretary of the Interior can reduce the Restoration Fund payments required of water and power contractors.

Section 3407(d)(2) of the Act reads:

“Provided further, that upon the completion of the fish, wildlife, and habitat mitigation and restoration actions mandated under Section 3406 of this title, the Secretary shall reduce the sums described in paragraph (c)(2) of this section to \$35,000,000 per year (October 1992 price levels) and shall reduce the annual mitigation and restoration payment ceiling established under this subsection to \$15,000,000 (October 1992 price levels) on a three-year rolling average basis.”

The Restoration Fund itself is introduced in Section 3407(a). This section and the following section establish a revolving fund i.e., the Restoration Fund, with an appropriation ceiling of \$50 Million per year. This is funded primarily by a surcharge on water and power contracts, for the express purpose of carrying out the Restoration activities of CVPIA.

Many of the CVP contractors maintain that the Section 3406 actions have been completed or at least substantially completed. Based on this viewpoint, these parties requested that the Department of the Interior determine if the requirements of Section 3407(d)(2) have been sufficiently met to reduce the water and power contractor payments into the Restoration Fund. These contractors, as well as other stakeholders, have also asked for a more thorough evaluation of the goals, objectives, and performance accomplishments of the CVPIA fish and wildlife restoration provisions, with a particular emphasis on the results that have been achieved, rather than the actions that have been implemented.

Key factors in the determination of whether restoration activities are complete and thus funding can be reduced, are (1) the type of performance goal for each provision, whether “outcome” or “output” and (2) the “time frame” associated with each provision and its performance goal. As explained in more detail in Chapter 2, the time frame of a performance goal is the term or duration for accomplishing the target action.

“Annual” activities, by definition, do not have an associated time frame because they occur every year and will continue into the future, such as providing refuge water supply each year. Other performance goals are “time certain”, that is, a discrete and definable conclusion exists, such as removing a dam.

These factors are significant in that they affect the conclusion drawn in this report. The basic conclusions of this report are two:

1. That the “time certain” provisions of the Act should be the primary factor in the determination of whether the provisions of Section 3407(d)(2) have been satisfied, but that the funding requirements of “annual” provisions should also be weighed in the funding reduction determination.
2. That as of the date of this report, there is no basis to conclude that the provisions of Section 3407(d)(2) have been satisfied and that therefore, there is no basis at this time on which to reduce contractors’ required payments into the Restoration Fund.

This report is divided into five chapters: Chapter 1 includes background information on the Central Valley Project and the CVPIA. Chapter 2 focuses on the performance goals contemplated by those provisions of Sections 3406 that direct the Secretary of the Interior to take certain actions to accomplish the purposes of the Act. This chapter also documents the measures that are used to gauge the accomplishment of the provisions of the Section 3406 that are eligible for Restoration funds. This chapter also reports the amount of Restoration Fund money obligated to each provision from 1993 through Fiscal Year (FY) 2008. Chapter 3 provides a brief overview of funding for the Restoration Fund, including the seven sources of collections and contributions for the Restoration Fund. Chapter 4 focuses on the mitigation and restoration fees and surcharges required under the provisions of Section 3407. This section includes the provisions that authorize and direct the establishment of the Restoration Fund, the primary funding for implementation of CVPIA, and the Section 3406 provisions. This chapter also describes the criteria that can be used to determine when collections from the water and power contractors could be reduced, pursuant to Section 3407(d)(2). This chapter also provides some information as to the accomplishments of the agencies in implementing each 3406 provision. Chapter 5 provides preliminary conclusions and a brief discussion of next steps in the CVPIA review process.

This report includes four appendices. Appendix 1 is a listing of definitions for acronyms and abbreviations. Appendix 2 is a list of agencies and stakeholders that participated in the working group process described later in this Report. Appendix 3 is additional information regarding the views of stakeholders expressed during the CPAR process. Appendix 4 deals with alternative methods of developing funding reduction criteria.

Chapter 1.0 Background

1.1 Introduction

Pursuant to the direction of the Assistant Secretary, Reclamation in cooperation with the FWS, invited a wide variety of stakeholders who have been involved in the implementation of the Act to participate in the program activity review (referred to herein as CPAR). A specific interest and focus of many stakeholders was and continues to be Section 3407 (d)(2), which describes funding reduction criteria. These interested parties, along with Service and Reclamation staff, convened as a Working Group, including representatives of water and power agencies, federally recognized Tribes, other Federal and State agencies, and environmental groups. The Working Group met more than 30 times to discuss concerns and issues, and provided hundreds of comments and suggestions for agency consideration.

One of the Working Group's first activities involved assisting Reclamation and the Service in clarifying the purpose statement for the CPAR, which guided the review process and Working Group discussions. The following purpose statement was developed by the Working Group for the CPAR and this report:

The purpose of the Central Valley Project Improvement Act (Act) Program Activity Review is to define completion criteria, clarify performance goals, and assess the status and progress of the Section 3406 provisions of the Act.

Reclamation and the Service will conduct this Program Activity Review with other Federal, tribal, and State agencies, stakeholders, and other interested parties.

Reclamation and the Service will prepare a document summarizing the results of the Program Activity Review.

The document will contain implementation status and achievements to date; summarized perspectives and conclusions; and agency recommendations.

This report will provide a summary and assessment of the status of specific CVPIA provisions. The findings and conclusions herein represent the agencies' determinations and decisions.

This Report will assist Reclamation and the Service in refining or revising policy and guidance for implementation of the CVPIA fish, wildlife, and habitat restoration programs.

1.2 The Central Valley Project

In 1933, the California Legislature approved the Central Valley Project (CVP), a system to store and deliver water for urban and agricultural uses and control periodic flooding. The State attempted to sell bonds to finance the project, but during the Depression the bonds did not sell. Unable to pay for the project, the State turned to the Federal government.

In 1935, passage of the Rivers and Harbors Act authorized the U.S. Army Corps of Engineers to begin construction of the CVP. When the Act was reauthorized in 1937, Reclamation was directed to assume responsibility for CVP construction and operation.

Today, the CVP is one of the world's largest water storage and conveyance systems, comprising 18 dams and reservoirs (capable of storing 9 million acre-feet of water), 11 power plants, 500 miles of major canals and aqueducts, 3 fish hatcheries, and numerous related facilities such as pumping plants and power lines. Historically, the CVP conveys about 7 million acre-feet of water annually from the Sacramento, Trinity, American, Stanislaus, and San Joaquin Rivers to agricultural and municipal water users and wildlife refuges in the Sacramento and San Joaquin Valleys and the San Francisco Bay Area. In addition, CVP power plants generate about 5.6 billion kilowatt-hours of hydroelectric power annually.

California relies on CVP dams and reservoirs to help balance and control its water resources. Much of the State's water originates in the north part of the State and is conveyed south of the Delta for agricultural and domestic (municipal and industrial) use. Some CVP water is diverted to contractors along the Sacramento River and the American River, and the rest flows into the Sacramento-San Joaquin River Delta, where it co-mingles with other supplies, primarily that of the State Water Project (SWP). In a typical year, about one quarter of the water entering the Delta is pumped south or used within the Delta, while the remainder flows to the San Francisco Bay and Pacific Ocean.

The Reclamation Project Act of 1939 provided a plan for the repayment of construction charges on Reclamation projects, and the original CVP water supply contracts were established in the 1940s and 1950s. Today, there are 250 water contracts: 141 Sacramento River Settlement Contracts, primarily for irrigation water; and 109 Water Service Contracts for irrigation and/or municipal and industrial use.

The ecosystems of the Central Valley, Delta estuary, San Francisco Bay, and Trinity River are affected by these water diversions, particularly during drought years. Compliance with the applicable State and Federal law, CVP water rights permits and licenses, and State water quality requirements often mandates releases from CVP dams to regulate water temperature, salinity, and instream flows, and results in limits on water diversions for consumptive-use in the Central Valley.

1.3 The Central Valley Project Improvement Act

On October 30, 1992, Public Law 102-575, the Reclamation Projects Authorization and Adjustment Act of 1992, was signed into law by the President. This legislation included Title 34, the CVPIA. The CVPIA amends previous authorizations of the CVP to include fish and wildlife protection, restoration, and mitigation as project purposes having equal priority with irrigation and domestic uses, and fish and wildlife enhancement as a project purpose equal to power generation.

The CVPIA addressed the importance of the CVP to the State's water resources, and made significant changes in the policies and administration of the project. The purposes of the Act include protecting, restoring, and enhancing fish, wildlife, and associated habitats, and contributing to the State of California's interim and long-term efforts to protect the San Francisco Bay/Sacramento-San Joaquin River Delta Estuary.

The Restoration Fund, established by Section 3407(d) of the CVPIA, finances most CVPIA projects. The Restoration Fund is an account in the Treasury of the United States. It consists largely of revenue generated by fees imposed on CVP water and power users. This account holds the revenues from all sources as provided in Section 3407.

The CVPIA identified a number of specific measures to meet the new CVP purposes and directs the Secretary of the Interior to operate the CVP consistent with the purposes, to meet the Federal trust responsibilities to protect the fishery resources of affected federally recognized Indian tribes, and to achieve a reasonable balance among competing demands for use of CVP water.

Section 3409 of the CVPIA directed the Secretary to complete a Programmatic Environmental Impact Statement (PEIS) to analyze the direct and indirect impacts and benefits of implementing CVPIA. The CVPIA also directed the Secretary to renew existing CVP water service and repayment contracts following completion of the PEIS and other required environmental documentation.

To achieve the purposes of CVPIA, a number of specific requirements were included in the statute, i.e., specific programs, measures, and operational and management directives to be implemented consistent with California and Federal law. These requirements deal with water contracts, improved water management, reasonable efforts to restore anadromous fish populations, water supplies for certain State and Federal refuges and wildlife habitat areas, mitigation for other CVP-impacted fish and wildlife, and retirement of drainage-impaired agricultural lands. They also provide for system-wide modeling, numerous investigations and studies, and monitoring to assess the biological results and effectiveness of CVPIA actions.

1.4 Implementation Roles & Responsibilities

Congress tasked the Secretary of the Department of the Interior to implement CVPIA. A recommendation for joint responsibility, in a memorandum from the Regional Directors of the Bureau of Reclamation and the Fish and Wildlife Service, was approved by the Secretary on March 15, 1993.

Reclamation has primary responsibility for all budget submissions supporting both Agencies' use of the Restoration Fund and Water and Related Resources dollars, including all associated duties for appropriations, finance, and accounting.

The Service has primary responsibility for decisions on biological resource issues; for studies on fish and wildlife, their populations and habitat requirements; for fishery restoration program direction; and for the planning, design, and decisions on the administration of fish and wildlife facilities.

Program Managers from each agency are assigned to develop and manage specific program activities in accordance with the applicable provisions of the Act. Although one agency generally is designated as the lead, both agencies contribute to annual work plans, budget, and implementation timeline responsibilities.

The agencies were joint-lead Federal agencies for the CVPIA Final Programmatic Environmental Impact Statement and its Record of Decision (PEIS and ROD). The PEIS and the ROD broadly identified the overall program and actions to achieve the purposes of the Act, including the fish and wildlife restoration provisions. For example, the Anadromous Fish Restoration Program (AFRP) Plan, completed in 1995, described the actions and efforts to be undertaken specifically for Section 3406(b)(1), to make all reasonable efforts to double the populations of anadromous fish in the Central Valley rivers and streams over and above the baseline populations of 1967-1991. Some provisions of the CVPIA were implemented beginning in 1993, but most were not initiated until after the signing of the ROD in January 2000.

The agencies continue to provide leadership for implementing the CVPIA activities in compliance with multiple environmental regulations, including the National Environmental Policy Act, Endangered Species Act, Clean Water Act, National Historic Preservation Act, and other applicable Federal law. The Service and Reclamation cooperate and partner with other Federal and State agencies with the authority, interest, ability, expertise, and/or resources to implement CVPIA restoration actions via interagency agreements, memoranda of understanding, grants, and cooperative agreements.

State agencies involved in various aspects of CVPIA implementation include the Department of Water Resources, the Department of Fish and Game, the CALFED Bay Delta Authority, the State Water Resources Control Board, and the Reclamation Board.

Federal agencies engaged in CVPIA related actions include the Natural Resources Conservation Service, U.S. Forest Service, Bureau of Land Management, National Marine Fisheries Service, U.S. Geologic Survey, Bureau of Indian Affairs, U.S. Army Corps of Engineers, and Western Area Power Administration. Many federally recognized Tribes of California have also engaged in various aspects of CVPIA implementation and review processes. Among the most active have been the Hoopa Valley Tribe, the Cachil Dehe Band of Wintun Indians of the Colusa Rancheria, and the Yurok Tribe.

Local agencies and organizations including watershed workgroups, conservation groups, water districts, non-profit groups, school groups, and individual property owners all help implement restoration actions. Agreements are reached with these agencies and

organizations, and funds and services are directed to them through memoranda of understanding, grants, self-governance compacts, cooperative agreements, and cost-sharing agreements.

The agencies coordinate program planning and implementation activities with interested stakeholder groups representing Tribal, water and power, agriculture, municipal and industrial, and environmental interests through regular public meetings and the Restoration Fund Roundtable. In the Energy and Water Appropriations bill for 1996, Congress urged the Secretary to work closely with the Roundtable as an interested stakeholder group that provides comment to Interior. Restoration Roundtable meetings are usually held at least twice per year to review and discuss the CVPIA Program and priorities, budgets, program plans, progress toward implementation, and accomplishments.

1.5 Program Management

During the past 150 years, competition for water originating within the tributary area of the Sacramento-San Joaquin Delta has escalated. Mining activities, agricultural and municipal development, construction and operation of water and flood control systems, and the hydrologic cycle of dry and wet years have combined to degrade the quality of habitat that supports fish and wildlife resources in the Central Valley and Trinity River basins from their natural conditions.

As authorized, implementation of CVPIA was intended to fully mitigate for CVP impacts due to its construction, and operation and maintenance. In addition to CVP mitigation, many of the provisions were also intended to provide expanded environmental benefits serving the public interest. These expanded environmental benefits help to offset the environmental impacts of other past and present actions by public and private entities.

Over the past 16 years, since the passage of CVPIA, the agencies have developed program plans to achieve the program scope and environmental purposes. Additional documents are prepared for annual implementation and budget formulation. While there were no cost estimates associated with CVPIA in 1992, Congress has provided annual appropriations of Restoration Funds and funds through the Water and Related Resources appropriations in substantial amounts. In addition, the Act authorizes and directs Reclamation and the Service to negotiate and enter into cost-sharing agreements, generally with the State of California. The appropriations and agreements provide significant financial resources to accomplish the provisions of the Act.

However, the agencies have realized that full implementation of all identified CVPIA activities would require funding well in excess of available and projected funding levels (unconstrained funding needs). Consequently, in recent years, the agencies have developed annual and 5-year strategic priorities to formulate budget requests, as well as to provide guidance on how available funds should be allocated to the various activities in support of the Act. Annual Work Plans (AWPs) are developed for each provision

eligible for restoration funding during the standard Federal budgeting timeframes. AWP's are developed by each Program Manager and describe the objective of the program activity, actions to be undertaken, benefits achieved (biological and non-biological), funding needs, and out-year commitments and actions.

