APPENDIX D

1) U.S. Fish and Wildlife Service Biological Opinion on the 2006 Renewal of Interim Water Service Contracts

2) National Marine Fisheries Service (NOAA Fisheries) Concurrence Letter on the 2006 Renewal of Interim Water Service Contracts.

3) Letter from the State Clearinghouse and Planning Unit, Governor's Office of Planning and Research, State of California.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

IN REPLY REFER TO:
1-1-06-F-0070

FEB 2 8 2006

Memorandum

To: Chief, Resource Management Division, South Central Area Office, U.S. Bureau of Reclamation

From: Acting Field Supervisor, Sacramento Fish and Wildlife Office, Sacramento, California

Subject: Interim Water Contract Renewal for the Period March 1, 2006 through February 29, 2008

This document transmits the Fish and Wildlife Service's (Service) biological opinion based on our review of the proposal to issue 18 Interim Renewal Contracts for up to two consecutive one year periods, commencing March 1, 2006, through February 29, 2008, in accordance with section 7 of the Endangered Species Act (ESA) (16 U.S.C. 1531 *et seq.*). We received your January 13, 2006 request for formal consultation on January 17, 2006.

Since we received your request for consultation, we issued a no jeopardy biological opinion on long term renewal of the CVP water service contracts for El Dorado Irrigation District (January 12, 2006; Service File No. 1-1-04 F-0489). We also issued a concurrence with Reclamation's determination that long term renewal of the CVP water service contract for San Juan Water District was not likely to adversely affect listed species January 19, 2006; Service File No. 1-1-04-I-1821). No further review under section 7 of the ESA is necessary to execute either interim contracts or long term contracts for these contractors for the 2006 water year. As a result, these contracts will not be further addressed in this biological opinion.

Based on Reclamation's project description and our evaluation of the status of the species, the environmental baseline, together with effects of the action and cumulative effects, I have concluded that Reclamation's request to renew the interim water contracts is a non-jeopardy Federal action within the meaning of the Endangered Species Act of 1973.

Introduction

This biological opinion is a reinitiation and amendment of the U.S. Fish and Wildlife Service's (Service) February 29, 2000 biological opinion on Interim Water Contract Renewals (Service File # 1-1-00-F-0056, as amended by our biological opinions of February 27, 2002, Service File # 1-1-02-F-0070) and February 27, 2004 (Service File # 1-1-04-F-0360) in accordance with section 7 of the Endangered Species Act of 1973, as amended (ESA). This third amendment to the February 29, 2000 biological opinion addresses the effects of the proposed renewal of 18 of

the February 29, 2000 biological opinion addresses the effects of the proposed renewal of 18 of the contracts addressed in the 2004 opinion (Table 2) in accordance with Section 3404(c) of the Central Valley Project Improvement Act (CVPIA), for a maximum period of 2 years. The water will be used within the interim contract service areas for agricultural, municipal, and industrial purposes, and will not exceed water allocations determined by existing CVP operations criteria. Interim CVP water contract renewals are consistent with the tiered implementation of the CVPIA, as described in the biological opinion on Implementation of the CVPIA (CVPIA opinion, Service File No., 1-1-98-F-0124).

For the purposes of this consultation, all conservation measures and non-discretionary terms and conditions described in the biological opinion on long-term contract renewal of the Friant and Cross Valley Unit Contracts (Friant-Cross Valley Opinion, Service File No. 1-1-01-F-0027) apply to the interim renewal of the Cross Valley Unit contracts for the period of March 1, 2006 through February 29, 2008, or until long-term contracts for the Cross Valley Unit are executed, whichever comes first. Therefore, all conservation measures and non-discretionary terms and conditions of the Friant-Cross Valley Opinion of 2000 relevant to Cross Valley contracts are incorporated by reference into this consultation.

Relationship of the Proposed Action to Other Reclamation Actions

The Service has been informed that the 2006 contract renewals will use the same "interim form of contract" used in the existing interim contracts. The interim form of contract includes a mixed agricultural/irrigation (Ag) use or municipal/industrial (M&I) purpose of use for 17 of the 2006 interim renewal contracts (N. Bicknese, USBR, pers. comm., February 27, 2006); contract # 14-06-200-1357A-IR1 for El Dorado Irrigation District is M&I only purpose of use. Use of contract water under the proposed interim contracts will not change from the purpose of use specified in the existing contracts.

The 2006 interim renewal contracts will apply the same interim shortage provisions that are currently applied to the existing interim contract, in accordance with the June 9, 1997 CVPIA Administrative Proposal on Urban Water Supply Reliability (p. 2-29, CVPIA Programmatic biological opinion, Service file no. 1-1-98-F-0124). These interim renewals will not change contract terms or conditions governing the allocation of project water during a drought emergency, so would not provide additional water reliability. As a result, we do not anticipate the 2006 interim renewal contracts to affect water allocations identified by existing CVP operations criteria. We expect Reclamation to analyze the effects of permanently converting CVP contracts to a mixed Ag/M&I purpose of use within the long-term contract renewal consultations, and to also analyze possible service-area effects of Reclamation's M&I Shortage Policy under the long-term contract renewal consultations (see **Environmental Baseline**).

Biological Opinion

This biological opinion is based on information provided in your January 13, 2006 request for consultation, supplemental information provided by the South Central California Area Office, the 2000, 2002, and 2004 biological opinions on interim contract renewals, and other information in our files. A complete administrative record of this consultation is on file in the Service's Sacramento Fish and Wildlife Office.

