CENTRAL VALLEY PROJECT CONSERVATION PROGRAM

U.S. Bureau of Reclamation / U.S. Fish and Wildlife Service
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Acknowledgment

This document was prepared by the Central Valley Project Conservation Program Team, Rosalie Faubion, BOR, Kurt Flynn, BOR, Rod Hall, BOR, Michael Hoover, FWS, Larry Host, FWS, Patrick Leonard, FWS, Frank Michny, BOR, Chuck Solomon, BOR, and Marie Sullivan, FWS. It sets the overall goals and objectives of the program and an operational framework. By its nature the Conservation Program is dynamic; consequently, this document is dynamic and will be changed/updated periodically to reflect new information, changing ecological needs of species, and input from agencies and publics.

If you have any questions or comments on this report, please provide them to Chuck Solomon, Conservation Program Manager, MP 152, Bureau of Reclamation, 2800 Cottage Way, Sacramento, California 95825.

TABLE OF CONTENTS

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1.0 INTRODUCTION

This document describes a framework for the Central Valley Project Conservation Program. The primary goal of the Conservation Program, developed and managed by the Bureau of Reclamation (Reclamation) and the Fish and Wildlife Service (Service), is to meet the needs, including habitat needs, of special status-species in the area affected by the Central Valley Project (CVP). The special-status species whose needs will be addressed by the Conservation Program include primarily federally-listed species. In addition, species that are candidates or are proposed species for Federal listing, as well as other species of concern, will benefit from the Program if they have high-priority biological needs. Together with the attached appendix, this document describes the Conservation Program and how it will be implemented.

1.1 Purpose and Need

The overall purpose and need of the Conservation Program is to meet, in concert with other programs, the habitat and related needs, of special-status species as defined above. Implementation of the Conservation Program, by addressing the needs of threatened and endangered species, should reduce existing threats to special-status species whose historic or current range includes areas that have been affected by the CVP and is thus expected to facilitate the forthcoming "comprehensive" section 7 consultation on the operation of the CVP, including implementation of the Central Valley Improvement Act (Figure 1 shows this potential area of effect).

California is well known for its varied habitats; the Central Valley in particular was historically one of the most biologically diverse areas in North America. But many of the biological resources of these areas have been reduced or severely degraded by human activities. Impacts include the inundation of thousands of acres of upland, wetland, and riparian habitats by large reservoirs; degradation of wetland, riparian, and aquatic habitats downstream from reservoirs due to changes in both quantities and timing of river flows; and conversion of upland and wetland habitats for agricultural, municipal, and industrial uses. Although the Central Valley remains biologically diverse, the present-day condition of indigenous fish and wildlife and their habitats can be described only as poor. As much as 80 and even 90 percent of some habitat types, such as wetlands and riparian forests, have been lost, and dozens of species have been listed or proposed for listing as threatened or endangered, or are considered candidates for listing. Other species and habitats demonstrate downward trends that if left unchecked, could lead to similar results.

1.2 Goals and Objectives

The primary goal of the Conservation Program is to implement an aggressive adaptive management program that will protect, restore, and enhance special-status species and their habitats in areas directly or indirectly affected by the CVP, especially in the Central Valley and in other areas where CVP water is delivered.

The objectives of the Conservation Program are to:

- Address the needs of threatened and endangered species in an ecosystem-based manner
- Assist in the conservation of biological diversity
- Improve existing conditions for threatened and endangered species and reduce conflicts with future projects

Meeting these objectives would help ensure that current and future operations of the CVP will not jeopardize the existence of any species.

2.0 BACKGROUND

The concept for a CVP Conservation Program was developed in 1991 during the section 7 consultation between Reclamation and the Service for the renewal of the Friant Division water contracts. As a result of this consultation, Reclamation and the Service developed the San Joaquin Valley Endangered Species Recovery Program to address endangered species issues in the San Joaquin Valley. As part of this consultation and a subsequent consultation on interim renewal contracts, Reclamation agreed to address endangered species issues throughout the area affected by the CVP.