Once Congress approves the President's Budget, the AWP's are updated to reflect any changes. The agencies adjust funding among program activities to focus available funds on priority actions.

1.6 Agency Performance Reporting & Documentation

The agencies report on CVPIA accomplishments and budgets each year. At the end of each FY, an Annual CVPIA Accomplishment report is developed and submitted to Congress reporting on all the CVPIA programs funded, actions implemented, amount of funds obligated, benefits achieved (biological and non-biological), and accomplishments. In October 1999, DOI Agencies published a "*Six-Year Plan and Budget for Implementing the CVPIA: Fiscal Years 1999-2004*". In February 2005, the Agencies published a ten-year accomplishment report titled "*10 Years of Progress*."

The Annual Work Plans, the Annual CVPIA Accomplishment Reports, the six-year report and the 10 Years of Progress report are posted on the CVPIA Web site: http://www.usbr.gov/mp/cvpia/docs_reports/index.html.

Chapter 2 of this report describes the agencies' process to develop, select, and document performance goals for CVPIA provisions. The concept of establishing performance goals for Federal agency programs arose from the Government Performance and Results Act of 1993 (GPRA) and the President's Management Agenda. While GPRA is intended to measure agency performance and results for programs enumerated in an agency's budget, the concepts of establishing program performance goals with measurable performance indicators is valid at all levels of program management. Use of the GPRA concepts is intended to effectively respond to the Assistant Secretary's request for a report on the status of the agencies' accomplishment of the provisions of CVPIA.

The Program Assessment Rating Tool (PART) was introduced in the Administration's FY 2004 Federal budget submittal to Congress. It states:

Federal programs should receive taxpayer dollars only when they prove they achieve results. The Federal government spends over \$2 trillion a year on approximately 1,000 Federal programs. In most cases, we do not know what we are getting for our money. This is simply unacceptable.

PART is intended to hold agencies accountable for accomplishing results. And, the primary assumption is:

... a program that cannot demonstrate positive results is no more entitled to funding, let alone an increase, than a program that is clearly failing.

At the request of the Federal Office of Management and Budget (OMB), Reclamation, in coordination with the Service, completed an initial PART evaluation for CVPIA in 2006. The results have been included in the Administration's FY 2008 Federal Budget Submittal to Congress in February of 2007.

The results of the PART evaluation provided meaningful evidence to Congress and other decision-makers and helped inform funding decisions and identify flaws in underlying statutes that undermine their effectiveness. The evaluation consisted of four critical areas: purpose and design, strategic planning, management, and results and accountability and was based on responses to 25 common questions.

In addition to reviewing the overall program performance, the following elements were addressed:

- Clarifying program purpose(s).
- Describing three to seven measurable performance goals.
- Evaluating program management strategies and approaches.
- Reporting results achieved.
- Identifying program improvements.

The PART process also requires specifically defined performance goals including measures, targets, and timeframes to achieve program purposes. Actual performance is recorded and compared to these established goals. In consultation with OMB, Federal agencies not only complete the initial evaluation but also report annually, making the information available to Congress and the public.

To some extent PART can be considered as the larger context of this CPAR Report. There is an overlap between the broader Performance Goals and Measures of the PART Implementation Plan and the more specific provision by provision performance goals and measures of CPAR.

Chapter 2 Performance Goals

This chapter describes the performance goals developed by the agencies. Since 1993, the agencies have complied with CVPIA through the formulation and implementation of CVPIA programs and activities. These programs were designed to be consistent with CVPIA and to implement the Congressional direction described in the Act, and the agencies have been measuring their performance by tracking and reporting on program accomplishments.

In February 2006, as part of the CPAR process, the agencies began to more formally establish performance goals to specifically measure the agencies' performance against each provision of CVPIA, consistent with the GPRA and the President's Management Agenda.

2.1 Provisions Addressed With Performance Goals

Table 1 lists the provisions covered in this Report and the status of each, whether "complete" or "incomplete," or whether it is an ongoing "annual" activity that will not have a completion date. A "complete" activity is one that has or had a definite "time certain" requirement or completion date, such as the Shasta Temperature Control Device. An incomplete action is one that does have an end point or a completion date. Such actions may also be referred to as "time certain" actions. An annual action is one that could, if sufficient funding were available, continue indefinitely, such as annual gravel replacement.

Many of the provisions of the CVPIA are eligible for Restoration funding. Table 1 also shows the approximate amount of Restoration Fund money spent on each provision from 1993 through FY 2008. It also includes separate columns for funds from the Water and Related Resources (W&RR), if such funds are specifically directed at CVPIA actions.

Table 1. Provisions Eligible for Restoration Funds, Status and Funding to Date

Provision	Status	Water & Related Funds Obligated through FY 2008	Restoration Funds Obligated through FY 2008
3406(b)(1) Anadromous Fish Restoration Program	Incomplete/Annual	\$0	\$71,335,447
3406(b)(1) other CVP Impacts – Habitat Restoration Program	Incomplete	\$0	\$35,725,594
3406(b)(1) other – Trinity River Restoration	Incomplete/Annual	\$29,917,055	\$4,255,061
3406(b)(1)(B) Modify CVP Operations	Incomplete/Annual	\$0	See 3406(b)(1)
3406(b)(2) Dedicated Project Yield	Annual	\$39,952	\$14,525,727
3406(b)(3) Water Acquisition (includes 3408g -VAMP)	Incomplete/Annual	\$11,499,611	\$163,164,136
3406(b)(4) C.W. Jones (Tracy) Pumping Plant Mitigation Program	Incomplete	\$17,935,564	\$7,948,406
3406(b)(5) Contra Costa Canal Pumping Plant No. 1	Incomplete	\$1,290,238	No RF\$
3406(b)(6) Shasta Temperature Control Device	Complete	\$45,729,572	\$35,728,935
3406(b)(7) Flow Standards and Objectives	Annual	\$0	No RF\$
3406 (b)(8) Short Pulse Flows	Annual	\$0	No RF\$
3406(b)(9) Flow Fluctuations	Annual	\$251,031	\$939,917
3406(b)(10) Red Bluff Diversion Dam	Incomplete	\$44,948,233	\$2,234,204
3406(b)(11) Coleman Fish Hatchery and Keswick Dam	Incomplete	\$8,787,635	\$13,751,491

3406(b)(12): Clear Creek Restoration Program	Incomplete/ Annual	\$2,744,614	\$7,164,597
3406(b)(13): Spawning Gravel	Annual	\$0	\$6,893,007
3406(b)(14) Delta Cross Channel and Georgiana Slough	Incomplete	\$723,476	No RF\$
3406(b)(15) Head of Old River Barrier	Incomplete	\$1,211,161	No RF\$
3406(b)(16) Comprehensive Assessment and Monitoring Program	Annual	\$125,137	\$12,364,048
3406(b) (17) Anderson Cottonwood ID	Complete	\$242,714	\$111,267
3406(b)(18) Restore Striped Bass Fishery	Incomplete	\$0	No RF\$
3406(b)(19) Minimum Carryover Storage	Annual	\$0	No RF\$
3406(b)(20) Glenn Colusa Irrigation District	Complete	\$37,102,819	No RF\$
3406(b)(21) Unscreened/Inadequately Screened Diversions	Incomplete/ Annual	\$26,266,758	\$54,626,330
3406(b)(22) Ag Waterfowl Incentive Program	Complete	\$0	\$5,065,095
3406(b)(23) Trinity River Flow and Fishery Restoration	Incomplete/ Annual	\$34,076,984	\$4,509,313
3406(c)(1) San Joaquin	Incomplete	\$596,732	\$13,831,318
3406(c)(2) Stanislaus	Complete	\$715,714	\$276,266
3406(d)(1) Refuge Water	Annual	Level 2 conveyance included in (d)(5)	Level 2 conveyance included in (d)(5)
3406(d)(2) Refuge Water	Incomplete/ Annual	Level 4 acquisition included in (b)(3)	Level 4 acquisition included in (b)(3)
3406(d)(5) Refuge Conveyance/Construction	Incomplete/ Annual	\$17,637,159	\$143,856,566
3406(d)(6) Central Valley Wetlands Supply	Complete	\$11,390	\$2,100,144

3406(e) Supporting Investigations	Complete	\$0	\$1,958,987
3406(f) Project Fisheries Impact Report	Complete	\$0	\$1,470,967
3406(g) Models	Incomplete/ Annual	\$7,427,150	\$4,073,998

2.2 Definition of Performance Goals

Performance goals are descriptions of how the agencies measure success in accomplishing the provisions of the CVPIA. Consistent with the Office of Management and Budget performance assessment process (OMB PART) developed under GPRA and the President’s Management Agenda, the agencies developed performance goals with four elements. These are explained below along with a short narrative description:

- **Type** - There are two types of performance goals used in this Report. “Output” type performance goals result in an action implemented or goods and services produced to comply with a provision. Examples include a new fish screen, a specific amount of water, a report. “Outcome” type performance goals describe an intended result or consequence that would occur from carrying out one or more activities. Examples of outcome type performance goals include increased populations of a fish species or reduced entrainment of fish at the Project facilities.
- **Measure** - The measure of a performance goal is essentially the unit or metric that is used to measure accomplishment of the goal, such as the number of returning adult salmon or thousand acre-feet (TAF).
- **Target** - The target is the numeric value of the measure. Examples of measures and targets include 15 fish screens, 100 TAF of water, or one report.
- **Time Frame** - The time frame of a performance goal is the term or duration for accomplishing the target. “Annual” activities will, by definition, not have an associated time frame because they occur every year and will continue into the future, such as providing refuge water supply each year. Other performance goals are “time certain”, that is, a discrete and definable conclusion exists, such as removing a dam.

A key consideration in documenting performance goals is the performance goal type. As defined above, output type goals describe the activity or goods or services, that will be provided over a period of time to achieve the program outcomes. They represent a discrete set of actions that are to be completed.

Outcome type goals describe the intended or end result of carrying out a program or activity. They define an event or condition that is of direct importance to the intended beneficiaries and/or the public. For CVPIA fish and wildlife restoration provisions, the outcomes are typically biological results, such as numbers or size of fish or wildlife populations, or improved habitat conditions. Outcome type goals are often broad and typically require many years to accomplish. The provisions of CVPIA that have outcome type performance goals are those that direct the agencies to develop and then implement a program to restore, mitigate, or prevent a type of impact, as opposed to those provisions that require a specific action.

Completion of an output type performance goal does not necessarily assure that the eventual desired outcome will be attained, depending how directly linked the action (output) is to the ultimate goal (outcome). Output type performance goals are most appropriate when cause-and-effect relationships between actions and the biological effects are well understood, or when the metric for the output goal is easily measured.

Outcome type goals can be difficult to measure compared to output type goals. For example, it may be difficult to measure the number of fish saved at a fish screen (outcome type goal), while it is relatively simple to measure the completed construction of a fish screen (output type goal).

Outcome type performance goals specify the end result but provide a large degree of flexibility in selecting the method(s) to achieve those results. Outcome type goals are particularly appropriate when the environmental conditions, scientific information, and/or available resources change over time. Focusing on outcomes allows for continually improving efficiency of the agencies as experience or technology improves. All of these positive characteristics of outcome type performance measurement are highly compatible with the Department of Interior policy with regard to adaptive management.

Outcome type goals can require many years to achieve, and unless broken down into discrete actions, they can be difficult to use in measuring progress, particularly given the annual budget cycle of government agencies. In these cases, it may be more appropriate to identify a number of output type goals that are more readily measured to mark progress toward the ultimate outcome type goal.

2.3 Performance Goal Development

With input and advice from the Working Group, agency staff developed the performance goal type, measure, target, and time frame for each provision. Alternative performance goals were discussed for many provisions. Differing opinions and perspectives ranged from specific target numbers to broad philosophical approaches. Appendix 3 provides some idea of the various views and perspectives offered by Work Group members. There was also a recognition that performance goals, once established, are not constant but may change or evolve over time, through adaptive management and as additional information is discovered during the program implementation process.

All views and perspectives were considered in the Agencies' internal process of selecting specific performance goals for each provision. The Working Group reviewed and discussed each provision in detail to identify, if possible, the four elements that comprise a performance goal. Identifying the level of detail for the performance goals was challenging. Generally, participants wanted to develop performance goals for each individual program activity or provision.

In many respects, the discussions regarding performance goals were complicated by the concurrent discussion of reducing the Restoration Fund - the topic of Chapter 4 of this report. This was in some cases the primary motivation for the stakeholders and it often appeared that the perspective of any given member of the Working Group regarding the performance goal type, measure, and target, was formulated based on how each element would affect the timing of a reduction in the Restoration Fund, rather than the intent of the provision.

Essentially, the agencies have selected performance goals for each activity or provision without specific regard to the decision regarding how and when the Secretary may reduce funding the Restoration Fund. Although there is a relationship between performance goals and funding reduction criteria, the agencies approached each with a "provision by provision" approach in order to maintain focus and minimize confusion.

Based on the language in the Act, it was generally possible to classify various provisions as either outcome type or output type goals. In some cases, a hybrid approach was used that was based on a broad outcome performance goal, but an output goal was used to gauge the level or rate of substantial compliance or completion. For example, where the use of output type performance goals was consistent with the Act and where the agencies have issued formal decisions regarding implementation activities (for example, the Anadromous Fish Restoration Program Plan or the Trinity River Restoration Program Record of Decision), outputs seem to best represent the agencies' progress toward the outcome goal. Following this concept, an output type performance goal with targets and measures based upon the decision would be selected as the benchmark mechanism by which the outcome goal could be viewed.

2.4 Identification of Performance Goals

This section of the Report documents the Performance Goal for each provision of the Act. Each provision's performance goal is described by quoting the pertinent language from the Act, providing an objective description of the provision, the type of goal, and time frame, followed by measures and targets. There may also be notes providing clarifying background information needed to understand the goal, including in some cases, concepts or perspectives provided by members of the Working Group.

3406(b)(1) Anadromous Fish Restoration Program (AFRP)

Language from the Act: “Develop within three years of enactment and implement a program which makes all reasonable efforts to ensure that, by the year 2002, natural production of anadromous fish in Central Valley rivers and streams will be sustainable, on a long-term basis, at levels not less than twice the average levels attained during the period of 1967-1991.”

<i>Performance Goal Description: Make all reasonable efforts to ensure that, by the year 2002, natural production of anadromous fish in Central Valley rivers and streams will be sustainable, on a long-term basis, at levels not less than twice the average levels attained during the period of 1967-1991.</i>	
Time Frame: Time Certain/Annual	Type: Outcome/Output
Outcome Measure: Fish Population Sizes Outcome Targets: Winter-run Chinook: 110,000; Spring-run Chinook: 68,000 Fall-run Chinook: 750,000; Late Fall-run: 68,000 Steelhead: 13,000; Green Sturgeon: 1,966; White Sturgeon: 11,142 Striped Bass: 2,500,000; American Shad: 4,300 (These are annual performance goals.)	
Output Measure: Accomplishment of AFRP Plan Actions. Output Target: 128 AFRP high and medium priority actions (53 structural actions and 75 non-structural actions). (These are time certain performance goals.)	