Concurrence with Determinations of "Not Likely to Adversely Affect"

Because of the wide geographic variation in service areas for interim contractors and overlap of species among different contractors, we will address these determinations by contractor rather than by species.

Pajaro Valley Water Management Area (PVWMA)

We concur that interim renewal of the CVP water service contract for PVWMA (partial assignment from Mercy Springs Water District) is not likely to adversely affect federally listed species. The PVWMA currently has no infrastructure to divert and convey CVP water to its water service area, and will not have that capability at any time during the 2 year interim period. PVWMA will not be further addressed in this consultation.

City of Tracy

The renewal of the City of Tracy's interim contracts # 14-06-200-4305A-IR9-B and 7-07-20-W0045-IR9-B will be used to support additional urban growth in the City of Tracy. These contracts were assigned from Banta Carbona Irrigation District and West Side Irrigation District to the City of Tracy. The effects of this water delivered to the City of Tracy, together with the effects of interdependent actions, have been addressed through the section 10(a)(1)(B) permit issued to the City of Tracy for implementation of the San Joaquin Multi-Species Conservation Plan for a period of fifty years. The permit expires in the year 2051. Reclamation has completed Endangered Species Act compliance through our April 15, 2003, biological opinion on these assignments (Service file # 1-1-03-F-0128). Approval of these assignments by Reclamation will not result in effects to listed species not anticipated and covered by the section 10(a)(1)(B) permit issued to the City of Tracy, and the biological opinion for the contract assignments.

Conclusion

Therefore, for all species and critical habitat within the service areas of the PVWMA and City of Tracy, unless new information indicates that the action will affect them in a way not considered, no further consultation under the ESA is necessary. If new information comes to light that indicates the action may affect them, please contact us immediately.

Species that May be Adversely Affected by the Proposed Federal Action

Table 1 shows species within the action area of the proposed federal action for the r contracts for which we have determined that renewal may adversely affect federally listed species [18 contracts less El Dorado Irrigation District (2 contracts); San Juan Water District (1 contract); Pajaro Valley Water Management Agency (1 partial assignment still going to SCVWD and Westlands); City of Tracy (2 assignments].

Contra Costa goldfields, robust spineflower, and showy Indian clover have been extirpated from Santa Clara County (California Native Plant Society 2006). We have determined that the proposed federal action is not likely to adversely affect the western snowy plover, as it nests and forages on dikes and salt ponds adjacent to San Francisco Bay which are not likely to be affected by interrelated or interdependent actions of CVP M&I water deliveries (primarily urban and industrial development) during the interim contract period

Table 1. Species and critical habitat within the action area considered in this biological opinion (13 of 18 contracts; see explanation above). Note: Entries in bold indicate changes not considered in the 2004 interim contract renewal consultation

Common Name	Scientific Name	Federal Status	Critical Habitat
CROSS VALLEY UNIT			
Blunt-nosed leopard lizard	*Gambelia silus*	Endangered	
California jewelflower	*Caulanthus californicus*	Endangered	
California tiger salamander Central population	*Ambystoma californiense*	Threatened	Units 2,3
San Joaquin adobe sanhurst	*Pseudobahia peiryonii*	Endangered	
Vernal pool fairy shrimp	*Branchinecta lynchi*	Threatened	**Units 24B, 27B**
SANTA CLARA VALLEY WD			
Bay checkerspot butterfly	*Euphydryas editha bayensis*	Threatened	Units 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
California clapper rail	*Rallus longirostris obsoletus*	Endangered	
California least tern			
California red-legged frog	*Rana aurora draytonii*	Threatened	**Proposed Units STC-1A and 1B.**

Common Name	Scientific Name	Federal Status	Critical Habitat
California tiger salamander Central population	*Ambystoma californiense*	Threatened	Units 3,5,6,7,8,9, 10a and 10 b, 11,12
Coyote ceanothus	*Ceanothus ferrisae*	Endangered	
Least Bell's vireo	*Vireo bellii pusillus*	Endangered	
Metcalf Canyon jewelflower	*Streptanthus albidus ssp. Albidus*	Endangered	
Salt marsh harvest mouse	*Reithrodontomys raviventris*	Endangered	
Santa Clara Valley dudleya	*Dudleya setchellii*	Endangered	
Pacific Coast population, Western snowy plover	*Charadrius alexandrinus nivosus*	Threatened	
WESTLANDS WD #1			
Blunt-nosed leopard lizard	*Gambelia silus*	Endangered	
California jewelflower	*Caulanthus californicus*	Endangered	
Giant kangaroo rat	*Dipodomys ingens*	Endangered	
San Joaquin kit fox	*Vulpes macrotis mutica*	Endangered	
San Joaquin wooly-threads	*Monolopia congdonii*	Endangered	
WESTLANDS WD #2			
San Joaquin kit fox	*Vulpes macrotis mutica*	Endangered	

Federally listed salmonids and their critical habitat occur within or downstream of Interim contract service areas. These species are under the jurisdiction of the NOAA Fisheries

Changes Since 2004

Changes in this list of species since 2004 include the final listing of the California tiger salamander Distinct Population Segment as a threatened species; final designation of critical habitat for the Central Distinct Population Segment of the California tiger salamander; final designation of critical habitat 15 vernal pool species; and proposal of critical habitat for the California red-legged frog. Additional information on these actions can be found in the section **Environmental Baseline** and **Status of Species in the Action Area**.