In the summer of 1995, the Assistant Regional Directors of the Service and Reclamation, and their staffs, met with the goal of developing a mutually acceptable approach for addressing endangered species issues in the CVP service areas. The agencies agreed that:

- A CVP Endangered Species Act (ESA) Team consisting of staff from both the Service and Reclamation would develop and implement a CVP Conservation Program
- The Conservation Program would be based on (1) the needs of threatened and endangered species in the area affected by the CVP and (2) the opportunities available to Reclamation and the Service to address these needs (rather than on an accounting of the specific impacts of the CVP)

- The Conservation Program, along with other initiatives, would help ensure that the existing operation of the CVP, implementation of the Central Valley Project Improvement Act (CVPIA), and renewal of CVP water service contracts would not jeopardize listed or proposed species or adversely affect designated or proposed critical habitat

3.0 IMPLEMENTATION

This section briefly describes the implementation process for the Conservation Program, which will be guided by these principles:

- Implementing actions will respond directly to biological needs

- Highest priority needs will generally be addressed first

- Priorities and needs, and thus the implementation plan, will change over time

- The Conservation Program will identify actions for implementation mainly by synthesizing existing information about needs and specific actions rather than by duplicating other efforts and developing information on its own. However, there may be some issues where existing information is not available, and the Conservation Program will develop new information

- Actions will be implemented through other ongoing programs and with partners when possible

3.1 Identification of Threatened and Endangered Species

The Conservation Program will address primarily threatened and endangered species. However, a secondary focus will be other special-status species that are listed as threatened or endangered pursuant to the California Endangered Species Act, and species proposed for listing pursuant to either the federal or state act. In addition, species that are candidates for listing pursuant to the Federal act, species on the Service's list of species of special concern, species listed as rare under California law, species of special concern according to California Department of Fish and Game(CDFG), and other species with compelling biological needs may be appropriate special status species for the Conservation Program.

The Service has developed a list of all special status species in the potential area of concern (Figure 1). The list includes 1320 species of which 275 are federally listed, proposed or candidate species. Species may be added to or removed from this list by the technical team based on new information or as species needs are met by program actions.

Map of California showing potential threatened and endangered species impact area not provided on Web version of this document.

3.2 Identification of High-Priority Species

To narrow the range of actions considered each year to a manageable level, a list of high-priority species will be developed. An initial list (near-term priority) consists of those species identified as having high-priority needs in the consultations for both the interim renewal and Friant Division contracts. As the highest priority needs of these species are met, it may be appropriate to add new species to the list. The list of priorities will be refined through review of information from habitat-based data, recovery plans, listing packages, habitat conservation plans, other consultations, or monitoring programs.

3.3 Identification of Ecological Needs

The ecological needs of the high-priority species will be identified and compiled, largely from existing information developed by the Service, CDFG, other public agencies, and private sources. Factors responsible for the decline of the species will be identified. The ecological needs will be ranked and if possible, the most important limiting factors will be identified for each species or habitat.

This task has been largely completed for the species on the initial near-term priority list; these species' needs were identified during the Friant Division and interim renewal contract consultations. As other species are added to the list of priority species, information about their needs can be developed from listing packages, recovery plans, or other sources.

3.4 Identification of Options to Address these Needs

Options to address the ecological needs, especially critical needs or limiting factors, will be developed. Most options will have been identified in other efforts; however, with the help and input of the general public and stakeholders, the Conservation Program may identify new options.

3.5 Specific Action Proposals

Specific action proposals, developed by the Service, Reclamation, submitted by others, will be used to meet the needs of the species or habitat. Each proposal will include (1) the biological objectives (ideally, quantified) of the action, (2) specific measures to be implemented, (3) a description of the potential for success, (4) a monitoring plan including considerations for quality control, (5) evaluation criteria to determine whether the action is successful, (6) an implementation schedule, and (7) funding requirements. Appendix A is an example of an action proposal.