The output target number represents a subset of the 170 high and medium priority AFRP actions. Actions not included here are generally implemented pursuant to other CVPIA provisions which also support the goal of doubling natural production of anadromous fish populations (such as Tracy Pumping Plant Mitigation, Red Bluff Diversion Dam).

This broad outcome goal of “fish doubling” is the ultimate measure of program success. However, this language is tempered by the additional provision of “all reasonable efforts.” Consequently, the agencies believe that progress towards that goal can best be measured by outputs. Given that the AFRP Plan and the CVPIA Programmatic Environmental Impact Statement are both complete, the agencies have determined that these two documents best describe the “reasonable efforts” the agencies could undertake. Furthermore, the agencies have determined that the time certain actions described in the AFRP and accounted for under 3406(b)(1) constitute a reasonable and achievable target. The Agencies interpret the law to mean they should continue their reasonable efforts until the outcome of doubling natural production is achieved or at least until the 128 major AFRP actions have been completed.

Over the course of CVPIA implementation, it has become clear that the initial legislative target of 2002 for achievement of fish doubling is not realistic. In early 2006, through the PART process, the agencies proposed to extend the performance target date by another decade to 2012, at which time the agencies expect to be able to clearly articulate a more precise scientifically-based target date and to provide any required updates to the AFRP. There is, of course, no guarantee that this target date will be achieved.

Some Working Group participants expressed the view that the performance goal for this provision should be defined by implementation of “all reasonable efforts” by 2002. These participants define reasonable effort as: 1) collecting the Restoration Fund to the maximum extent allowed by the law; 2) the Secretary utilizing full discretion to implement the Act and the AFRP Plan; and 3) Reclamation and the Service coordinating the AFRP with the State of California and other partners to make best use of the Restoration Fund. Participants with this perspective noted that the reasonable efforts language should be considered as the performance goal for all activities that contribute to the doubling goal.

Other Working Group participants thought that the performance goal should be based on the sustainable, long-term doubling of natural production of anadromous fish as described in the Act, and that the “all reasonable efforts” language of Section 3406 (b)(1) describes full implementation of the tools available in the Act, including all of the provisions and activities included in this review. These interests state that the activities and expenditures authorized by provisions of the Act related to Central Valley fisheries [such as (b)(2), (b)(3), and (b)(13)] are, by definition, part of the “reasonable efforts” Congress intended Interior to use to achieve the doubling goal, and that 3406 (b)(1) only gives Interior discretion with regard to the mix of specific activities and expenditures in a given year that constitutes “reasonable efforts.” They further note that the 2002 date in the Act describes a target date, rather than a completion or sunset date for the program. Therefore, the goal for the AFRP is to achieve the doubling goal, and that goal should be pursued until it is achieved, however long it takes.

The Final Restoration Plan for the Anadromous Fish Restoration Program is a programmatic-level description of the program (AFRP). The AFRP Plan describes the goals, objectives, and strategies of the AFRP and it guides the long-term implementation of the AFRP. The Final AFRP Plan is available at <http://www.delta.dfg.ca.gov/afrp/>.

3406(b)(1) (other) Address Other CVP Impacts

Language from the Act: “That in the course of developing and implementing this Program the Secretary shall make all reasonable efforts consistent with the requirements of this section to address other identified adverse environmental impacts of the Central Valley Project not specifically enumerated in this section.”

<i>Performance Goal Description: Make all reasonable efforts to address other identified adverse environmental impacts of the CVP not specifically enumerated in Section 3406(b)(1). Interpreted to mean terrestrial and aquatic impacts on upland and riparian habitats in the Central Valley, including aspects of the Trinity River corridor restoration not directly covered by the Trinity River Record of Decision, resulting from construction, operation and maintenance of the CVP.</i>	
Time Frame: Annual	Type: Outcome
<p>Measure: Restoration or mitigation of a portion of the estimated 2.7 Million habitat acres impacted, directly and indirectly, by the construction and operation of the CVP, including riparian habitat, vernal pools and other wetlands, grasslands, chaparral, alkali sink/scrub, serpentine soil habitat, etc.</p> <p>On the Trinity River, interpreted to mean channel rehabilitation and riparian corridor habitat restoration and other actions not directly covered by the Trinity ROD.</p>	
<p>Target: Assist State and local interests to restore or mitigate for, on an annual basis, a reasonable amount of habitat acreage impacted by the CVP in the Central Valley and Trinity River. Also on Trinity, repair and restore 47 infrastructure sites on and along the riparian corridor. These provisions may be considered as an “annual” rather than a “time certain” performance measure, because there is no time estimate available for when these actions might be concluded. Some actions may be time certain but it is difficult to know which those might be this point in the program.</p>	

3406(b)(1)(B) Modify CVP Operations

Language from the Act: “As needed to achieve the goals of this program [the AFRP], the Secretary is authorized and directed to modify Central Valley Project operations to provide flows of suitable quality, quantity, and timing to protect all life stages of anadromous fish, except that such flows shall be provided from the quantity of water ... under paragraph (2) ... pursuant to paragraph (3) of this subsection; and from other sources Instream flow needs for all Central Valley Project controlled streams and rivers shall be determined by the Secretary based on recommendations of the U.S. Fish and Wildlife Service”

<i>Performance Goal Description: Modify CVP operations to provide flows of suitable quality, quantity, and timing to protect all life stages of anadromous fish and complete all needed IFIM studies.</i>	
Time Frame: Time Certain/Annual	Type: Output
Measure: Completion of IFIM studies; Annual modification of project operations in coordination with 3406 (b)(2) and (b)(3).	
Target: Completion of specified (up to 9) IFIM Studies on Central Valley rivers and streams (Time Certain); Variable Central Valley Project flow modifications depending on hydrology and biological conditions (Annual).	

3406(b)(2) Dedicated Project Yield

Language from the Act: “Upon enactment of this title dedicate and manage annually eight hundred thousand acre-feet of Central Valley Project yield for the primary purpose of implementing the fish, wildlife, and habitat restoration purposes and measures authorized by this title; to assist the State of California in its efforts to protect the waters of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary; and to help meet such obligations as may be imposed upon the Central Valley Project under State or Federal law following the date of enactment of this title, including but not limited to additional obligations under the Endangered Species Act.”

<i>Performance Goal Description: Dedicate and manage annually eight hundred thousand acre-feet of CVP yield for the primary purpose of implementing fish, wildlife, and habitat restoration purposes and measures; to assist California in its efforts to protect the waters of the Delta estuary; and to help meet State and Federal legally imposed post 1992 obligations under the ESA.</i>	
Time Frame: Annual	Type: Output
Measure: TAF of CVP water	
Target: 800 TAF by September 30 each year	

3406 (b)(3) Water Acquisition Program

Language from the Act: “The Secretary ... is authorized and directed to develop and implement a program in coordination and in conformance with the plan required under paragraph (1) of this subsection for the acquisition of a water supply to supplement the quantity of water dedicated to fish and wildlife purposes under paragraph (2) of this subsection The program should identify how the Secretary intends to utilize, in particular the following options: improvements in or modifications of the operations of the project; water banking; conservation; transfers; conjunctive use; and temporary and permanent land fallowing, including purchase, lease, and option of water, water rights, and associated agricultural land.”

<i>Performance Goal Description: Develop and implement a program for the acquisition of a water supply to supplement 3406(b)(2) water and to fulfill obligations pursuant to Section 3406(d)(2). (Note - see pages 37-38 for refuge related provisions and actions.)</i>	
Time Frame: Annual	Type: Output
Measure: TAF pursuant to CVPIA ROD	
Target: Per CVPIA ROD, acquire on an annual basis, up to 200 TAF additional instream flows to supplement 3406(b)(2) water. Acquire 159,000 AF Incremental Level 4 refuge water by 2002.	

This output type goal was selected because the agencies have issued formal decisions specifying the instream flow targets in the AFRP Plan and the CVPIA Programmatic Environmental Impact Statement, and Reclamation has incorporated use of acquired supplies into the OCAP for the CVP. Currently the agencies rely primarily on flows provided through the San Joaquin River Agreement (including VAMP) or on annual “spot market” acquisitions.

At some point, permanent water supplies (both instream and refuge) may be acquired. Water acquisition needs for instream flows are further identified and can be prioritized with the Decision Support Model developed by the U.S. Fish and Wildlife Service.

This provision is also the authority under which Reclamation and the Service acquire water to accomplish the refuge water supply goals under Section 3406 (d)(2). See pages 37-38 for additional discussion of Section 3406 (d)(2).

Some Working Group participants stated that the water acquisition performance goal should include more than annual water purchases, pursuant to the broader language in the Act. Multiple performance goals establishing and measuring targets for all of these water supply options were suggested. Some Working Group participants noted that the 200 TAF target from the ROD is an administrative target that is not based on fishery needs and is not supported by some stakeholders.

3406(b)(4) Tracy Pumping Plant Mitigation Program

Language from the Act: “Develop and implement a program to mitigate for fishery impacts associated with operations of the Tracy Pumping Plant. Such program shall include, but is not limited to improvement or replacement of the fish screens and fish recovery facilities and practices associated with the Tracy Pumping Plant.”

<i>Performance Goal Description: Develop and implement a program to mitigate for fishery impacts associated with operations of the Tracy Pumping Plant.</i>	
Time Frame: Time Certain	Type: Output
Measure: Actions implemented to mitigate fish passage	
Target: 23 actions included in program plan; 14 completed as of Nov 2008	

Some participants in the Working Group asked for the use of, and definition and clarification of an outcome-based goal, specifically the fish loss reduction targets and results to be achieved by this activity. However at this time and without clear definition of the outcome to be achieved, the agencies have concluded that completion of the proposed actions (outputs) are the best measure of success for this provision.

Some Working Group participants questioned whether mitigation payment in lieu of reducing fish losses is consistent with CVPIA authority. Other participants stated that Actions under (b)(4) should be focused on fisheries impacts at the Tracy pumps, rather than mitigation payments to off-site areas projects are implemented with mitigation payments for the Tracy pumps.

3406(b)(5) Contra Costa Canal Pumping Plant No. 1

Language from the Act: “Develop and implement a program to mitigate for fishery impacts resulting from operations of the Contra Costa Canal Pumping Plant No. 1. Such program shall provide for construction and operation of fish screening and recovery facilities, and for modified practices and operations.”

<i>Performance Goal Description: Develop and implement a program to mitigate for fishery impacts resulting from operations of Contra Costa Canal Pumping Plant No. 1.</i>	
Time Frame: Time Certain	Type: Output
Measure: Structures and operational changes to reduce fish losses.	
Target: Fish screens and one or more new intake structures. (But changed conditions may make these targets unreasonable or infeasible.)	

3406(b)(6) Shasta Temperature Control Device

Language from the Act: “Install and operate a structural temperature control device at Shasta Dam and develop and implement modifications in CVP operations as needed to assist in the Secretary’s efforts to control water temperature in the upper Sacramento River in order to protect anadromous fish in the upper Sacramento River”

<i>Performance Goal Description: Install and operate a temperature control device at Shasta Dam.</i>	
Time Frame: Time Certain Complete	Type: Output
Measure: Construction and operation of TCD.	
Target: One device.	

3406(b)(7) Meet Flow Standards and Objectives

Language from the Act: “Meet flow standards and objectives and diversion limits set forth in all laws and judicial decisions that apply to Central Valley Project facilities, including, but not limited to, provisions of this title and all obligations of the United States under the ‘Agreement Between the United States and the Department of Water Resources of the State of California for Coordinated Operation of the Central Valley Project and the State Water Project’ dated May 20, 1985, as well as Public Law 99-546.”

<i>Performance Goal Description: Meet flow standards and objectives and diversion limits set forth in all laws and judicial decisions that apply to the CVP facilities, including the COA.</i>	
Time Frame: Annual	Type: Output
Measure: Operational changes required pursuant to the COA and the WQCP	
Target: Variable, depends on hydrology and biological conditions of the year	

3406 (b)(8) Short Pulse Flows

Language from the Act: “Make use of short pulses of increased water flows to increase the survival of migrating anadromous fish moving into and through the Sacramento-San Joaquin Delta and Central Valley rivers and streams.”

<i>Performance Goal Description: Make use of short pulses of increased water flows to increase the survival of migrating anadromous fish.</i>	
Time Frame: Annual	Type: Output
Measure: Modification of CVP operations annually to make use of short pulse flows in coordination with 3406(b)(2) and (b)(3).	
Target: Variable, depends on hydrology and biological conditions of the year	

3406(b)(9) Flow Fluctuations

Language of the Act: “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. The program shall be patterned where appropriate after the agreement between the California Department of Water Resources and the California Department of Fish and Game with respect to the operation of the California State Water Project Oroville Dam complex.”

<i>Performance Goal Description: 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 CVP storage or re-regulating facility.</i>	
Time Frame: Annual	Type: Output
Measure: Ramping Rates implemented in coordination with 3406(b)(2) and (b)(3).	
Target: Variable, depends on hydrology and biological conditions.	

Some Working Group participants stated that the agencies should develop a performance goal that measures and reports on the elimination of fish stranding, and that the Act references DWR/DFG actions at Oroville as examples that could provide guidance.

3406(b)(10) Red Bluff Diversion Dam

Language of the Act: “Develop and implement measures to minimize fish passage problems for adult and juvenile anadromous fish at the Red Bluff Diversion Dam in a manner that provides for the use of associated Central Valley Project conveyance facilities for delivery of water to the Sacramento Valley National Wildlife Refuge complex in accordance with the requirements of subsection (d) of this section.”

<i>Performance Goal Description: Minimize fish passage problems for adult and juvenile anadromous fish at the Red Bluff Diversion Dam in a manner that provides for the use of the associated CVP facilities for delivery of water to the Sacramento Valley National Wildlife Refuge complex.</i>	
Time Frame: Time Certain/Annual	Type: Outcome/Output
Measure for outcome: Reduction in percent of adult spring-run and adult green sturgeon populations prevented from migrating past Red Bluff diversion dam. Measure for output: Infrastructure for passage improvement; Conveyance capacity adequate to deliver CVP supplies to the refuges.	
Outcome Target: Passage of 80-100 percent of adult spring-run by undetermined date; 50-100 percent of adult green sturgeon by undetermined date (Annual). Output target: Complete infrastructure improvement for fish passage and 115 TAF of refuge water conveyance capacity. Record of Decision for this action completed in 2008. (Time Certain).	