Consultation History

April 5 2000: Reclamation provides a memo to the Service regarding the status of Coordination with California Department of Pesticide Regulation (CDPR) in a joint effort to provide endangered species information to pesticide users consistent with conservation measure 2a. of the 2000 Interim Contract Renewal biological opinion.

December 12, 2000: The Service submits an insufficiency memo to Reclamation regarding initiation of formal consultation for the long term contract renewal of contracts in the Delta Mendota Canal Unit of the CVP. The memo includes a review of status and compliance with the Interim Contract Renewal Biological Opinion of 2000.

January 30, 2001 Request from Reclamation to the Service initiating formal consultation for interim CVP water service contracts for the period of February 2001 to February 2002.

February 5, 2001: Reclamation provides to the Service a copy of the Draft Supplemental Environmental Assessment for the Renewal of Interim Water Service Contracts through February 28, 2002, Central Valley Project, California, and the draft Finding of No Significant Impact dated February 7, 2001.

February 28, 2001: Reclamation seeks concurrence (via memo) of the Service that the partial assignment of the Mercy Springs CVP contract will not adversely affect any listed species under the jurisdiction of the Service.

February 28, 2001: The Service extends for 1-year until February 28, 2002, the 2000 Interim Renewal Contract biological opinion and concurs with Reclamation's conclusion that the delivery of the partial assignment of CVP contract water from Mercy Springs Water District to the Santa Clara Valley Water District and Westlands Water District (Mercy Springs partial assignment) for use of up to 6,260 acre-feet of CVP water for 1 year from March 1, 2001 to February 28, 2002, is not likely to adversely affect federally listed species.

June 19, 2001: The Service submits a memo to Reclamation regarding concerns over exceedences of selenium levels in wetland water supply channels in the Grasslands Area, and how actions that Reclamation undertakes may influence these exceedences. The memo asked Reclamation to determine if reinitiation of the interim contract biological opinion was warranted, and further asked Reclamation take steps to correct these selenium issues before initiating consultation with the Service on long-term contract renewal for the Delta Mendota Canal Unit, or an additional interim renewal of the contract.

June 27, 2001: Letters to the Service from the Board of Supervisors, County of Santa Clara and from Board of Directors, Santa Clara Valley Water District which includes commitments on the part of Santa Clara County to participate in the 1) preparation of a multi-species HCP/NCCP with the goal of completing a final HCP/NCCP and submitting an application for incidental take permits within 5 years; and, 2) establish an interim process that will keep conservation and recovery options open for affected species, and to ensure

County compliance with ESA and the California ESA with regard to the issuance of discretionary permits, excluding agricultural activities, where federal jurisdiction applies, during the period prior to approval of the HCP.

October 19, 2001. Memo from Reclamation advising the Service that Reclamation is developing a proposed action of executing Interim Renewal Contracts for a period of 2 years, from 2002 to 2004.

November 19, 2001: Reclamation submits a memo to the Service requesting initiation of informal consultation with the Service on Interim CVP Water Contract Renewals for the period from March 1, 2002 through February 29, 2004.

December 18, 2001: The Service receives a memo from Reclamation dated December 14, 2001 providing supplemental information for the Interim Renewal Contract consultation.

December 19, 2001. The Service submits a memo to Reclamation requesting additional information and requesting that Reclamation initiate formal consultation on Interim Contract Renewals.

January 17, 2002: The Service submits a memo responding to Reclamation's request to initiate formal consultation, and requesting additional information status of implementation of conservation measures/terms and conditions of the Interim biological opinion of 2000.

January 31, 2002: Reclamation submits a memo to the Service responding to the Service's January 17, 2002 for additional information on Interim CVP Contract Renewals.

February 7, 2002: Reclamation and the Service meet to discuss conservation measures proposed by the Service to be added to the project description of the Interim biological opinion.

February 20, 2002: Reclamation provides a written response to the Service regarding the Service's proposed conservation measures to be added to the project description of the biological opinion of Interim Renewal Contracts.

November 6, 2003. Reclamation requests initiation on 59 interim renewal contracts for the period March 1, 2004 through February 28, 2006.

January 8, 2004. Service receives amended information for interim contractor City of Shasta Lake dated December 23, 2003.

February 19, 2004. Service receives supplemental information regarding presence of critical habitat, Natural Diversity Database records, and other baseline information for interim contractors.

January 12, 2006: Service issues a no jeopardy biological opinion to Reclamation for long term renewal of CVP water service contracts for El Dorado Irrigation District (Service File No. 1-1-04-F-0489).

January 13, 2006: Reclamation initiates consultation on interim renewal of 18 CVP water service contracts for the period of March 1, 2006 through February 29, 2008.

January 19, 2006: Service concurs that long term renewal of the CVP water service contract for San Juan Water District is not likely to adversely affect listed species (Service File Number 1-1-04-I-1821).

February 28, 2006: Service receives supplemental information on each 2006 interim renewal contract indicating the contract's "purpose of use", the interim contract's existing "water shortage reliability", and states the year each 2006 interim contract's "purpose of use" became mixed Ag and M&I.