3.6 Selecting Actions for Implementation

On an annual basis, action proposals not previously selected for implementation will be evaluated on the basis of (1) biological need (for example, actions that address a species' limiting factor will have a higher score than an action that addresses lower priority needs), (2) technical and

economic feasibility, (3) institutional considerations (for example, implementation of a particular action may require the participation of specific partners; lack of participation by needed partners may result in receiving a lower score), and (4) ancillary benefits, which may be other biological benefits (for example, an action that would benefit an entire guild or ecological community would have a higher priority than another action that addressed the same target need but would have no other biological benefits), social, or economic benefits.

3.7 Implementation/Evaluation of Specific Actions

Once funds are available for a specific action, it will be implemented. In general, implementation may be accomplished directly by, or through contract with, the Service or Reclamation or through an outside agency or private contractor. The success of each action, and of the Conservation Program as a whole, will be evaluated each year. Either the action or the Conservation Program may be modified based on the results of this annual evaluation.

3.8 Monitoring

An overall monitoring program will be developed to provide information on the status and success of ongoing action plans. It will assist the technical team in revising priorities for future activities.

3.9 Funding

Funding sources for specific actions will include the regular budgets of the Service and Reclamation and may include the Restoration Fund established by the CVPIA. The Conservation Program will also seek outside sources of funding through other agencies and private foundations where the goals of the Conservation Program converge with the goals of the funding program.

4.0 PARTNERSHIPS AND PUBLIC PARTICIPATION

The Service and Reclamation recognize that development and use of partnerships is a vital component to effective use of funds and staff toward meeting the goal of the Conservation Program. The Conservation Program will make every effort to implement specific programs in partnership with other involved agencies, organizations, and the public to maximize the use of available funds.

These partnerships could take many forms, such as providing information or loans to other Federal, State, or local agencies involved in implementing actions to benefit threatened and endangered species in the project area, or providing seed funds to a local agency or association of governments preparing a habitat conservation plan (HAP). By providing seed money to initiate the implementation of the HAP, the Conservation Program may achieve its goals (and the goals

of the HAP) more quickly, or implement actions that otherwise could not be implemented. Partnerships will be especially important where they can leverage the limited resources of the Conservation Program to address needs that would otherwise be unmet.

In addition to seeking partnerships for implementation of specific actions, the Conservation Program will promote public participation activities that will help shape effective management of the program. The objectives of the public involvement program are to:

- Effectively communicate the goals and objectives of the Conservation Program
- Solicit public input on specific aspects of the Conservation Program, including key decision making steps
- Clearly explain the issues and activities in the Conservation Program
- Provide both general and technical information to interested groups and individuals

The target audiences of the public participation program are diverse and include:

Political/government interests	Environmental interests
Fisheries groups	Wildlife organizations
Agricultural interests	Urban water users
Business/Community interests	Water policy groups
Native Americans	Public interest groups
General public	Media
Recreation interests	Wildlife preserve neighbors

5.0 PROGRAM STRUCTURE

The CVP Conservation Program will be implemented through an organizational structure as shown in Figure 2 and outlined in Appendix B. This structure includes a Program Manager, a Technical Team, and a Steering Committee.

The Program Manager administers the Conservation Program and makes the day-to-day decisions to ensure a smooth-running and cohesive program. In addition, the Program Manager is the focal point for all contact with the public. Finally, the Program Manager serves as the coordinator for the exchange of information among the Technical Team, the Steering Committee, other existing related programs both within and outside the Department, interested parties, the general public, and decision makers. The Program Manager is the only full time person associated with the program.

Central Valley Project Conservation Program organization chart not provided on Web version of this document.

The Technical Team will be made up of representatives of the Service, Reclamation, National Marine Fisheries Service (NMFS), and CDFG. The Technical Team will have the primary responsibility of identifying near-term high-priority species, identifying specific actions to address the needs of these species, evaluating and ranking these actions, and providing technical input throughout the planning process. Additionally, the Technical Team will participate in establishing the program goals and objectives, provide planning and implementation activities for CVPCP actions, and establish a general monitoring protocol to determine program effectiveness. Membership in the Technical Team will be based on expertise in ecology and the special status needs of species and their habitats addressed by the Conservation Program, and expertise in addressing these needs. The Northern California Area Office, South-Central California Area Office, and Southern California Area Office of Reclamation will each provide part time staff on an annual basis, to the Technical Team. The Service will provide two part time staff to serve on the Technical Team.