Some Working Group participants noted that no specific outcome-based goal has been defined for minimizing fish passage problems. Many participants noted that agreement on the performance goal, activities, and funding sources has not been reached, partly as a result of not having a clearly defined goal. Some participants asked the agencies to clarify how changing conditions, such as the listing of the green sturgeon, affect the CVPIA requirements and goals for Red Bluff. Other participants note that there was a preferred alternative identified in the draft EIS supported by the resources agencies, and proposed that Reclamation and the Service should approve the document and begin implementation.

3406(b)(11) Coleman National Fish Hatchery and Keswick Dam Fish Trap

Language of the Act: “Rehabilitate and expand the Coleman National Fish Hatchery by implementing the United States Fish and Wildlife Service’s Coleman National Fish Hatchery Development Plan, and modify the Keswick Dam Fish Trap to provide for its efficient operation at all project flow release levels and modify the basin below the Keswick dam spillway to prevent the trapping of fish.”

<i>Performance Goal Description: Rehabilitate and expand the Coleman National Fish Hatchery by implementing the Development Plan; modify the Keswick Dam Fish Trap to provide for its efficient operation at all project flow release levels; and modify the basin below the Keswick Dam spillway to prevent the trapping of fish.</i>	
Time Frame: Time Certain	Type: Output
Measures: Complete actions recommended in the Station Development Plan for Coleman NFH on Battle Creek; Modify fish trap and stilling basin at Keswick Dam.	
Targets: Complete actions identified in Station Development Plan and for Keswick.	

3406(b)(12): Clear Creek Restoration Program

Language in the Act: “Develop and implement a comprehensive program to provide flows to allow sufficient spawning, incubation, rearing, and outmigration for salmon and steelhead from Whiskeytown Dam as determined by instream flow studies conducted by the California Department of Fish and Game after Clear Creek has been restored and a new fish ladder has been constructed at the McCormick-Saeltzer Dam.”

<i>Performance Goal Description: Develop and implement a comprehensive program to provide flows to allow sufficient spawning, incubation, rearing, and out migration for salmon and steelhead from Whiskeytown Dam; restore the stream channel; and improve fish passage.</i>	
Time Frame: Time Certain/Annual	Type: Output
Measure: Flow released at certain water temperature and implemented annually with (b)(2) water; gravel replacement; dam removal; miles of stream channel restored.	

Target: One dam removed by 2000; 2 miles of stream channel restored (Time certain); 17,000 tons of gravel replenishment annually; flow target is variable and depends on hydrology and biological conditions. (Annual)

Some Working Group participants noted that plans for additional instream restoration actions are being conducted under the CALFED program (not CVPIA), and therefore should not be considered activities in compliance with this CVPIA provision.

3406(b)(13): Spawning Gravel

Language from the Act: “Develop and implement a continuing program for the purpose of restoring and replenishing, as needed, spawning gravel lost due to the construction and operation of Central Valley Project dams, bank protection projects, and other actions that have reduced the availability of spawning gravel and rearing habitat in the Upper Sacramento River from Keswick Dam to Red Bluff diversion Dam, and in the American and Stanislaus Rivers downstream from the Nimbus and Goodwin dams, respectively. The program shall include preventive measures, such as re-establishment of meander belts and limitations on future bank protection activities, in order to avoid further losses of instream and riparian habitat.”

Performance Goal Description: Restore and replenish, as needed, spawning gravel lost due to construction and operation of the CVP dams, bank protection projects, and other actions that have reduced the availability of spawning gravel and rearing habitat in the Upper Sacramento, American, and Stanislaus Rivers.

Time Frame: Annual	Type: Output
Measure: Cubic yards (CY) per year by major river course.	
Targets: Sacramento River: 50,000 CY; Stanislaus River: 20,000 CY; American River: Not yet determined. (These are all annual targets.)	

3406(b)(14) Delta Cross Channel and Georgiana Slough

Language from the Act: “Develop and implement a program which provides for modified operations and new or improved control structures at the Delta Cross Channel and Georgiana Slough during times when significant numbers of striped bass eggs, larvae, and juveniles approach the Sacramento River intake to the Delta Cross Channel or Georgiana Slough.”

Performance Goal Description: Develop and implement a program which provides for modified operations and new or improved control structures at the Delta Cross Channel and Georgiana Slough to protect striped bass.

Time Frame: Annual	Type: Output
Measure: Revised project operations and control structures.	
Target: Not developed due to changed circumstances and higher priority Delta species	

3406(b)(15) Head of Old River Barrier

Language from the Act: “Construct, in cooperation with the State of California and in consultation with local interests, a barrier at the head of Old River in the Sacramento-San Joaquin Delta to be operated on a seasonal basis to increase the survival of young out-migrating salmon that are diverted from the San Joaquin river to Central Valley Project and State Water Project pumping plants and in a manner that does not significantly impair the ability of local entities to divert water.”

<i>Performance Goal Description: Construct, in cooperation with the State and in consultation with local interests, a barrier at the head of Old River in the Delta to be operated on a seasonal basis to increase the survival of young out-migrating salmon that are diverted from the San Joaquin River to the CVP and SWP pumping plants.</i>	
Time Frame: Time Certain	Type: Output
Measure: Permanent operational barrier	
Target: This provision is not being implemented due to changed circumstances and litigation requiring changes in project operations.	

3406(b)(16) Comprehensive Assessment and Monitoring Program

Language from the Act: “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 to assess the biological results and effectiveness of actions implemented pursuant to this subsection.”

<i>Performance Goal Description: Establish, in cooperation with independent entities and the State, a comprehensive assessment program, to monitor fish and wildlife resources in the Central Valley to assess the biological results and effectiveness of actions implemented pursuant to this [3406(b)] subsection.</i>	
Time Frame: Annual	Type: Output
Measure: Annual report documenting monitoring activities and the assessment of the biological results and effectiveness of 3406 activities.	
Target: One per year	

Some Working Group participants noted that the CAMP goals should be to assess the overall results of CVPIA, rather than the effectiveness of any one program. Some suggested that the performance goal for CAMP should be an assessment of whether the program is collecting the information needed to evaluate the overall program activities.

3406(b)(17) ACID Diversion Dam

Language from the Act: “Develop and implement a program to resolve fish passage problems at the Anderson Cottonwood Irrigation District Diversion Dam”

<i>Performance Goal Description: Resolve fish passage problems at ACID Diversion Dam</i>	
Time Fame: Time Certain Complete	Type: Outcome
Measure: Reduction in fish passage problems	
Target: Screen or ladder installed at ACID Diversion Dam	

3406(b)(18) Restore Striped Bass Fishery

Language from the Act: “If requested by the State of California, assist in developing and implementing management measures to restore the striped bass fishery of the Bay-Delta estuary. Such measures shall be coordinated with efforts to protect and restore native fisheries.”

<i>Performance Goal Description: Assist the State in developing and implementing management measures to restore the striped bass fishery of the Bay-Delta Estuary in coordination with efforts to protect and restore native fisheries.</i>	
Time Fame: Time Certain	Type: Outcome
Measure: None developed at this time	
Target: The protection and restoration of other anadromous species has been a higher priority than protection of striped bass at this time; the State of California has not requested assistance from the Federal agencies	

3406(b)(19) Minimum Carryover Storage

Language from the Act: “Reevaluate existing operational criteria in order to maintain minimum 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.”

<i>Performance Goal Description: Reevaluate existing operational criteria in order to maintain minimum carryover storage at Sacramento and Trinity River reservoirs to protect and restore the anadromous fish of the Sacramento and Trinity Rivers.</i>	
Time Frame: Annual	Type: Output
Measure: Carryover storage levels in CVP Reservoirs	
Target: Varies by season and hydrology of the year	

3406b(20) GCID Hamilton City Pumping Plant

Language from the Act: "... mitigate fully for the fishery impacts associated with operations of the Glenn-Colusa Irrigation District's Hamilton City Pumping Plant"

<i>Performance Goal Description: Replace fish screen and salvage facilities at GCID's pumping plant.</i>	
Time Frame: Time Certain Complete	Type: Output
Measure: Reduction of fishery impacts	
Target: Replacement of fish screen	

3406(b)(21) Unscreened/Inadequately Screened Diversions

Language from the Act: "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."

<i>Performance Goal Description: Assist the State 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 Delta, and the Suisun Marsh.</i>	
Time Frame: Time Certain/Annual	Type: Output
Measure: Number of Fish Screens Constructed	
Target: All high priority unscreened diversions on prescribed streams (time certain); Provide assistance to the State of California (annual).	

The provision specifies assistance to the State of California in reducing losses from unscreened diversions. To date, the Federal agencies have assumed the lead role in development and implementation of the Anadromous Fish Screen Program (AFSP), but most of the funding has been provided by State agencies (DFG and CALFED). A significant share of screening project costs has been provided from the Restoration Fund. Collectively the Federal and State agencies have established priorities, objectives, and desired outcomes for actions needed to reduce losses of juvenile anadromous fish. The agencies have identified high priority screens to be constructed but are constrained by the limitations in the Restoration Fund and in State bond funds availability. No firm decision has been made yet regarding whether all high priority screens will be constructed, or if a certain number completed would be considered substantial completion of this provision.

3406(b)(22) Waterfowl Incentive Program

Language from the Act: “Provide such incentives as the Secretary determines ... to encourage farmers to participate in a program ... under which such farmers will keep fields flooded during appropriate time periods for the purposes of waterfowl habitat creation and maintenance and for Central Valley Project yield enhancement This provision shall terminate by the year 2002.”

<i>Performance Goal Description: Create a waterfowl incentive program.</i>	
Time Frame: Time Certain Complete	Type: Output
Measures: Acres flooded for waterfowl habitat	
Targets: The authority for this program expired in 1997.	

3406(b)(23) Trinity River Flow and Fishery Restoration

Language from the Act: “In order to meet Federal trust responsibilities to protect the fishery resources of the Hoopa Valley Tribe, and to meet the fishery restoration goals of the Act of October 24, 1984, Public Law 98-541, provide through the Trinity River Division ... an instream release of water to the Trinity River of not less than three hundred and forty thousand acre-feet per year for the purposes of fishery restoration, propagation, and maintenance and ... (A) ... complete the Trinity River Flow Evaluation Study being conducted ... under the mandate of the Secretarial Decision of January 14, 1981, in a manner which insures the development of recommendations, based on the best available scientific data, regarding permanent instream fishery flow requirements and Trinity River division operating criteria and procedures for the restoration and maintenance of the Trinity River fishery; and ... (B) ... If the Secretary and the Hoopa Valley Tribe concur in these recommendations, any increase to the minimum Trinity River instream fishery releases established under this paragraph and the operating criteria and procedures referred to in subparagraph (A) shall be implemented accordingly.”

<i>Performance Goal Description: Assist in meeting the Federal trust responsibilities to protect the fishery resources of the Hoopa Valley Tribe and the fishery restoration goals of P.L. 98-541, primarily through the completion of the Trinity River Flow Evaluation Study and the flows required in the Trinity River Record of Decision.</i>	
Time Frame: Time Certain/Annual	Type: Outcome/Output
Outcome Measure: Numbers of natural and hatchery produced adult spawner escapement to the Trinity River; numbers of adult fish derived from the Trinity River harvestable for the benefit of tribal, commercial, and sport fishing.	
Output Measure: Completion of flow study; TAF per ROD flows.	
Output Targets: Infrastructure improvements to allow full implementation of ROD flows (369 - 815 TAF; 47 sites for channel rehabilitation by 2012; other riparian corridor improvements in progress. (These are time certain outputs).	

<p>Outcome Targets: Adult spawner escapement of 62,000 natural fall-run Chinook; 6000 natural spring run Chinook; 40,000 natural steelhead; 1400 natural Coho; 9000 hatchery fall-run Chinook; 3000 hatchery spring-run Chinook; 2100 hatchery Coho; 10,000 hatchery steelhead. (These are annual outcome targets).</p>

Note that some of the Trinity River structural actions to provide infrastructure necessary for the required flows specifically referred to in Section 3406(b)(23) have in the past, and may in the future, rely on the authority of Section 3406(b)(1)(other), based on a previous Solicitor’s opinion. This is in part the reason for the position of some participants in the workgroup process that Section 3406(b)(23) actions should be considered complete. Another view is that this section is a broader statement of the Secretary’s Trust responsibility and therefore not yet complete. Since most infrastructure actions are at or near completion, it is not necessary yet to make that determination. Some participants have also stated that the schedule commitments in the Act and the Trinity ROD have not been met, so the timeframes in the performance goals should be discussed and revised by all members of the Trinity River Management Council.

3406(c)(1) San Joaquin River Comprehensive Plan

Language from the Act: “Develop a comprehensive plan, which is reasonable, prudent, and feasible, to address fish, wildlife, and habitat concerns on the San Joaquin River, including but not limited to the streamflow, channel, riparian habitat, and water quality improvements that would be needed to reestablish where necessary and to sustain naturally reproducing anadromous fisheries from Friant Dam to its confluence with the San Francisco Bay/Sacramento-San Joaquin Delta Estuary.”

<i>Performance Goal Description: Develop a comprehensive plan, which is reasonable, prudent, and feasible, to address fish, wildlife, and habitat concerns on the San Joaquin River.</i>	
Time Frame: Time Certain	Type: Output
Measure: Authorized Plan Report	
Target: One	

This provision directs the agencies to develop a plan for Secretarial approval and Congressional authorization. Implementation of the San Joaquin River Restoration Program as described in the settlement agreement between the Federal parties and the environmental plaintiffs, reached late in 2006, now depends on Congressional action on the legislation proposed in connection with the settlement.

3406(c)(2) Stanislaus River Basin Needs Assessment

Language from the Act: “In the course of preparing the Stanislaus River Basin and Calaveras River Water Use Program Environmental Impact Statement and in consultation with the State of California, affected counties, and other interests, evaluate and determine existing and anticipated future basin needs in the Stanislaus River Basin. In the course of such evaluation, the Secretary shall investigate alternative storage, release, and delivery regimes, including but not limited to conjunctive use operations, conservation strategies, exchange arrangements, and the use of base and channel maintenance flows in order to best satisfy both basin and out-of-basin needs consistent, on a continuing basis, with the limitations and priorities established in the Act of October 23, 1962 (76 Stat. 1173).”

<i>Performance Goal Description: Evaluate and determine existing and anticipated future basin needs in the Stanislaus River Basin.</i>	
Time Frame: Complete	Type: Output
Measure: Evaluation Report	
Target: One	

3406(d)(1) Central Valley Refuges Water Supply (Level 2)

Language from the Act: “In support of the objectives of the Central Valley Habitat Joint Venture and in furtherance of the purposes of this title, the Secretary shall provide either directly or through contractual agreements with other appropriate parties, firm water supplies of suitable quality to maintain and improve wetland habitat areas on units of the National Wildlife Refuge system in the Central Valley of California; on the Gray Lodge, Los Banos, Volta, North Grasslands, and Mendota State wildlife management areas; and on the Grasslands Resources Conservation District in the Central Valley of California. (1) Upon enactment of this title, the quantity and delivery schedules of water measured at the boundaries of each wetland area described in this paragraph shall be in accordance with Level 2 of the “Dependable Water Supply Needs” and two thirds of the water supply needed for full habitat development for those habitat areas identified in the San Joaquin Basin Action Plan/Kesterson Mitigation Action Plan Report Provided that the Secretary shall be obligated to provide such water whether or not such long-term contractual arrangements are in effect. In implementing this paragraph, the Secretary shall endeavor to diversify sources of supply in order to minimize possible adverse effects upon Central Valley Project contractors.”