Project Description

The proposed action is to execute up to 18 CVP water service contracts for two consecutive one-year periods from March 1, 2006 through February 29, 2008. As stated in the introduction, effects to listed species for American River Division contractors (n=3 contracts) San Juan Water District and El Dorado Irrigation District have been analyzed in recently issued consultations on long term renewal of these same contracts. As a result, no further action under section 7 of the ESA is necessary for Reclamation to execute those contracts as either interims or as long term contracts for water year 2006.

In addition, we have determined that interim renewal of the contract assignments to the City of Tracy have been addressed by issuance to the City of an incidental take permit in accordance with ESA section 10(a)(1)(B) for implementation of the San Joaquin County Multi-Species Conservation Plan, and that the two proposed water assignments will not result in effects not anticipated or covered by that permit. PVWMA has no infrastructure to divert or deliver CVP water at this time, and will not have that capacity during the interim renewal period. As a result, the effect of interim renewal of the partial assignment to PVWMA will not be further addressed in this opinion; however, the effects of interim renewal of the partial assignment to SCVWD and Westlands WD will be addressed herein.

The remaining interim contracts fall within the following divisions or units of the CVP: Cross Valley Unit (n= 8 contracts), and Delta Division (n = 7 contracts), which includes 3 partial contract assignments. All contracts proposed for interim renewal were analyzed in our 2004 biological opinion.

Table 2. Interim renewal contractors for period of March 1, 2006 through February 29, 2008

	CVP Contractor name	Contract amount (af/year)
	DELTA DIVISION	
	Delta-Mendota Canal Unit:	
1.	Broadview Water District	27,000
2.	Tracy, City Of (partial assignment from Banta Carbona ID - is final)	5,000
3.	Tracy, City Of (partial assignment from the West Side ID - is final)	5,000
4.	Pajaro Valley Water Management Area, Santa Clara Valley Water District, Westlands Water District #1 (*3 way partial assignment from Mercy Springs WD*)[1]	6,260
5.	Westlands Water District #1 (*assignment from Centinella ID*)	2,500
6.	Westlands Water District #1 (*assignment from Widren ID*)	2,990
7.	Westlands Water District #2 (*3-way partial assignment from Mercy Springs WD*)	4,198
	CROSS VALLEY UNIT	
8.	Fresno, County of	3,000
9.	Hills Valley Irrigation District – Amendatory	3,346
10.	Kern-Tulare Water District	40,000
11.	Lower Tule River Irrigation District	31,102
12.	Pixley Irrigation District	31,102
13.	Rag Gulch Water District	13,300
14.	Tri-Valley Water District	1,142
15.	Tulare, County of	5,308
	AMERICAN RIVER DIVISION	
16.	El Dorado Irrigation District	7,500
17.	El Dorado Irrigation District	50
18.	San Juan Water District	11,200

[1] Partial assignment of Mercy Springs contract 14-06-200-3365A-IR9-B

To facilitate analysis, we have grouped the interim contracts by geographic region.

Westlands Water District #1 and #2

Westlands Water District #1 and #2 are in the San Luis Unit on the west side of the San Joaquin Valley. The Broadview Water District (in the Delta Mendota Canal Unit) is proposing to assign their entire contract to Westlands Water District #1 (Westlands). As a result, water associated with the Broadview contract will actually be applied within Westlands Water District #1. An Environmental Assessment is currently out for public review through March 14, 2006. However, because this water could potentially be delivered to Westlands, which is in the San Luis Unit, the assignment and use of this contract water in Westlands will be reviewed in the biological opinion on renewal of long term contracts for the San Luis Unit (see **Contemporaneous Consultations**). The contract and the deliveries to Broadview are being covered in the interims until the assignment to Westlands is complete with the long term contract renewals for San Luis Unit.

Table 3. Interim contracts assigned to Westlands Water District #1 and #2

	Contract Number	Quantity (acre-feet)
Westlands WD #1		
Broadview WD	14-06-200-8092-IR8	27,000
Partial Assignment from Mercy Springs WD, 1999	14-06-200-3365A-IR8-B	6,266
Assigned from Centinella	7-07-20-W0055-IR8-B	2,500
Assigned from Widren	14-06-200-8018-IR8	2,990
Total		**38,750**
Westlands WD #2		
Partial assignment from Mercy Springs WD, 2003	14-06-200-3365A-IR8-C	1,198

Effects of contract water deliveries under the subject contracts within the Westlands Water District have been addressed in our 2000, 2002, and 2004 biological opinions on interim renewal of CVP contracts. We hereby incorporate by reference those opinions, and provide the supplemental analysis below. No new species have been listed, or critical habitat designated, within this water district since the 2004 biological opinion.

Santa Clara Valley Water District

Santa Clara Valley Water District includes all of Santa Clara County. The CVP place of use, however, does not include the entire county. Although water is commingled, CVP water can only be applied in the CVP place of use and the SCVWD must show they have needs for the water within the CVP place of use (N. Greenhagen, Reclamation, pers. comm., 2006). As a result, this analysis is based on use of water within the CVP place of use within SCVWD.

Included in the 2002, 2004 interim renewal and this 2006 interim renewal is the delivery of water from the partial assignment of Mercy Springs Water District in the Delta Mendota Canal Division to Westlands Water District Distribution District #1, and Santa Clara Valley WD. Mercy Springs Water District assigned 6,260 acre-feet of its CVP Contract to the Pajaro Valley Water Management Agency (PVWMA), Westlands Water District Distribution District #1, and the Santa Clara Valley WD in 1999. [In conjunction with this Partial Assignment, PVWMA, Santa Clara Valley WD and Westlands WD Distribution District #1 executed the "Agreement Relating to Partial Assignment of Water Service Contract" (Related Agreement).