The Steering Committee will provide, when necessary, policy direction and guidance, and resolve management issues. The Steering Committee may assist with (1) determining the goals and objectives of the long-term program, (2) identifying priorities for the Conservation Program based on policy direction, (3) identifying and resolving policy issues among the participating agencies, and (4) coordinating within their agencies to help streamline the Conservation Program and facilitate its implementation. Members of the Steering Committee should serve as advocates for the Conservation Program within their respective agencies. The Steering Committee will be comprised of management or senior staff from Reclamation, the Service, NMFS, and CDFG.

Appendix A. Central Valley Project Improvement Act, Section 3406[b][1]: Mitigation for Other CVP Impacts - FY 97 Scope of Work #10 - Gabbro Soil Plant Species [June 1996]

1. Project: Acquisition of habitat for endangered and threatened plants. One million dollars in funding to complement other State, Federal and local mitigation funds to purchase priority habitat within the Pine Hill Ecological Reserve in El Dorado County. Funds would be used to protect an extremely rare natural community tracked by the California Natural Diversity Data Base and designated Significant Natural Areas ELD#003, #004, #005 and #007. These areas contain eight (8) rare plant taxa, including five federally listed plants, one of the largest concentrations of rare plants in California. The five federally listed plant species are:

Stebbins' morning-glory	*Calystegia stebbinsii*
Pine Hill ceanothus	*Ceanothus roderickii*
Pine Hill flannelbush	*Fremontodendron californicum* ssp. *decumbens*
El Dorado bedstraw	*Galium californicum* ssp. *sierrae*
Layne's butterweed	*Senecio layneae*

2. Type of Project: Habitat acquisition

3. Description of Activities

Background:

Stebbins' morning glory, Pine Hill ceanothus, Pine Hill flannelbush, El Dorado bedstraw, and Layne's butterweed occur primarily on the Pine Hill gabbro formation, an area of approximately 25,700 acres in Western El Dorado County, California. They primarily grow in "Gabbroic Northern Mixed Chaparral", a community that is restricted to the Rescue stony loam soils of western E1 Dorado County, in the Pine Hill area. The Pine Hill gabbro soil formation also includes eighteen additional plant species restricted to gabbro or serpentine soils. Seven hundred forty (740) distinct plant species have been recorded from the Pine Hill gabbro formation and adjoining serpentine and metamorphic rocks. This means that approximately 10% of the native plant species known from California are represented within this tiny fraction of the State, making it a nationally-significant site of species diversity. At least 80 percent of the occurrences for the five federally listed plant species are on private land.

The primary threat facing these five species and their associated habitat is the ongoing and threatened destruction and modification of habitat by one or more of the following - urbanization and its ensuing habitat fragmentation, road construction and maintenance, off-road vehicle use, grading, and mining. Nearly all the remaining occurrences of the five species are threatened by destruction of habitat through residential or commercial development. The human population of

the four counties just east of the Sacramento metropolitan area (Nevada, Placer, El Dorado, and Amador) increased 375 percent between 1960 and 1992. El Dorado County, which has a projected population growth of 54 percent between 1990 and 2005, is one of the most rapidly growing counties in California.

It is estimated that at least 50 percent of the Pine Hill intrusion is within the El Dorado Irrigation District (EID) service area. The residential and commercial development that has significantly impacted and is currently impacting the habitat of the five federally listed plant species receives water through CVP contracts. Action is needed due to the imminent commercial and residential development threatening these species, especially in the southern portion of the Pine Hill intrusion.