<i>Performance Goal Description: Provide firm Level 2 water supplies of suitable quality to maintain and improve wetland habitat areas on the subject Central Valley refuges and wildlife habitat areas.</i>	
Time Frame: Annual	Type: Output
Measure: AF per year	
Target: 422,251 AF to refuge boundaries by 1993 (Level 2)	

Generally, the Level 2 target is met in most years. Level 2 water is provided almost entirely (except some groundwater and water rights water) from the yield of the CVP. Some Work Group participants stated that the requirement to diversify sources to minimize possible adverse effects upon CVP contractors merited specific inclusion in the performance measure.

3406(d)(2) Central Valley Refuges Water Supply (Incremental Level 4)

Language from the Act: “In support of the objectives of the Central Valley Habitat Joint Venture and in furtherance of the purposes of this title, the Secretary shall provide either directly or through contractual agreements with other appropriate parties, firm water supplies of suitable quality to maintain and improve wetland habitat areas on units of the National Wildlife Refuge system in the Central Valley of California; on the Gray Lodge, Los Banos, Volta, North Grasslands, and Mendota State wildlife management areas; and on the Grasslands Resources Conservation District in the Central Valley of California. ... (2) Not later than ten years after the enactment of this title, the quantity and delivery schedules of water measured at the boundaries of each wetland area described in this paragraph shall be in accordance with Level 4 of the “Dependable Water Supply Needs” table for those habitat areas as set forth in the Refuge Water Supply Report and the water supply needed for full habitat development for those habitat areas identified in the San Joaquin Basin Action Plan/Kesterson Mitigation Action Plan Report The quantities of water required to supplement the quantities provided under paragraph (1) of this subsection shall be acquired by the Secretary in cooperation with the State of California ... through voluntary measures ... which do not require involuntary reallocations of project yield.”

<i>Performance Goal Description: Acquire through willing seller/willing buyer transactions, in at least 10 percent increments prior to 2002, water supplemental to Level 2 deliveries.</i>	
Time Frame: Time Certain/Annual	Type: Output
Measure: AF per year	
Target: Incremental Level 4 -159,000 (approx) acre-feet (including Replacement Water)	

The target was not achieved by the target date of 2002. Incremental Level 4 water acquisition is accomplished primarily through annual spot market transactions but if permanent water supplies became available, such water could be acquired on a long-term basis for annual delivery. In this case, the acquisition could be considered a “time certain” action, but the delivery would be an annual action.

3406(d)(5) Central Valley Refuges, Water Supply Conveyance, and Construction

Language from the Act: “The Secretary is authorized and directed to construct or to acquire from non-federal entities such water conveyance facilities, conveyance capacity, and wells as are necessary to implement the requirements of this subsection”.

<i>Performance Goal Description: Construct or acquire, from non-Federal entities, such water conveyance facilities, conveyance capacity, and wells as are necessary to implement the requirements of this [3406(d)] subsection.</i>	
Time Frame: Time Certain/Annual	Type: Output
Measure: Facilities constructed; AF delivered per year	
Target: Construct conveyance facilities with capacity for delivery of 422,252 acre-feet (Level 2) by 1993; and delivery capacity for 555,515 acre-feet (including full incremental full Level 4) by 2002 and each year thereafter.	

The construction of new facilities is a time certain action; delivery of Level 2 and incremental Level 4 water supplies is an annual obligation.

3406(d)(6) Central Valley Habitat Joint Venture

Language in the Act: “The Secretary ... shall investigated and report on ... alternative means of improving reliability and quality of water supplies currently available to privately owned wetlands in the Central Valley and the need for additional supplies”

<i>Performance Goal description: Report on reliability and quality of water supplies for privately owned wetlands and 120,000 acres of Central Valley Joint Venture wetlands</i>	
Time Frame: Time Certain Complete	Type: Output
Measure: Report	Target: One

3406(e) Supporting Investigations

Language from the Act: “Not later than five years after the date of enactment of this title., the Secretary shall investigate and provide recommendations ... on the feasibility, costs, and desirability of developing and implementing each of the following”

<i>Performance Goal description: Report on temperature measures for anadromous fish survival, opportunities for hatchery production, elimination of migration barriers, measures to provide improved control structures at Delta Cross Channel and Georgiana Slough and other measures to protect salmon and steelhead.</i>	
Time Frame: Time Certain Complete	Type: Output
Measure: Report	Target: One

3406(f) Fishery Impacts Report

Language from the Act: “The Secretary ... shall investigate and report on all effects of the Central Valley Project on anadromous fish populations ... not later than two years from enactment of this title.”

<i>Performance Goal description: A report and recommendation from the Secretary to the appropriate Congressional committees on CVP effects on anadromous fish populations.</i>	
Time Frame: Time Certain Complete	Type: Output
Measure: Report	Target: One

3406(g) Ecosystem and Water System Operations Models

Language from the Act: “The Secretary, in cooperation with the State of California and other relevant interests and experts, shall develop readily usable and broadly available models and supporting data to evaluate the ecologic and hydrologic effects of existing and alternative operations of public and private water facilities and systems in the Sacramento, San Joaquin, and Trinity River watersheds.”

<i>Performance Goal Description: Develop readily usable and broadly available models and supporting data to evaluate the ecologic and hydrologic effects of existing and alternative operations of public and private water facilities and systems in the Sacramento, San Joaquin, and Trinity River watersheds.</i>	
Time Frame: Time Certain/Annual	Type: Output
Measure: Models and supporting data sets; this provision also supports VAMP/SJRA.	
Target: Models and data sets as deemed necessary to be developed (Time Certain). Data collection and model use and updating on annual or periodic basis (Annual).	

Chapter 3 CVPIA Funding

This Chapter provides a brief description of the CVPIA funding, including the sources of collections to the Restoration Fund, contributions, and the amounts appropriated since the passage of CVPIA. The Chapter also covers the agencies' use of Water & Related Resources appropriations, State of California cost-share funding for CVPIA activities, and certain targeted funding provided by the Service, such as funds for Trinity River restoration projects.

Section 3407(d)(2)(A) of the Act established and authorized the Restoration Fund, and also directs the Secretary to reduce the mitigation and restoration payment ceiling and assessment “... upon the completion of the fish, wildlife, and habitat mitigation and restoration actions mandated under Section 3406” Chapter 4 documents the agencies' approach to implementing the reduction pursuant to this Section.

3.1 Sources & Historic Levels of Funding

Funding for CVPIA activities comes from three primary sources: the Water and Related Resources appropriation, the Restoration Fund appropriation, and the State of California cost-share. The Water and Related Resources appropriation is part of the Energy and Water Appropriations Act and funds a majority of Reclamation's activities. This same act contains the Restoration Fund appropriation, which provides the largest proportion of Federal CVPIA funding. Most ongoing Fish and Wildlife Service activities are funded through the Resource Management Appropriation, which is part of the Department of the Interior Environment and Related Agencies Appropriations Act. Historical State of California cost-share funds have come from propositions passed by State voters, primarily Propositions 204 and 13.

Most CVPIA activities are eligible for funding from the Restoration Fund appropriations. The Restoration Fund serves as the depository in the Treasury of the United States for all collections received by the Secretary from the following seven sources, as established by the Act:

- Mitigation and Restoration Payments, Section 3407(c),
- Friant Surcharges, Section 3406(c)(1),
- Transfer Revenues, Section 3405(a),
- Pre-Renewal Charges, Section 3404(c)(3),
- Municipal And Industrial Surcharges, Section 3407(d)
- Tiered Water Revenues, Section 3405(d), and
- Non-Federal Contributions, Section 3407(a)

The total maximum annual appropriation authorized by CVPIA from all sources is \$50,000,000 (1992 price levels). Of this, \$30,000,000 (1992 price level) is currently the maximum amount (payment ceiling) that Reclamation is authorized to assess and collect from the CVP Water and Power beneficiaries for Mitigation and Restoration Payments, pursuant to Section 3407(c)(2).

The current \$30,000,000 mitigation and restoration payment ceiling is calculated on a 3-year rolling average, which results in a cyclical funding pattern when collections are limited by the water deliveries and appropriations are limited by Congress. For example, if two consecutive years of appropriations from this source were \$35,000,000 and \$25,000,000 (assuming all were at 1992 price levels), the following year's appropriation authority maximum is \$30,000,000.

In addition, the annual appropriation bill from Congress provides obligation authority based on estimated collections, and the obligation of these funds can only occur after the collections are made. This dynamic necessarily constrained the Fund in the early years and continues to present cash flow challenges today.

There have been no deposits to the Restoration Fund from pre-renewal charges because all affected CVP contracts either were renewed by 1998 or contractors had entered into "binding agreements" to renew. Likewise there have been no revenues from specific water transfer surcharges (because there have been no transfers outside the CVP service area) and only negligible deposits from M&I transfer surcharges, as these terms are defined in CVPIA. (Table 2).

Table 2. Summary of Restoration Fund Collections

Sources of Collections	Amount through FY 2008
Mitigation and Restoration Payments*	\$529,148,060
Friant Surcharges	\$114,290,813
Transfer Revenues	0
Pre-Renewal Charges	0
Municipal and Industrial Surcharges	\$ 9,191
Tiered Charges	\$ 2,152,279
Non-Federal Contributions	\$ 1,000,000
Cumulative Total	\$646,600,343

*This is made up of \$362,803,540 from water and \$166,344,520 from power.

3.2 Water & Related Resources Appropriation

The Water and Related Resources Appropriation (W&RR) funds the majority of the work accomplished by the Bureau of Reclamation, including within the Central Valley Project. At the time of CVPIA passage, several pre-planned or ongoing activities were incorporated into the language of the Act. One example is the Shasta Temperature Control Device [Section 3406(b)(6)], which was in the design phase prior to passage of CVPIA. Construction began in 1994, completed in 1997, and a majority of the funds were provided through the W&RR appropriation.

W&RR funding was used in several cases to “jump start” CVPIA in order to eliminate the lag time between Restoration Fund collections and obligations. While some WRR funds continue to be appropriated for CVPIA activities, the majority of the funding comes from the Restoration Fund. A cumulative total of \$295.9 million of W&RR has been obligated by the agencies for CVPIA activities through FY 2008.

3.3 State Of California Cost-Share

CVPIA requires cost sharing by the State of California in many provisions of the Act. The State-Federal Master Cost-Share Agreement (generally referred to as SCAMPI) was signed on June 27, 1994. This agreement was structured so that either party may fund all, none or any percentage of a specific restoration action in any year based on the availability of funding. The agreement also allows the State to fund its share or provide in-lieu services for up to 50 percent of its calculated cost-share. A cumulative total of \$73.4 million of State funding has been provided for CVPIA activities through FY 2008 (Table 3).

Table 3. Total Appropriations obligated in support of CVPIA

Sources of Appropriations	Amount through FY 2008 (in millions)
Restoration Fund	\$ 636.3
Water & Related Resources	\$ 295.9
State Cost-Share	\$ 73.4
Donation	\$ 1.0
Cumulative Total	\$1013.1

3.4 Current & Future Funding

The W&RR appropriation funding decreased after the initial “jump start” period to a relatively constant funding level recently of approximately \$11,000,000 a year. This level of funding has provided about \$7,000,000 a year for the Trinity River restoration activities and approximately \$4,000,000 for other priority activities. The agencies assume that W&RR appropriations will remain level or decline slightly through 2012. In recent years the Service has provided an additional \$2 million annually for Trinity River activities.

In recent years (2005 and 2006) Restoration Fund appropriations have provided funding levels between \$41 million and \$54 million, approximately 85 percent of which is provided by restoration and mitigation payments. This level of funding is assumed to continue until the restoration and mitigation payment ceiling and assessment is reduced pursuant to Section 3407(d)(2)(A). However, the amount available for CVPIA activities will be reduced sooner, by the annual amount of the Friant surcharges, assuming that Congress enacts legislation to implement the San Joaquin River Settlement Agreement, which directs the Friant surcharges to San Joaquin River Restoration Program activities.

Cost sharing with the State of California is required by many provisions of the Act, ranging from 25 percent to 50 percent to undetermined amounts described only as “assistance.” Cost-share funding usually comes from two specific sources: 1) State Proposition 204, which included \$93,000,000 specifically for CVPIA cost-share; and 2) State Proposition 13, which included generic environmental restoration funding but not a specified amount for CVPIA. The existing cost-share agreement expires in December 2008. Discussions are now underway with the parties to the cost-share agreement, generally referred to as SCAMPI (Sharing of Costs Agreement for Mitigation Projects and Improvement.)

Although the Secretary collects the maximum amount allowed in annual Mitigation and Restoration payments from Central Valley water and power contractors, and surcharges from the Friant Division contractors, significant levels of funding from the other five sources of Restoration Fund deposits have not materialized. The agencies use a variety of mechanisms to increase effectiveness and efficiency, including direct implementation, contracts, cooperative agreements, cost sharing agreements, and competitive grants to accomplish the purposes of the Act. The Agencies make every effort to prioritize spending among CVPIA activities so as to maximize the value of available funding.

Chapter 4 Reduction of Mitigation & Restoration Payments

Section 3407 of the CVPIA established and authorized the Restoration Fund, and also directs the Secretary to reduce the mitigation and restoration payment ceiling and assessment “... upon the completion of the fish, wildlife, and habitat mitigation and restoration actions mandated under Section 3406...” [Sec. 3407(d)(2)(A)]. The reduction language applies only to Section 3406 provisions and only to the mitigation and restoration payment ceiling and assessment, and not to other provisions of the Act, nor to the other six sources of funding for the Restoration Fund.

When, and if, a reduction is implemented, the mitigation and restoration payment ceiling and assessment would be reduced from \$30 million in 1992 dollars to \$15 million in 1992 dollars. Consequent adjustments to CVPIA implementation priorities would be required, in order to make the available funding go as far as possible towards meeting CVPIA program needs. However, assuming that the decision was based on the methodology described in this report, of weighting the completion of “time certain” provisions more heavily than the status of “annual” actions, the question arises what happens if the Restoration Fund is not sufficient to fully fund the implementation of the remaining provisions.

In part, as a way of dealing with this eventuality, we have included in the proposal certain criteria which could be used to assist in the determination of whether or not the annual provisions currently and historically funded by the CVPIA Restoration Fund, would be significantly impacted by the Secretarial decision to reduce funding for the Restoration Fund. This mostly involves assuring a continuing revenue stream for the remaining annual actions.

4.1 History, Definition, & Method of Use

Agency staff identified and the Working Group discussed two basic conceptual approaches to implementing the funding reduction pursuant to Section 3407(d)(2)(A). Eventually these were further developed into four distinct approaches (identified as Concepts A, B, C and D for simplicity of reference). These are each described in some detail in Appendix 4.