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- Generally, the Related Agreement allows Santa Clara Valley WD and Westlands WD Distribution District #1 to take delivery of the water on an interim basis unless and until the PVWMA is eventually ready to take delivery of the CVP water for beneficial use in its service area.] PVWMA could begin to take delivery in year 10 of the contract (2009), but for purposes of this project description, PVWMA is assumed to take water after year 20 of the assignment. According to the contract, …"during the first Ten (10) years following the effective date of this Agreement, the total quantity of the water delivered to Santa Clara shall not exceed Twenty-five (25) percent of the total Subject Water Supply provided by the United States during said Ten (10) year period…,". No water was delivered to SCVWD under this contract in water year 2004 or 2005 to date (USBR in litt., 2006).

The proposed action does not include an analysis of the construction of a conveyance structure or effects of the delivery of CVP water to PVWMA's service area.

Effects of contract water deliveries under the subject contract within the Santa Clara Valley Water District (SCVWD) have been addressed in our 2000, 2002, and 2004 biological opinions on interim renewal of CVP contracts. We hereby incorporate by reference those opinions, and find that effects to the listed species addressed in the 2001, 2002, and 2004 biological opinion within the SCVWD need not be further addressed.

Since we issued the 2004 biological opinion on interim contract renewals, the following species have been listed, and critical habitat designated, within the CVP place of use within the SCVWD:

- California tiger salamander, central population

- Critical habitat, central population of the California tiger salamander
- Proposed critical habitat, California red-legged frog

Supplemental analysis is herein provided for these species and critical habitat for interim renewal of the SCVWD contracts

Cross Valley Unit

The Cross Valley Unit consists of the contractors shown above in Table 2. Under their interim contracts, they will be enabled to receive up to 128,300 acre-feet of CVP water. The Cross Valley Unit contractor service areas are located along the eastern edge of the San Joaquin Valley. The Sacramento Fish and Wildlife Office issued a no jeopardy biological opinion on long term renewal of the Cross Valley Unit CVP water service contracts on January 19, 2001 (Service File No. 1-1-01-F-0825). Reclamation, however, has not yet executed the long term contracts. Reclamation and the Cross Valley contractors have committed to comply with the requirements in the biological opinion addressing the long term contracts. Effects of contract water deliveries within the Cross Valley Unit have been addressed in subsequent biological opinions on interim renewal of these contracts in 2002 and 2004. We hereby incorporate by reference those opinions, and find that effects to the listed species addressed in the 2001, 2002, and 2004 biological opinion within the Cross Valley Unit need not be further addressed except as updated herein.

Since we issued the 2004 biological opinion on interim contract renewals, the following species have been listed, and critical habitat designated, within the service areas of Cross Valley contractors:

- California tiger salamander, central population
- Critical habitat, vernal pool fairy shrimp unit 24B and 27B
- Critical habitat, central population of the California tiger salamander, units 2 and 3

Supplemental analysis is herein provided for these species and critical habitat for interim renewal of the Cross Valley CVP contracts.

Interim Contracts

Execution of interim contracts is needed to continue delivery of CVP water to interim contractors until the long-term contracts can be executed. The period of renewal for each interim contract would be for up to two years, as permitted under subsection 3404(c)(1) of the CVPIA. The current contract provisions are those that are included in the existing water service contracts, with only minor, administrative changes to the contract provisions. Existing contract provisions such as payment, water quality, water measurement, water conservation, water shortage, discretionary provisions of the Reclamation Reform Act, Endangered Species Act compliance, and standard articles have not changed. Interim CVP water contract renewals are consistent with

the tiered implementation of the CVPIA, as described in the biological opinion on Implementation of the CVPIA (CVPIA opinion, Service File No., 1-1-98-F-0124).

In addition, Article 3(b) of the existing Interim renewal contracts includes mutual and dependent covenants mutually agreed upon by the parties, related to Water to be Made Available and Delivered to the Contractor as follows, "The Contractor shall utilize the Project Water made available to it pursuant to this interim renewal contract in accordance with all applicable requirements of any Biological Opinion addressing the execution of this interim renewal contract developed pursuant to section 7 of the ESA of 1973 as amended, and in accordance with environmental documentation as may be required for specific activities, including conversion of Irrigation Water to M&I Water." Part of the Service and Reclamation strategy to ensure compliance with the ESA includes a commitment for Reclamation to "provide necessary information to the Service's SFWO Endangered Species Division in situations where a determination of *no affect* [*sic*] has been made, sufficiently in advance, to enable the Service's review. Reclamation actions subject to this requirement include conversion of Irrigation Water to M&I water (CVPIA programmatic biological opinion, p. 2-70, Service File no. 1-1-98-F-0124).

Water will be delivered to the interim water service contractors and Cross Valley Unit contractors in quantities up to the contract totals. These 2006 interim renewal contract quantities remain the same as in the existing water service contracts.

No changes to district boundaries are part of the proposed action. Reclamation will consult with or notify the Service (as appropriate) on future inclusions and exclusions to any interim renewal contract service-area boundaries to determine if any inclusions or annexations affect listed species.