Attempts have been made to establish a preserve system to protect the gabbro plant habitat in E1 Dorado County. An initial report on preserve sites and rare plant strategies, completed in November 1991, identified 12 potential sites. In 1992, El Dorado County held public workshops concerning this report. A rare plant advisory committee, consisting of members from the development community, various agencies (CDFG, BLM, Service), E1 Dorado County Planning Staff, the California Native Plant Society, the American River Conservancy and others was established to identify feasible preserve sites, funding mechanisms, and management strategies for these preserves. The rare plant advisory committee identified five preserve sites: three main preserve site - Salmon Falls, Pine Hill, and Cameron Park/Shingle Springs, and two smaller satellite preserve areas - Martel Creek and BLM. Five preserve sites were identified in order to protect more than one population of each species, to protect against catastrophic loss at any one site, maintain genetic diversity within the rare plant species, and preserve a representation of the geographic range, diversity of plant associations, and other potentially important site-specific conditions associated with the rare plants. The County Board of Supervisors evaluated the preserve sites recommended by the rare plant advisory committee and eliminated the large Cameron Park/Shingle Springs southern preserve site. It approved in principle two other large preserve sites and the two small satellite sites; however, the majority of the Board would not consider any local funding to establish or maintain the preserves.

Project Activities:

The proposed project is the acquisition of habitat for endangered and threatened plants. Project funds, complemented by other Federal, State, and local mitigation funds, would be used to acquire the Cameron Park Unit of the Pine Hill Ecological Reserve. The proposed Pine Hill Ecological Reserve has a total of 3,450 acres. The proposed reserve is divided into five units because the rare plants occur in disjunct, isolated concentrations, with no single unit containing all of the rare plant species.

4. Tasks

A. Assist in the acquisition of the Cameron Park Unit

5. Products - Acquired habitat

6. Funding:

The total estimated cost of completing the 3,450 acre Pine Hill Ecological Reserve system of five (5) units is **$13,220,000**. The $1,000,000 from the CVPIA B-1 other program would go toward the acquisition of the Cameron Park Unit. The following table summarizes the current acquisition status and expected costs for the completion of each of these five (5) units.

Pine Hill Ecological Reserve (3,450 acres)

1.	Salmon Falls Unit (1,765 acres)		
	Existing public lands (BLM & CDFG)	655 acres	
	Lands to be dedicated by development agreement (Kanaka & Sweetwater)	800 acres	
	Value of dedication: 800 acres x $4,000/acre	Value of dedication:	$3,200,000
	Lands to be acquired: 210 acres x $4,000/acre		$840,000
2.	Pine Hill Unit (700 acres)		
	Existing public lands (CDFG)	360 acres	
	Lands to be acquired:	340 acres x $7,000/acre	$2,380,200
3.	Martel Creek Unit (400 acres)		
	Existing public lands (BLM)	200 acres	
	Lands to be acquired:	200 acres x $4,000/acre	$800,000
4.	Cameron Park Unit (400 acres)		
	Lands to be acquired:	400 acres x $23,809/acre	$9,523,000
5.	Penny Land Unit (185 acres)		
	Existing public lands (BLM)		
	Lands to be acquired: None		$0
	Total Project Costs (Pine Hill Ecological Reserve)		$16,743,600

The acquisition of project lands will occur with the proposed funding contributions from the following sources:

1.	Mitigation funding provided by El Dorado Irrigation District through a water meter and water service surcharge.	$5,000,000

2.	800 acres will be dedicated by the Kanaka Valley and Sweetwater projects through development agreement Value of dedication: 800 acres x $4,000/acre		$3,200,000
3.	Building and subdivision impact fees assessed by El Dorado County Planning and Building departments		$1,670,000
4.	Lands to be acquired by the BLM through a lands exchange		$1,000,000
5.	Grants administered by the Wildlife Conservation Board through the "Significant Natural Area Program"		$900,000
6.	Environmental Enhancement and Mitigation Grant (2.6%)		$350,000
7.	Grants administered by the State Legislature under SB900 (Proposition 204) - River Parkway funds		$100,000
	Subtotal - Other Contributions (92.43%)		$12,220,000
8.	Central Valley Project Improvement Act (CVPIA, (b)(1) "other") program. (11%)	FY97	$1,000,000
		FY98	$500,000
	Total Project Costs		$16,743,600

7. Schedule

Project Completion Schedule

As of November 26, 1996 the project completion schedule presented below is the schedule of acquisitions and dedications that we can most reasonably expect to occur at this time.

May, 1997

48 acres acquired in the Salmon Falls Unit with SB-900 funds. Willing seller, contract completed.