The agencies have tentatively selected a method or approach that represents a hybrid or synthesis of these concepts as funding reduction trigger criteria. This approach allows the Secretary some flexibility in application of the trigger criteria that are most appropriate for a specific provision. Although this particular approach has not been agreed upon by all of the involved stakeholders, the approach proposed by the agencies is balanced and flexible enough to achieve the purposes of Section 3407 of the Act. The phrase “trigger criteria” refers to a condition or series of events that, if and when they occurred, would allow the Secretary to reduce the restoration and mitigation payment ceiling and assessment.

4.2 Annual and Time Certain Programs

The conceptual approaches developed by agency staff and discussed by the Working Group were based on an understanding that, under the Act, some provisions and program activities will continue in perpetuity while others have a limited term or end point. As noted previously, provisions that occur in perpetuity, or at least indefinitely, are called “annual”. Provisions or program activities that have a limited term or end point are called “time certain”. The discussion of Performance Goals in Chapter 2 of this report identified those provisions for which implementation is annual, those that are time certain, and those that are time certain but with annual components.

“Annual” provisions or program activities lack an end point or point in time when they will be completed. Annual provisions are ongoing and require funding in perpetuity. The Refuge Water Supply Program of Section 3406(d)(1) and (d)(2) is an excellent example of an annual program activity because the activity of supplying refuge water continues indefinitely and funding is needed annually to acquire water supplies and manage the water supplies for this program activity. Annual provisions need a stable source of funding to achieve annual requirements. If the Secretary were to reduce (but not eliminate) the Restoration Fund, “annual” provisions would still require funding at a level sufficient to maintain the activity.

“Time certain” provisions or program activities consist of one or more single event actions with an end point, a point or points in time at which the actions are completed and funding is no longer necessary. The end point may be in the near term or may take many years to accomplish. The Refuge Facilities Construction Program of Section 3406(d)(5) is an example, because once all required structures are built, the program activity will be considered complete and future funding will not be necessary for management, except for annual operations and maintenance expenses, such as the actual conveyance of refuge water to its destination. Time certain provisions sometimes need large sums of funding early in the program activity, for planning, design and construction of large scale projects, and for funding through the construction phase, but do not usually require funding in perpetuity (again except for operations and maintenance expenses).

“Time certain provision with annual component” is a combination of the two types of program activities. Typically, they need large sums of initial funding for planning, design and construction of projects and then require funding in perpetuity for annual components. An example of this type of provision is the Trinity River Restoration Program under 3406(b)(23). The flow required by the Trinity River Record of Decision is an ongoing annual requirement. The construction activities associated with channel restoration and related actions will require significant funding through 2012 or beyond. At some point, a smaller funding requirement may be sufficient for annual actions such as gravel augmentation and monitoring programs.

4.3 Agency Selected Funding Reduction Criteria Alternative

The agencies' selected performance goals identified in Chapter 2 are used for purposes of the discussion in this chapter. This section of the report documents the agencies' proposed funding reduction (trigger) criteria and applies the selected concept to each provision of the Act that has yet to be accomplished.

The agencies' proposed approach to funding reduction criteria is based in part on attaining outputs for some provisions, outcomes for other provisions, and attaining the 3406(b)(1) outcome/output goals. Determining whether a provision or program activity is output-based or outcome-based involves interpreting the language of the law and factoring in the performance goals on a provision by provision basis as described in Chapter 2. If the Act describes a specific action to be accomplished, then the provision is considered to be an output type. If the provision of the Act lacks specificity as to the actions to be accomplished, but rather provides general guidance as to the goal or purpose of the provision, then that provision is considered to be an outcome type. However, if the agencies have identified specific actions to achieve the goal (the outcome), then the agencies may consider that provision to be measured by achievement of "outputs".

The time aspect is also a factor. Whether a provision is "annual" or "time certain" has a significant effect on the funding reduction trigger criteria. As proposed, the "time certain" aspect is weighted somewhat heavier than the "annual" aspect", and there is an assumption that there will be for the foreseeable future a Restoration Fund sufficient to provide funding for "annual" actions. Consequently, Reclamation and the Service are recommending that the Secretary would approve funding reduction under 3407(d)(2) based on the completion of all "time certain" programs, and a showing of some level of ability to continue carrying out "annual" programs. Again this proposal is based on the assumption that even after Restoration Funding were reduced, the Restoration Fund would still adequate to implement the remaining "annual" actions.

4.4 Status of Completion for Funding Reduction

This section of the CPAR Report describes the current status of the progress toward meeting the funding reduction criteria. The following table lists the “time certain” provisions to which the criteria would be applied and describes briefly the trigger criteria and the status for each provision, along with information regarding the accomplishments of the program and what remains to be done. “Annual” programs are included in the table but are not classified as complete or incomplete.

3406(b)(1) Anadromous Fish Restoration Program	
Time Frame: Time Certain/Annual	Type: Outcome/Output
Status: Incomplete/Annual	
Funding Reduction Criteria: Accomplishment of 128 high and medium AFRP actions by 2012 (53 structural actions and 75 non-structural actions)	
Progress to Date: 30 AFRP time certain actions have been completed (14 structural and 16 non-structural); 98 actions remain to be completed.	
<p>In reporting these results, AFRP compared estimates of anadromous fish production from the baseline period (1967-1991) to recent estimates, typically 1992-2006. For a complete list of production estimates, information on production estimation techniques, as well as a comprehensive list of assumptions, see the most recent Chinook production spreadsheet located on the AFRP Web site (http://www.delta.dfg.ca.gov/afrp). Results of efforts to double the natural production of anadromous fish are variable; positive results are primarily realized in areas where restoration actions have been implemented. For example, nearly all of the medium and high priority actions identified for Clear Creek are complete and the natural production of fall-run Chinook has increased from a baseline of 3,574 to a 1992 to 2006 mean of 12,314.</p> <p>In a similar manner, most medium and high priority actions identified to improve spring-run Chinook productions in Butte Creek are complete, resulting in increases from a baseline production of 1,017 to 11,505 between 1992 and 2006.</p> <p>These positive trends are evident when looked at on a stream-by-stream basis. However, when the production of all watersheds is added together, and baseline and recent production is compared, the results for separate watersheds are often difficult to differentiate. Overall, the natural production of fall-run Chinook had increased from a baseline average of 374,217 to 452,226 in 2006. It is not known where the increases occurred until evaluated on a stream-by-stream basis. Natural production averages between 1992 and 2006 for the other three races of Chinook salmon are still below those for the baseline period; however, trends for all races of Chinook salmon were marginally increasing until 2006. For the past two years, in part due to drought and ocean conditions, trends across the board are downward.</p>	

3406(b)(1)(other) Address Other CVP Impacts	
Time Frame: Time Certain/Annual	Type: Output/Outcome
Funding Reduction Criteria: Restore/recover significant acres of CVP impacted habitat.	
Progress to Date: CVP contribution to mitigation of impacts on approximately 2.7 million acres in the Central Valley has reached 90,000 acres acquired in fee or covered by easements/partnership agreements, and about 4000 acres restored.	

3406(b)(1)(B) Modified CVP Operations	
Time Frame: Time Certain/Annual	Type: Output
Status: Incomplete/Annual	
Funding Reduction Criteria: Completion of IFIM Studies (Time Certain); Modified Operations (Annual).	
Progress to Date: IFIM Studies on four streams have been completed; two are in progress; possibly two or three more IFIM studies remain to be completed.	
The Agencies have modified operations consistent with this provision and in coordination with 3406(b)(2) and (b)(3). Reclamation has incorporated those operations into the Operations Criteria and Plan (OCAP).	

3406(b)(2) Dedicated Project Yield	
Time Frame: Annual	Type: Output
Status: Annual	Funding Reduction Criteria: N/A
Progress to Date: Requirement is to provide 800,000 acre-feet of annual CVP yield for fish and wildlife purposes and habitat restoration measures. This target has generally been met each year since 1993. Reclamation has incorporated use of b(2) water into Project operations.	

3406(b)(3) Water Acquisition	
Time Frame: Annual	Type: Output
Status: Annual	Funding Reduction Criteria: N/A
Performance goal is to acquire up to 200 TAF of instream flow to supplement (b)(2) water; and to acquire 130,000 acre-feet of Incremental Level 4 refuge water. If these quantities of water were acquired on a permanent basis, this could be considered a time certain action; if acquired annually on spot market, funding reduction is N/A and this continues to be classified as an annual activity.	
Progress to Date: Currently Reclamation annually acquires supplemental water on the San Joaquin River through VAMP actions and the San Joaquin River Agreement. At some point, permanent water supplies may come available. For Level 4 Refuge Water Acquisition, see also 3406(d)(2). Delivery of acquired water (spot market or permanent) is an annual requirement.	

3406(b)(4) Tracy Pumping Plant Mitigation Program	
Time Frame: Time Certain	Type: Output
Status: Incomplete	Funding Reduction Criteria: Completion of 23 required actions.
Progress to Date: 14 actions have been completed. Projected completion in 2013	

3406(b)(5) Contra Costa Pumping Plant No.1	
Time Frame: Time Certain	Type: Output
Status: Incomplete	Funding Reduction Criteria: Completion of all actions
Progress to Date: Operations modified in 1997: Fish screen on Old River intake; water supply through Rock Slough reduced to approximately 20 percent of CCWD total.	

3406(b)(6) Shasta Temp Control Device	
Time Frame: Time Certain	Type: Output
Status: Complete in 1997	Funding Reduction Criteria: N/A

3406(b)(7) Flow Standards and Objectives	
Time Frame: Annual	Type: Output
Status: Annual	Funding Reduction Criteria: N/A

3406(b)(8) Pulse Flows	
Time Frame: Annual	Type: Output
Status: Annual	Funding Reduction Criteria: N/A
Progress to Date: Targets for use of short pulse flows are generally being met, through tools such as VAMP. The agencies have modified operations consistent with the provision, and Reclamation has incorporated those operations into the OCAP for the CVP.	

3406(b)(9) Flow Fluctuations	
Time Frame: Annual	Type: Output
Status: Annual	Funding Reduction Criteria: N/A
Progress to Date: Ramping rates to control flow fluctuations are integrated into CVP operations in coordination with use of (b)(2) and (b)(3) water.	

3406(b)(10) Red Bluff Diversion Dam	
Time Frame: Time Certain/Annual	Type: Output
Status: Incomplete	Funding Reduction Criteria: ROD and Implementation of preferred alternative
Progress to Date: Output target (refuge conveyance) has been met. Delivery of refuge water supplies is currently accomplished primarily via the Glenn-Colusa Irrigation District's system to prevent impacts of the re-operation of Red Bluff Diversion Dam (RBDD) on the refuge deliveries. This is an annual obligation.	
Progress to Date on outcomes: Some of the fish passage problems for anadromous fish species have been minimized. Reclamation modified the operation of the RBDD to protect anadromous fish in 1995. However, when RBDD gates are down, adult spring-run Chinook continue to be delayed during their migration past Red Bluff, and green sturgeon continue to be blocked from migration past Red Bluff. The agencies have issued an EIS/ROD to address these remaining fish passage issues. Implementation expected in 2009.	

3406(b)(11) Coleman National Fish Hatchery/Keswick Modifications	
Time Frame: Time Certain	Type: Output
Status: Incomplete	Funding Reduction Criteria: Completion of all required actions.
Progress to Date: Modifications to fish trap and the basin below the spillway at Keswick Dam has been completed. Two of nine Station Development Plan actions for Coleman NFH on Battle Creek remain to be completed.	

3406(b)(12) Clear Creek Restoration	
Time Frame: Time Certain/Annual	Type: Output
Status: Incomplete/Annual	Funding Reduction Criteria: Completion of required actions: habitat restoration and dam removal.
Progress to Date: McCormick-Seltzer Dam removed in 2000; gravel replacement and channel restoration in progress. Flow releases using 3406 (b)(2) water and gravel replacement are annual requirements; therefore funding reduction criteria for these actions are N/A; average of approximately 70 TAF of (b)(2) water used annually to meet flow requirements.	

3406(b)(13) Spawning Gravel	
Time Frame: Annual	Type: Output
Status: Annual	Funding Reduction Criteria: N/A
Progress to Date: Gravel replenishment is an ongoing, annual activity. Initial gravel targets for Sacramento and Stanislaus Rivers are established but not achieved. Gravel targets for American River are in development.	

3406(b)(14) Delta Cross Channel	
Time Frame: Time Certain	Type: Output
Status: Inactive	Funding Reduction Criteria: N/A
Progress to Date: No work active at this time due to ongoing litigation and needs of higher priority species.	

3406(b)(15) Head of Old River Barrier	
Time Frame: Time Certain	Type: Output
Status: Inactive	Funding Reduction Criteria: Installation of Barrier at Old River
Progress to Date: The State of California has been installing a seasonal rock barrier at the head of Old River since 1968. Reclamation has incorporated this seasonal barrier into the OCAP operations. Permanent operable barrier on hold for now due to needs of high priority species.	

3406(b)(16) Comprehensive Assessment and Monitoring Program	
Time Frame: Annual	Type: Output
Status: Annual	Funding Reduction Criteria: N/A
Progress to Date: The agencies have developed a Conceptual Plan and an Implementation Plan for this provision. Reports have been completed in three years since program inception.	

3406(b)(17) Anderson Cottonwood Irrigation District	
Time Frame: Time Certain	Type: Output
Status: Complete	Funding Reduction Criteria: N/A
Progress to Date: Fish ladders and screens have been installed. Fish passage issues have been resolved.	

3406(b)(18) Striped Bass Fishery	
Time Frame: Time Certain	Type: Output
Status: Inactive	Funding Reduction Criteria: N/A
Progress to Date: State has not requested assistance due to higher priority needs related to anadromous fish species.	

3406(b)(19) Minimum Carryover Storage	
Time Frame: Annual	Type: Output
Status: Annual	Funding Reduction Criteria: N/A
Progress to Date: Carryover targets are generally met on an annual basis. The agencies annually set carryover levels and modify operations consistent with the provision, and Reclamation has incorporated those operations into the OCAP for the CVP.	

3406(b)(20) GCID Hamilton City Pumping Plant	
Time Frame: Time Certain	Type: Output
Status: Complete	Funding Reduction Criteria: N/A
Progress to Date: Fish screen installed in 2001	

3406(b)(21) Anadromous Fish Screen Program	
Time Frame: Time Certain/Annual	Type: Output
Status: Incomplete/Annual	
Funding Reduction Criteria: For the time certain component, funding could be reduced after all high priority diversions were screened. Assistance to the state would be an annual, ongoing obligation.	
Progress to Date: 21 high priority diversions have been screened on the Sacramento and San Joaquin Rivers.	