No water transfers are part of the proposed action. Appropriate environmental compliance and section 7 consultations will be completed for any other requests from interim contractors for Reclamation approval of CVP water transfers.

Warren Act contracts for conveyance of non-federal water using federal facilities are not part of the proposed action. The Mendota Pool Pumpers Exchange Agreement and other non-Central Valley Project Waters that are pumped into the Mendota Pool are also not part of the proposed action.

Potential impacts arising from future assignments of water are also not included in the proposed action. They are separate independent actions and require their own NEPA and ESA compliance.

Changes to the existing Operations and Criteria and Plan (OCAP) were addressed in our February 15, 2005 biological opinion (Service File No. 1-1-05-F-0055) and are discussed below in the **Environmental Baseline**.

Action Area

The action area for this consultation comprises the aggregate service areas of the 13 contracts for which we determined that interim renewal may adversely affect listed species (see **Description of the Proposed Action**) organized roughly as follows: Western San Joaquin Valley (Westlands Water District #1 and #2); Eastern San Joaquin Valley (Cross Valley Contractors); and the CVP place of use within the Santa Clara County (SCVWD). In addition, the diversions and contractual entitlements addressed in this consultation have interrelated effects throughout the rivers, storage facilities, and Sacramento/San Joaquin River Delta that constitute the CVP water supply because Reclamation operates the CVP as an integrated system with the State Water Project in accordance with the Operating Criteria and Plan (OCAP) and the Coordinated Operations Agreement. We therefore incorporate by reference the action area addressed in our February 15, 2005, OCAP biological opinion (File No. 1-1-05-F-55), and refer the reader to that document for a review of all effects on the greater aquatic system.

Related Consultations

We are currently engaged in formal or informal consultation with Reclamation on the following related actions in the action area:

- San Luis Drainage Features Re-Evaluation
- Long term contract renewals for the San Luis and San Felipe Units
- Long term contract renewal for the City of Tracy

Environmental Baseline and Status of the Species in the Action Area

Please refer to the 2000 Interim biological opinion for a discussion of baseline conditions for most species. This section provides important updates as well as baseline information for species added in the current consultation. More detailed information regarding species distribution, biology and conservation needs can be found in the Recovery Plan for Upland Species of the San Joaquin Valley, California (USFWS 1998a); Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area (USFWS 1998); Final Recovery Plan for the California Red-legged Frog (USFWS 2002a) , and the Draft Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (USFWS 2004).

Completed Consultations on CVP Actions

Central Valley Project Improvement Act Programmatic Biological Opinion

This long-term water service contract renewal consultation tiers from the November 2000 Programmatic *Biological Opinion on Implementation of the CVPIA and Continued Operation*

and Maintenance of the CVP (CVPIA PBO) (U.S. Fish ands Wildlife Service 2000a) to address incremental and cumulative effects of the proposed renewal action. This tiering automatically carries forward all conservation measures and other components of the Project Description of the CVPIA PBO into the environmental baseline for this consultation on the long term renewal of the Roseville Contract. Reclamation's program to implement the CVPIA included the renewal of all existing CVP contracts as a core program (CVPIA PBO page 2-29 to 2-36).

The CVPIA Project Description listed eight significant areas of commitment that provided the basis of the PBO no jeopardy finding (Page 2-50 to 2-71). These eight areas of commitment are listed below:

- Commitments Associated with Implementation of the CVPIA.
    - Anadromous Fisheries Restoration Activities (§3406(b)(1)).
    - Habitat Restoration Program (§3406(b)(1) other).
- Commitments Associated with Long term Renewal of CVP Water Contracts.
- Commitments for Activities Associated with CVP Water and/or Facilities.
- Commitments Associated with CVP Conveyance and Storage.
- Commitments Associated with Operations and Management Planning.
- Commitments Associated with Conservation Programs.
    - Wildlife Habitat Augmentation Program (Wetland Development Program).
    - CVP Conservation Program.
    - Comprehensive Mapping Program
- Commitments Associated with Drainage.
- Commitments Associated General Consultation Process.
- Commitments and Strategy to Ensure Compliance with the Endangered Species Act.

Commitment 8 on Page 2-70 of the CVPIA PBO requires Reclamation to "provide necessary information to the Service's SFWO Endangered Species Division" on CVP actions "where a determination of *no effect* has been made, sufficiently in advance, to enable the Service's review". This commitment applies to all future Central California Area Office's CVP or CVPIA actions, including those specifically listed above under "Related Actions Not Part of the Proposed Action Project Description".

Under "Commitments Associated with Long-term Contract Renewal of CVP Contracts (page 2-54 to 2-56), the CVPIA PBO lists these fourteen contract-renewal commitments which may appropriately be considered part of the action of these contract renewals.

> 1. Long-term contracts will be renewed, and Reclamation will complete tiered site specific consultations with the Service. No CVP water will be delivered or applied outside current contract service areas until either formal or informal consultation, as appropriate, is complete. Once formal site specific consultation has occurred that is in

compliance with this opinion, it is assumed that changes in land-use practices and impacts to listed and proposed specie. in the districts have been addressed.