July-August, 1997

600 acres (conservation easement) within the Salmon Falls Unit dedicated by Kanaka Valley Associates. Development agreement between E1 Dorado County, Department of Fish and Game and the Developer has been conceptually approved.

November, 1997

30 acres acquired in the Pine Hill Unit with a partial allocation of EEM grant funds. Willing seller, contract completed.

February, 1998

400 acres acquired in the Cameron Park Unit with funding provided by the following sources: remaining balance of EEM grant funds, CVPIA; (b)(1) "other" program, Mitigation Funding provided by the El Dorado Irrigation District and E1 Dorado County. Willing seller, contract not yet completed.

May, 1998

200 acres acquired in the Martell Creek Unit through a Bureau of Land Management Land Exchange. Willing sellers, contract not yet completed.

All other parcels acquired on an ongoing basis through funding provided by El Dorado County mitigation impact fee income and funding from the Wildlife Conservation Boards' Significant Natural Area Program.

8. Contacts:

USFWS: Marie Sullivan or Kirsten Tarp at 916-979-2760 and 916-979-2120, respectively
BR: Chuck Solomon at 916-978-5044

Appendix B. Central Valley Project Construction Program
Program Outline

1. CVPCP Program Manager

CVPCP Technical Team

1.1 Coordinates and participates in Technical Team efforts to clarify the long-term program goals and objectives as they exist within the current draft CVPCP outline document.

1.2 Coordinates and participates in Technical Team processes to evaluate, select, and prioritize annual project proposals.

1.3 Implements appropriate provisions of the annual work plan through the Technical Team.

CVPCP Steering Committee

1.4 Presents Technical Team recommendations for long-term program goals and objectives to the Steering Committee.

1.5 Presents Technical Team recommendations for annual work plans to the Steering Committee.

1.6 Receives guidance and ultimate approval from the Steering Committee which is then provided to the Technical Team.

Public Relations Activities

1.7 Coordinates all public involvement programing associated with the CVPCP including an annual report to the public.

Other Duties

1.8 Writes Cooperative Agreement(s) (i.e., MOU's) to implement the CVPCP.

1.9 Participates in Endangered Species Act section 7 consultation associated with continued operation of the CVP and implementation of the CVPIA.

2. CVPCP Technical Team Responsibilities

General Technical Team

Participants-May change to reflect need for various disciplines

- Fish and Wildlife Service staff with expertise in applicable areas
- Bureau of Reclamation Staff with expertise in applicable areas
- Other Agency Staff (CDFG, NMFS, BLM, etc.) with experience in applicable areas

Duties

2.1 The Technical Team, including the Program Manager, will add specificity to the goals and objectives found in the draft CVPCP outline document.

2.2 Receive, appraise, and prioritize project proposal from outside the Technical Team.

2.3 Develop proposals from within the Technical Team

2.4 Provide information for both long- and short-term projects to the CVPCP Steering Committee through the Program Manager.

2.5 Subsequent to Steering Committee approval and Program Manager guidance, the Technical Team provides planning, including NEPA and CEQA, and appropriate implementation activities for CVPCP actions. Implementation could include hands on efforts, or the coordination of other agency, consultant, or public individuals and organizations.

2.6 The Technical Team will set up appropriate monitoring efforts to determine program effectiveness.

3. CVPCP Steering Committee Responsibilities

Participants

- Representation from Bureau of Reclamation Regional Office
- Representation from Fish and Wildlife Service Sacramento Field Office, Division-level

- Representation from National Marine Fisheries Service

- Representation from California Department of Fish & Game

3.1 Long-term planning meetings

a. The Steering Committee will participate in meetings to concur/determine the best goals and objectives for the long-term CVP Conservation Program as would be proposed in section 2.

b. This long-term period will be for 5 years at the end of which, through reevaluation and adaptive management, a new long-term program will be determined.

3.2 Annual meeting prior to budget submissions

a. Review project proposals created within the Technical Team and presented by the Program Manager.

b. Selects and/or concurs with selected proposals and prioritizations determined by the Technical Team and presented by the Program Manager.