3406(b)(22) Waterfowl Habitat Incentive Program	
Time Frame: Time Certain	Type: Output
Status: Complete	Funding Reduction Criteria: N/A
Progress to Date: Authority expired in 1997	

3406(b)(23) Trinity River Flow and Fishery Restoration	
Time Frame: Time Certain/Annual	Type: Outcome/Output
Status: Incomplete/Annual	Funding Reduction Criteria: For time certain actions, completion of all structural actions whether under this provision or under b(1)(other) related to provision of ROD flows.
<p>Progress to Date: The Record of Decision for the Trinity River Restoration Program was signed in 2000 and describes the annual flow and instream release requirements. Gravel replacement is ongoing. As to Trinity River non-flow targets, five channel rehabilitation sites have been completed. Provision of ROD flows and gravel replacement are an annual requirement.</p> <p>Generally, naturally produced spawning escapement goals have not been met since 1992. Spring and fall-run Chinook are declining. Coho are improving. Hatchery escapement goals have generally exceeded targets for all species except steelhead but steelhead numbers are improving. Harvest of Chinook salmon has declined to the point that the fishery was closed in 2006.</p>	

3406(c)(1) San Joaquin Comprehensive Assessment	
Time Frame: Time Certain	Type: Output
Status: Incomplete	
Funding Reduction Criteria: Completion of comprehensive report	
Progress to Date: Work on program implementation plan is in progress. Implementing legislation was introduced in Congress in late 2006.	

3406(c)(2) Stanislaus River Comprehensive Assessment	
Time Frame: Time Certain	Type: Output
Status: Complete	Funding Reduction Criteria: Complete comprehensive assessment
Progress to Date: (Draft) Plan completed in 1998.	

3406(d)(1) Central Valley Refuges – Level 2 Supply	
Time Frame: Annual	Type: Output
Status: Annual	Funding Reduction Criteria: N/A
Progress to Date: Level 2 supplies are delivered annually to the specified refuges from the yield of the Project.	

3406(d)(2) Central Valley Refuges - Level 4 supply	
Time Frame: Time Certain/Annual	Type: Output
Status: Incomplete	Funding Reduction Criteria: Acquire and deliver Level 4 refuge supplies
Progress to Date: 9300 acre-feet of permanent water has been acquired as incremental Level 4 supply; 6300 acre-feet from Corning Canal contractors and 3000 acre-feet from Anderson Cottonwood Irrigation District. Other supplies are acquired as available on an annual basis. Delivery requirement is annual, whether permanent water or “spot market”. If deemed a time certain action, completion for funding reduction purposes would be measured by permanent acquisition of 130,000 acre-feet of Level 4 supplies.	

3406(d)(5) Central Valley Refuges - Conveyance and Construction	
Time Frame: Time Certain/Annual	Type: Output
Status: Incomplete	
Funding Reduction Criteria: Completion of all required refuge construction projects for conveyance of Level 2 and Level 4 supplies.	
Progress to Date: Four major construction projects remain (Time Certain). Assuming current funding levels, completion estimated in 10-12 years. There are conveyance constraints on deliveries of some refuge water supplies due to construction delays.	
For Annual Conveyance Requirements: Generally Level 2 refuge water delivery targets are met; Incremental Level 4 deliveries average about 50 percent of target quantities. These are annual obligations.	

3406(d)(6) Central Valley Habitat Joint Venture Report	
Time Frame: Time Certain	Type: Output
Status: Complete	Funding Reduction Criteria: N/A
Progress to Date: Report completed in 2000.	

3406(e) Supporting Investigations	
Time Frame: Time Certain	Type: Output
Status: Complete	Funding Reduction Criteria: N/A
Progress to Date: Report completed in 2001.	

3406(f) Fishery Impacts Report	
Time Frame: Time Certain	Type: Output
Status: Complete	Funding Reduction Criteria: N/A
Progress to Date: Report completed in 1998.	

3406(g) Ecosystem and Water System Models	
Time Frame: Time Certain/Annual	Type: Output:
Status: Incomplete	
Funding Reduction Criteria: Completion of all nine required models.	
Progress to Date: Five models have been completed. At least four remain to be developed along with supporting data sets (Time Certain). Model updating and data collection is an annual activity. This provision also provides authority for VAMP which currently expires in 2009.	

Chapter 5 Preliminary Conclusions and Next Steps

5.1 Next Steps

Working Group members proposed, and Reclamation and Service staff acknowledged, that additional actions should follow completion of this report and be dealt with in CPAR II or some similar document:

- a. Finish studies to determine the need for specific CVPIA Section 3406 activities, such as (b)(5).
- b. Finish studies and or implement selected preferred alternatives where applicable, such as (b)(10).
- c. Develop programmatic cost estimate for entire Program and individual provisions, where applicable, to project costs out to completion of Program.
- d. Develop and refine priorities and schedule for implementation of provisions and program activities. This would be in addition to the framework provided by the long-term Implementation Plans required by the OMB PART process.

5.2 Completion Strategies – The Working Group believed that Reclamation and the Service should continue discussions with CVP water and power customers, environmental stakeholders, tribal interests, and other interested agencies to develop and refine the strategies to complete the provisions of the Act and achieve the fish and wildlife restoration purposes. Reclamation and the Service should continue to coordinate Program planning activities, which include the strategies, plans, and priorities for action by Reclamation, the Service, and other partners. These planning activities should be closely coordinated with the discussions of future funding.

5.3 Past and Future Funding – The Working Group proposed to review and discuss past funding sources for each provision of the Act, compliance with the cost-share requirements of the Act and other reimbursability requirements, and strategies, plans, and priorities for future funding of the provisions and program activities and the Program as a whole. This funding discussion should be coordinated with the overall planning activities to determine the completion strategies.

5.4 Other Issues – Some Working Group members stated that the specific language of fish and wildlife restoration provisions of the CVPIA varies widely in clarity and definition of outcomes to be achieved and actions or outputs to be implemented. Some provisions describe specific actions and others establish programs or program activities to achieve broad purposes. To deal with the ambiguity of the language in the Act, Working Group members made recommendations for realignment of the Act's biological expectations, adjustment or establishment of timeframes, and/or project designs that may result in some future financial relief. Additional prioritization efforts may be warranted in order to strategically manage the implementation efforts.

5.5 Findings and Preliminary Conclusions

Certain conclusions appear. There are 34 3406(b), (c), and (d), (e) and (f) provisions considered in this report. Activities required under seven provisions of Section 3406 are completed:

- (b)(6) Construction of the Shasta Temperature Control Device;
- (b)(17) Construction at Anderson Cottonwood Irrigation District;
- (b)(20) Construction at Glenn Colusa Irrigation District pumping plant;
- (c)(2) Stanislaus River Comprehensive Assessment
- (d)(6) Central Valley Habitat Joint Venture report;
- (e) Report on supporting investigations;
- (f) Report on fisheries study.

In addition, authority has expired for one provision, 3406(b)(22), Ag Waterfowl Habitat Incentive Program. Three provisions, Delta Cross Channel (b)(14), Head of Old River Barrier (b)(15), and Striped Bass (b)(18), are currently inactive.

All or parts of 17 provisions are primarily “annual” in nature, or have significant annual components associated with time certain type provisions. These continuing costs of these annual provisions should be considered in the decision for funding reduction, but in the criteria for funding reduction as proposed, the status of annual provisions would not be the determinative factor. The more determinative factor would be the status of the “time certain” provisions, again meaning those provisions which have a distinct start and a measurable completion date or event.

There are 15 “time certain” provisions in incomplete status and 3 provisions in “inactive” status that, once complete, could provide the basis for the Secretarial decision to reduce surcharges and assessments under Section 3407(d)(2), assuming that the remaining annual provisions would still have sufficient funding support. Several of the 3406 provisions are considered as “time certain” with annual components. The proposed criteria assume that funding would continue to be available for these annual components, either from the Restoration Fund or other reliable sources. Given the agencies’ proposed approach for triggering a reduction in Restoration Fund contributions, and the premise that completion of the “time certain” Section 3406 provisions and activities should be the dispositive factor in any such conclusion, Reclamation and the Service conclude that implementation of Section 3406 is not sufficiently complete at this time to reduce Restoration Fund contributions from water and power contractors.

The timeframe for reducing the Restoration Fund is unknown, but can be realistically expected to require many more years. To illustrate, by some estimates based on the current rate of recovery and the current amount of funding provided to the AFRP and related programs, achievement of the goals of Section 3406(b)(1) could take another decade or longer. It may not be unrealistic to expect that even with this very strict approach to funding reduction, this Program may need another several hundred million

dollars and many more years to achieve the Congressional established goals and objectives of CVPIA.

Appendix 1 - Terms, Acronyms, and Abbreviations

Terms:

Accomplishments: The major achievements of the programs implemented to fulfill the provisions of the CVPIA.

Acre-foot (AF): The quantity of water required to cover one acre to a depth of one foot. Equal to 1,233.5 cubic meters (43,560 cubic feet).

Action: Planning, implementation, and/or monitoring tasks directed by the Program Activity and/or established to fulfill the specified outcome for the Program Activity.

Anadromous fish: Those stocks of salmon (including steelhead, striped bass, white and green sturgeon, and American shad) that ascend the Sacramento and San Joaquin Rivers and their tributaries and the Sacramento-San Joaquin Delta to reproduce after reaching maturity in San Francisco Bay or the Pacific Ocean.

Anadromous Fish Restoration Program (AFRP): A program authorized by the CVPIA to address anadromous fish resource issues in Central Valley streams that are tributary to the Delta.

Central Valley Project (CVP): As defined by Section 3403(d) of the CVPIA, “all Federal reclamation projects located within or diverting water from or to the watershed of the Sacramento and San Joaquin rivers and their tributaries as authorized by the Act of August 26, 1937, (50 Stat. 850) and all Acts amendatory or supplemental thereto, . . .”.

Central Valley Project water: As defined by Section 3403(f) of the CVPIA, “all water that is developed, diverted, stored, or delivered by the Secretary in accordance with the statutes authorizing the Central Valley Project in accordance with the terms and conditions of water rights acquired pursuant to California law.”

Central Valley Project Improvement Act (CVPIA): Public Law 102-575, Title 34. This law was passed in 1992 for the following purposes:

- a) Protect, restore, and enhance fish, wildlife, and associated habitats in the Central Valley and Trinity River basins of California.
- b) To address impacts of the Central Valley Project on fish, wildlife and associated habitats.
- c) To improve the operational flexibility of the Central Valley Project.
- d) To increase water-related benefits provided by the Central Valley Project to the State of California through expanded use of voluntary water transfers and improved water conservation.
- e) To contribute to the State of California’s interim and long-term efforts to protect the San Francisco Bay/Sacramento-San Joaquin Delta Estuary.
- f) To achieve a reasonable balance among competing demands for use of Central Valley Project water, including the requirements of fish and wildlife, agricultural, municipal and industrial and power contractors.

Central Valley Habitat Joint Venture (CVHJV): The association of Federal and State agencies and private parties established for the purpose of developing and implementing the North American Waterfowl Management Plan as it pertains to the Central Valley of California.

Environmental Impact Statement (EIS): An analysis required by the National Environmental Policy Act (NEPA) for all major Federal actions, which evaluates the environmental risks of alternative actions.

Firm water supplies: Non-interruptible water supplies guaranteed by the supplier to be available at all times except for reasons of uncontrollable forces or continuity of service provisions.

Flow: The volume of water passing a given point per unit of time, usually in cubic feet per second (cfs).

Habitat: Area where a plant or animal lives.

Level 2: A term used to refer to refuge water supply deliveries. The 1989 and 1992 Refuge Water Supply Studies define Level 2 refuge water supplies as the average amount of water the refuges received between 1974 and 1983.

Level 4: A term used to refer to refuge water supply deliveries. Level 4 refuge water supplies are defined in the 1989 and 1992 Refuge Water Supply Studies as the amount of water for full development of the refuges based upon management goals developed in the 1980s.

Measure: A type of Program Activity defined by the provisions of CVPIA that includes specific physical or structural actions.

Metric: The defined quantifiable measurement of outputs or outcomes.

Mitigation: One or all of the following: (1) Avoiding an impact by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of an action and its implementation; (3) rectifying an impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating an impact over time by preservation and maintenance operations during the life of an action; and (5) compensating for an impact by replacing or providing substitute resources or environments.

Natural Production: As defined by Section 3403(H) of the CVPIA, “fish produced to adulthood without direct human intervention in the spawning, rearing, or migration processes.”

Outcome: The intended results or consequences to be achieved through implementing measures and programs described in CVPIA.

Output: The specific actions, measures, programs, and services produced by Reclamation and the Service and provided to the public or others. Outputs are the activities of the CVPIA Program to achieve the outcomes defined by the Act or developed by Reclamation and the Service to achieve the environmental restoration purposes.

Performance Goal: Combination of metric, target, and timeframe describing achievement of an outcome.

Performance Measure: The quantifiable indicators or metrics used to gauge actual program performance outcomes and outputs.

Program: The overall effort to implement the provisions of CVPIA.

Program Activity: The individual provisions of CVPIA that are being implemented by “Program Managers” at Reclamation and the Service.

Program Coordinator: Staff members at Reclamation and the Service who are involved daily in the organization of both the CVPIA Program Activity Review and PART processes. These individuals closely coordinate with Program Managers as well as Reclamation and Service management staff, and serve as the primary conduit of information exchange between the Program Managers and the Working Group of the CVPIA Program Activity Review.

Program Manager: The staff at Reclamation and the Service who oversees implementation of the CVPIA Program Activities. Each active Program Activity has a program manager from its respective agency.

Progress Goal: Combination of metric, target, and timeframe describing progress of the outputs to meet the requirements of the CVPIA provisions.

Restoration Fund: The fund established by Section 3407 of the CVPIA to contribute resources for the environmental restoration provisions of the Act. Revenue comes into the fund primarily through assessments on CVP water and power contractors.

Restoration Fund Criteria Status: A status of the progress made toward fulfilling the intention of the Act which, when fully fulfilled, would trigger a reduction in the funding the specific provision.

Restoration Fund Roundtable: A collective of stakeholders representing environmental organizations, Federal and State resource agencies, water and power contractors, and other interested parties who meet as needed to discuss issues, news and activities related to the Central Valley Project Improvement Act (CVPIA) and provide information to Reclamation and the Service.

Status: For programs, a synopsis of the progress made toward fulfilling the performance goals the program has, or currently is, implementing.

Target: The quantifiable or otherwise measurable characteristics that tell how well a program must accomplish a performance measure.

Timeframe: The period of time when Program Activities occur (e.g. annual or long-term) that combine with a performance measure and target, establish a performance goal.

Water Acquisition: The purchase of water from willing sellers.