2. During the contract renewal process, a needs-analysis to determine beneficial use of CVP water will be completed, and all contract renewals will be subject to Section 7 consultation procedures and the NEPA process. A site specific biological assessment, to determine potential impacts of using CVP water on Federal and State listed and proposed species, will be completed for individual water districts or for groups of districts in close proximity to one another. The Service's SFWO Endangered Species Division will provide recommendations to Reclamation on the appropriate level of ESA consultation and *conservation measures* needed.

3. Reclamation also will continue to consult with the Service on a drainage-basin basis or ecosystem-level strategy for addressing new and amended water contracts outside and/or inside the American River watershed, including execution of diversion agreements associated with American River Water Forum.

4. Reclamation and the Service will write a joint letter to the water districts, any member agencies, Planning Departments of cities or counties within the districts using CVP water, and other responsible parties regarding requirements under the ESA. The letter will include: (1) a discussion of Reclamation's need to ensure that CVP water is not used in a manner which could jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat, and (2) an explanation of the prohibitions described under Section 9 of the ESA in regard to take. The letter will discuss the appropriate protection measures as described here and in subsequent contract renewal consultation and will be completed within 60 days of execution of long-term contracts.

5. Conservation strategies will be in place for the districts or areas receiving CVP water. The types of strategies that could be accepted are: Habitat Conservation Planning as described in section 10(a) of the ESA; programmatic land management actions that include protection of listed and proposed species; requirements resulting from site specific Section 7 consultation; or an expansion of the existing CVP Conservation Program that adequately compensates for the direct and indirect effects of water delivery to an area

6. Reclamation will, subsequent to a determination of may affect to listed species and/or adverse modification to designated critical habitat in consultation with the Service's SFWO Endangered Species Division, consult on all Federal actions that result in changes in purpose of use for CVP water contracts, including changes from Agriculture to Agriculture/Municipal and Industrial purposes.

7. The Service and Reclamation will work together to convey information to the water districts, and individual water users (as appropriate), on listed species needs. Reclamation

will establish an outreach and education program, in collaboration with the Service, to help water users integrate implementation of the CVPIA and requirements of the contract renewal process as it relates to the ESA.

8. Interior will work closely with the water users, providing them maps of listed species habitats within their service-areas and guiding them through the consultation process to address site specific effects. Reclamation may encourage CVP contractors to complete HCPs encompassing the affected areas.

9. Reclamation and/or the Service will develop provisions for compensation for the loss of endangered species habitat resulting from the direct or indirect effects of a Reclamation action not covered under prior biological opinions that occur within the CVP service areas from the date of this opinion until completion of either: (a) contract area specific Section 7 consultation, (b) any other required site specific Section 7 consultation on the effects of the conversion in question, or (c) the completion of an HCP that encompasses the area in question.

10. Reclamation and CVP contractors will comply with all applicable opinions related to the CVP (CVPIA PBO pages 1-11 to 1-12). Flow standards that form the environmental baseline of the 1995 OCAP biological opinion will be met, and Reclamation will take no discretionary actions (e.g. new contracts, contract amendments, facility construction) that would incrementally increase diversions and alter hydrologic and environmental conditions in the Delta until any required consultation is reinitiated and completed [USFWS 2000, CVPIA PBO Appendix L (letter to the Service and NMFS from Reclamation dated October 29, 1999)].

11. Contractors are required to conform with any applicable provisions of any biological opinions addressing contract renewal so as to prohibit the use of CVP water that results in unauthorized take or conversion of wildland habitat determined to have the potential to be occupied by listed species, or violation of any terms of the contracts pertaining to the conservation of listed species. All contracts (or related biological opinions) will also stipulate Reclamation will not undertake any discretionary action allowing the delivery of CVP water to native habitat for listed species depicted on the maps attached to the 18-month notices unless clearance pursuant to the ESA has been obtained from the Service.

12. Reclamation, relative to all new and renewed contracts will informally consult with the Service's SFWO Endangered Species Division to determine the need for formal consultation prior to contract execution.

13. Reclamation will make certain that applicable measures to ensure ESA compliance for the renewal of CVP water service contracts are provided within the text of new and/or amended long-term water contracts and related actions.

14. Reclamation will provide information related to proposed new water assignments of Project water to the Service's SFWO Endangered Species Division prior to execution of the assignment.

Since the issuance of the CVPIA PBO in 2000, Reclamation has been working with the Service to address each CVPIA PBO commitment associated with long-term contract renewal of CVP water service contracts and/or refine them so that they are clearly understood and meet the original intent of avoiding and/or addressing impacts to listed species related to the renewal of long-term water contracts. Reclamation has stated that all CVPIA PBO commitments associated with long-term contract renewal of CVP water contracts will or have been addressed to ensure that the renewal of the long-term Settlement Contracts fully comports with the requirements of the CVPIA PBO and Endangered Species Act as it pertains to federal actions.

Reclamation is committed to implement all conservation measures described in the CVPIA PBO consultation. The following is a list of the more significant measures:

The Central Valley Conservation Program - A program funded by Reclamation and jointly implemented by Reclamation and the Service that funds activities and land conservation strategies that address species that have been impacted by the CVP.

CVPIA (b)(1) Other Program - A CVPIA program jointly administered by the Service and Reclamation specifically designed to address needs of listed species that have been impacted by the CVP.

Wildlife Habitat Augmentation Program - This was part of a program identified in the CVPIA PBO as a Wetlands Development Program. That program was terminated but those portions of the Wetland Development program that were related to commitments related to listed species were retained, reorganized and renamed. This program funds activities that have a general benefit to listed species, particularly those related to wetlands.