Acronyms and Abbreviations

ACID: Anderson-Cottonwood Irrigation District
AEAM: Adaptive Environmental Assessment and Management Program
AF: acre-feet
AFRP: Anadromous Fish Restoration Program
AFSP: Anadromous Fish Screen Program
AWP: Annual Work Plan
BA: Biological Assessment
BLM: Bureau of Land Management
BO: Biological Opinion
BOR: Bureau of Reclamation
CAMP: Comprehensive Assessment Monitoring Program
CBDA: California Bay-Delta Authority
CCWD: Contra Costa Water District
CFM: Constant Fractional Marking
COA: Coordinated Operating Agreement
CPAR: CVPIA Program Activity Review
cfs: Cubic feet per second
CVHJV: Central Valley Habitat Joint Venture
CVO: Central Valley Operations
CVP: Central Valley Project
CVPIA: Central Valley Project Improvement Act
DAT: Data Assessment Team
DCC: Delta Cross Channel
DFG: California Department of Fish and Game
DOI: Department of the Interior
DU: Ducks Unlimited
DWR: California Department of Water Resources
EIR: Environmental Impact Report
EIS: Environmental Impact Statement
ERP: Ecosystem Restoration Plan
ESA: Endangered Species Act (Federal)
FCS: Fall-run Chinook smolts
FEIS: Final Environmental Impact Report
FERC: Federal Energy Regulatory Commission
FWUA: Friant Water Users Authority
FY: fiscal year
GCID: Glenn-Colusa Irrigation District
GMP: Gravel management plan
gpm: gallons per minute
GRCD: Grassland Resource Conservation District
GWD: Grassland Water District
HRP: Habitat Restoration Plan

IFIM: Instream Flow Incremental Methodology
IRWMT: Interagency Refuge Water Management Team
LFC: Late fall-run Chinook smolts
MOU: Memorandum of Understanding
NFH: National Fish Hatchery
NGO: Non-government Organization
NOAA Fisheries: National Oceanic Atmosphere Administration
NRCS: Natural Resources Conservation Service
NRDC: Natural Resources Defense Council
NWR: National Wildlife Refuge
OCAP: Operating Criteria and Procedures
OMB: Office of Management and Budget, (Executive Office of the President, Washington, DC)
POD: Pelagic Organism Decline
PSS: Program Summary Sheet
RBDD: Red Bluff Diversion Dam
RECBD: State Reclamation Board
ROD: Record of Decision
SDF Forum: South Delta Fish Facility Forum
SDIP: South Delta Improvement Program
SDP: Station Development Plan
Service: US Fish and Wildlife Service
SJRA: San Joaquin River Agreement
SJRRHRP: San Joaquin River Riparian Habitat Restoration Program
STT: Steelhead smolts
SWP: State Water Project
SWRCB: State Water Resources Control Board
TCD: Temperature Control Device
TFCF: Tracy Fish Collection Facility
TFTF: Tracy Fish Test Facility
TRRP: Trinity River Restoration Plan
TTAT: Tracy Technical Advisory Team
USACE: U.S. Army Corps of Engineers
USEPA: U.S. Environmental Protection Agency
USFS: U.S. Forest Service
USGS: U.S. Geological Survey
VAMP: Vernalis Adaptive Management Plan
WAP: Water Acquisition Program
WAPA: Western Area Power Association
WCS: Winter-run Chinook smolts
WD: Water District
WOMT: Water Operations Management Team
WQCP: Water Quality Control Plan
WUA: Weighted Usable Area

Appendix 2 Agencies and Stakeholder Groups Participating in the Working Group

US Bureau of Reclamation
US Fish and Wildlife Service
Tehama Colusa Canal Authority
San Luis Delta Mendota Water Authority
California Department of Fish & Game
California Department of Water Resources
Central Valley Project Water Assn.
Santa Clara Valley Water District
The Nature Conservancy
The Bay Institute
Pacific Coast Fly Fishers Association
Environmental Defense Fund
Yurok Tribe
Hoopa Valley Tribe
Natural Resources Defense Council
Friends of Trinity River
Grasslands Water District
Sacramento Municipal Utility District
Contra Costa Water District
Trinity County.
Friant Water Authority
Northern California Power Association
Ducks Unlimited

Appendix 3 - Stakeholder Perspectives and Observations Not Included in Text of the Report

This Appendix briefly summarizes issues, concerns, and perspectives of stakeholders, tribal interests, and other agencies during the CPAR process regarding Section 3407 and Restoration Fund payment reduction criteria.

Working Group discussions since early 2006 have identified and clarified a broad array of issues and concerns about planning, implementation, and completion of the CVPIA fish and wildlife restoration provisions. Through these discussions, Reclamation and the Service identified the following major issues related to fish restoration programs, refuge water supply, specific implementation actions, and more general program management issues.

Fish Restoration Programs Section 3406 (b)(1) and (b)(23) – There were divergent views on the interpretation of the CVPIA related to the two primary fish restoration programs, (b)(1) Anadromous Fish Restoration Program and (b)(23) Trinity River Restoration Program. Some participants believe that the CVPIA requires specific actions or a defined level of effort. According to these interests, the actions and efforts required have been completed and these two provisions and the associated program activities are sufficiently accomplished to trigger a reduction in Restoration Fund contributions. Other participants believe that these two provisions establish fish population goals to be achieved and tools available to achieve them. These participants argue that these provisions and program activities would not be sufficiently accomplished to reduce Restoration Fund contributions until the fish population goals are achieved.

Anadromous Fish Restoration Program – Some members of the Working Group argued that the revised target date of 2012 for completion of the AFRP is not achievable, and that a later date should be set. From a biological standpoint, population trends to date indicate that doubling of natural production will not occur by this time, assuming continued current funding levels. However, the agencies believe that 2012 provides a realistic date for a check-in point to determine if further actions continue to be warranted and biologically valuable.

Differing opinions were expressed by Working Group participants regarding the outcomes needed to be achieved for the AFRP to trigger a reduction in Restoration Fund payments. Some participants noted that Congress clearly set specific restoration and protection goals in the Act, particularly the sustainable doubling of the natural populations of Central Valley anadromous fish, and did not delegate discretion to Interior as to the selective use of the resources authorized by Congress to achieve these goals. They further argued that the “reasonable efforts” language of Section 3406 (b)(1) describes full implementation of the tools available in the Act, including the Restoration Fund.

These interests stated that the activities and expenditures authorized by provisions of the Act related to Central Valley fisheries are, by definition, the reasonable efforts Congress intended Interior to use to achieve the doubling goal, and that 3406 (b)(1) only gives Interior discretion as to what mix of specific activities and expenditures in a given year constitutes “reasonable efforts.”

They further stated that the 2002 date in the Act is a target, rather than a completion date for the program. In that view, the AFRP would be sufficiently accomplished to trigger a reduction in the Restoration Fund payments only when the Act’s relevant goals, particularly the doubling goal, are achieved. These interests also stated that the agency approach described above in Chapters 2 and 4, in which accomplishment is based on completing a defined subset of actions to double anadromous fish, is not justified by the language of the Act.

Other participants argued that accomplishment of the AFRP goals could have been achieved if the Secretary had expended reasonable efforts by 2002 to double anadromous fish populations. According to these interests, reasonable efforts would have included: 1) Restoration Fund collections to the maximum extent allowed by the law; 2) exercise of full discretion by the Secretary to implement the Act and the AFRP Plan; and 3) better coordination of the AFRP with the State of California and other partners to make best use of the Restoration Fund.

Other participants argued that Interior had expended reasonable efforts by 2002 to achieve the purposes of the provision; thus, the provision is sufficiently accomplished to trigger a reduction in Restoration Fund payments at this point in time.

Trinity River Restoration Program – Substantial disagreement was voiced within the Working Group regarding the interpretation of the language of Section 3406 (b)(23), Trinity River Restoration Program. Some participants believed that the Act only requires implementation of a flow study, which would be incorporated into Trinity River and CVP operations. These participants argued that the applicable criterion for triggering a reduction in Restoration Fund payments is the completion of this flow study.

Other participants noted that Section 3406 (b)(23) describes specific fish population goals to be achieved. The Trinity River ROD describes the river restoration and flow actions necessary to achieve these population goals. These participants believed that the applicable criterion for triggering a reduction in Restoration Fund payments is achievement of these fish population goals. In that view, the Restoration Fund payments should be reduced only when infrastructure modifications and habitat improvements are completed and resumption of commercial, recreational, and Indian harvests are provided at pre-Trinity River ROD levels.

Water Acquisitions: Instream and Refuge Water Supply (b)(3) and 3406(d) – Significant concerns were voiced by many Working Group participants about the long-term planning to acquire water for instream flow needs and refuge water supply. Some participants proposed that the goal should be to develop a permanent, sustainable water supply to meet the CVPIA requirements. These participants stated that program implementation has focused too heavily on annual water acquisitions that are subject to funding variations, even though the Act requires consideration and development of other, more reliable supply sources.

Specific Provisions – The Working Group has generally agreed on the purposes and scope of most of the provisions of Sections 3406 and 3408 and the provisions Reclamation and the Service identified as complete.

Many Working Group participants expressed concern about the scope and schedule for completing several of the specific implementation actions in Section 3406, including Tracy Pumping Plant, Contra Costa Pumping Plant, and Head of Old River Barrier. Some participants observed that Reclamation and the Service have not in all cases identified specific outcomes or outputs to be achieved. Therefore, the scope of these program activities is or undefined or the provision is described as inactive.

Funding and Decision-making – Most Working Group participants agreed that, while substantial progress and accomplishments have been achieved by the CVPIA Program, several issues are critical to successful and timely implementation of the fish and wildlife restoration provisions. First, adequate funding must be provided from all available sources. Second, timely decisions and approvals on the outcomes, targets, priorities, and actions must be made for each provision and program activity. Third, timely decisions and adequate funding depend on building agreements and acceptance among Interior agencies, the State of California, stakeholders, regulatory agencies, and local partners.

Funding from Other Sources – Several participants stated that past funding from other sources, such as non-reimbursable costs from the Federal budget and contributions from the State of California, has not been at the levels anticipated in the Act. Some of the water and power contractors stated that provisions that have received inadequate funding from other sources should be declared complete.

The tribal participants noted that Reclamation and the Service should clarify the tribal consultation process for this review, the refinement of Trinity River goals and timeframes, and funding sources for the Trinity River ROD.

CVPIA Program Duration – All participants acknowledge and agree that the CVPIA Program, including the Restoration Fund, is a long-term program that will continue for the foreseeable future. The points of discussion among the Working Group focused on the timeline and level of effort for certain program activities and what constitutes “completeness” as used in Section 3407(d)(2).

Value and Scope of the CPAR Process – From the beginning, participants have noted the value of the discussions to clarify issues and understanding. There is strong support for this effort as evidenced by continued participation in frequent, lengthy, and often complex discussions. The vast majority of the participants agreed on the scope of the CPAR process – Sections 3406 and 3408 – and the program activities considered as part of the review. Some participants noted important relationships to other parts of the Act that should be considered in the review, specifically the overall purposes of the Act (Section 3402) and contract renewals (Section 3404).

Reasonable Efforts – As noted above, the Working Group and the agencies have varied views of the definition and application of the “reasonable efforts” language in Section 3406 (b)(1) and other provisions. In general, the Working Group, Reclamation, and the Service agree that considerations of feasibility and reasonableness should be applied in program management. Further discussion is warranted to refine and apply those concepts to the fish and wildlife restoration program and individual program activities.

Need for Program Management Improvements and Performance Reporting – There was broad agreement among Working Group participants on the desire and need for a more structured management approach to the CVPIA Program. Specifically, historical participants in the Restoration Fund Roundtable have advocated for clearer definition of goals, objectives, desired outcomes, and program plans to achieve the goals. Reclamation, the Service and the Working Group believe that the improvements in program management and reporting identified through this process should be expanded and continued. The Working Group proposed that the agencies continue discussions about performance goals, progress reporting, program coordination discussed in this report can be incorporated into annual work plans and program activities.

Summary – In summary, the Working Group participants observed that failure to address each of these issues discussed above has created barriers to implementation and performance for the CVPIA fish and wildlife restoration program. There is broad acknowledgement among participants that funding levels are insufficient to implement all the actions of the CVPIA Program simultaneously and attain the goals. There is also agreement that more clarity about the sources of past and future funding is needed. While there is agreement at this basic level, funding is a volatile topic as participants disagree on the appropriate level and mix of funding sources.

Appendix 4 - Alternative Funding Reduction Criteria Development

This Appendix documents the alternative conceptual approaches developed by the agencies and the Working Group process to implement the funding reduction pursuant to Section 3407(d)(2)(A). Generally the alternatives consider whether a specific provision anticipates an output or an outcome as the Performance Goal, and the Term of the provision, whether annual or time certain, as described in Chapter 2. As noted in the text of the Report, the Agencies have recommended that Concept D be used to determine when Restoration Fund collections could be reduced.

Concept A - output goals must be met for all provisions, regardless of the Term, whether annual, time certain or time certain with annual component.

Concept B - outcome goals must be met for all provisions, regardless of the Term.

Concept C - combination of concepts A and B where output and outcome goals must be met, regardless of Term.

Concept D - goals must be met for time certain and time certain with annual components. Annual provisions are considered but not dispositive in this approach. Type of goal is not a factor.

Concept A

Concept A is formulated to base funding reduction on attainment of output goals. The Secretary of the Interior would approve a funding reduction only if all output goals are achieved, whether annual or time certain.

Concept B

Concept B is formulated to base funding reduction on achievement of outcomes. The Secretary would reduce funding only if all outcomes are achieved, whether annual or time certain.

Concept C

Concept C is formulated on the achievement of all outputs and outcomes described in Chapter 2, in particular the actions of the AFRP. If the Act provides a specific action to be accomplished then the provision is considered an output provision. If the Act lacks specificity as to the actions to be accomplished, but rather provides general guidance as to the purpose of the provision, it is considered an outcome provision. The Term of the provision is not a deciding factor in this concept. The Secretary of the Interior would approve a funding reduction only if all provisions, whether output or outcome, time certain time certain with annual components, or annual, were complete.

Concept D

Concept D is the agency's proposal and recommendation. It would be based on completion of all time certain provisions, with some consideration of the status of the annual provisions.

The Secretary would evaluate the remaining time certain provisions, and time certain provisions with annual components, to determine if the reduction in Restoration Fund collections would be triggered. The basic analysis is whether these provisions are complete and whether sufficient funding is available through the Restoration Fund or other "adequately established" and reliable sources to continue to accomplish the remaining CVPIA provisions.

"Adequately established" is defined as meeting the following parameters: 1) the performance goal has been developed with an appropriate measure and target; 2) there is a plan for the program (written or otherwise); and 3) the Program Manager's position is funded, if appropriate. An additional criterion is whether the provision is being adequately implemented. This could mean that the provision has met its targets for a minimum of three consecutive years. This would demonstrate that a provision has a proven track record of achieving the targets and because program planning and CVPIA budget planning occur on a three-year timeframe.

An additional constraint on this concept might be that the Restoration Fund would not be reduced until the annual programs can be paid for with the reduced Restoration Fund which is \$35 million in 1992 dollars (which is probably the equivalent of \$28 million in 2006 dollars.) For example, if all of the time certain provisions are complete and only annual provisions remain, then a cost for these annual programs would be developed. If the costs of the annual provisions, such as instream and refuge water acquisitions, are less than \$28 million a year, then the fund could be reduced.

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