Comprehensive Mapping Program - This continuing Reclamation program develops spatial data on lands/habitat types and presence of species on lands that are related to CVP actions, specifically the service areas of the CVP contracts. This provides important information of the extent of habitats, trends in land use and known occurrences of listed species.

Central Valley Project Operations Criteria and Plan (OCAP)

The OCAP describes the coordinated operation of the Central Valley Project (CVP) and State Water Project (SWP) by Reclamation and the California Department of Water Resources. On July 30, 2004, the Service issued biological opinion 1-1-04-F-0140, which addressed the effects of operating the CVP/SWP and delivering CVP water for renewing water contracts and other actions on the threatened delta smelt (*Hypomesus transpacificus*). On February 15, 2005, the

Service issued biological opinion 1-1-05-F-0055 in response to Reclamation's November 3, 2004 request for reinitiation of formal consultation on the OCAP to address potential critical habitat issues and effects of the OCAP on delta smelt

The OCAP consultation analyzed the effects of numerous new actions on the delta smelt and its designated critical habitat, including storage of CVP and SWP water in reservoirs, water releases from reservoirs, river operations, operation of the Federal/State diversion facilities, and the CVP/SWP export-pumping operations in and through the Delta. The OCAP consultation addressed the operation of the CVP/SWP in the Sacramento Valley, and included all commitments of the SWP and CVP, such as meeting requirements of the CVPIA PBO (USFWS 2000), the obligations contained in the Central Valley Water Quality Control Board water right permits, obligations of CVP water service contracts, Sacramento River Settlement contracts, San Joaquin exchange contracts, and other requirements. Therefore, the OCAP BO addressed all the aquatic effects of operating the CVP/SWP.

In contrast, the Service's consultations on the long-term water-service contract renewals addressing the diversion of water at prescribed diversion points and times for the use of that water on a specified land area (the contractors' service area). All renewal contracts, while identifying a full contract amount, recognize that the delivery of full contract amount is subject to availability of water and other obligations of the CVP (such as CVPIA and biological ESA consultation requirements). In other words, the contracts create a demand (among other demands) for CVP water and the OCAP consultation addresses how the CVP/SWP projects are operated to meet those demands. There clearly is a linkage between contract renewals and the operation of the CVP/SWP. These linkages must, and are being addressed in separate but parallel individual consultations such that all of the possible effects on listed species and designated critical habitat are being identified and consulted on.

Central Valley Project Long-term Water Service Contract Renewals

In addition to the City of Roseville contract analyzed in this consultation, Reclamation either has, or intends to renew about 119 CVP Water Service contracts throughout the Central Valley. All of the renewing CVP contracts are required by the *Biological Opinion on Implementation of the CVPIA (Central Valley Project Improvement Plan) and Continued Operation and Maintenance of the CVP* (CVPIA PBO) to incorporate provisions needed to comply with applicable law, including provisions of the CVPIA. Renewal contracts will incorporate applicable provisions of the CVPIA, including payment into the CVP Restoration Fund.

The CVP water service contracts include an annual maximum quantity of approximately 5.6 million af per year of CVP water and provide water service to approximately 3.2 million irrigable acres of land and an urban population in excess of 4.3 million people. The long term water contracts renewals, while authorizing a maximum contract amount, recognize that the delivery of the entire contract amount is subject to the availability of water and other CVP obligations.

For efficiency, Reclamation has grouped the CVP water-service contract renewal environmental documents by similar regional issues. Reclamation requested separate consultations for the following CVP regions: Shasta and Trinity Divisions, Sacramento River Division (Corning Canal, Tehama-Colusa Canal, and Black Butte Units), Feather River Water District, American River Division, Contra Costa Canal Unit, San Felipe Division, Delta-Mendota Canal Unit, and the West San Joaquin Division.

Shasta and Trinity Divisions

On August 17, 2004 the SFWO determined that renewing the CVP water service contract would not likely adverse affect listed species in four of the ten districts in the Division: Shasta County Water Agency, Bella Vista Water District (WD), Shasta Community Service District (CSD), and Mountain Gate CSD. On November 12, 2004 the same conclusion was reached for: City of Redding, City of Shasta Lake, and Clear Creek CSD. On March 17, 2005 consultation was completed on the remaining CVP contracts in this Division: the contracts for the Centerville Community Service Area, Shasta County Service Area 25 – Keswick, and the U.S. Forest Service – Centimundi Marina.

Sacramento River Division

On August 17, 2004 the SFWO determined that renewing the water service contract would not likely adverse affect listed species in 11 of the 20 districts in the Division: 4E WD, Colusa County WD, Corning WD, County of Colusa (including 7 sub-contracts), Davis WD, Dunnigan WD, Feather WD, Kanawha WD, La Grande WD, Orland-Artois WD, Stony Creek WD, and Westside WD. On November 12, 2004 the same conclusion was reached for Thomes Creek WD and reconfirmed for Corning WD, and Orland-Artois WD based on updated Exhibit A maps. On February 14, 2005 the same conclusion was reached for Proberta WD, and on February 15, 2005 informal consultation was completed on the contracts for Glide WD, Kirkwood WD, Stonyford WD, U.S. Forest Service, and Whitney Construction, Inc.

Sacramento River Settlement Contracts

In addition to the water service contracts, SFWO completed consultation on long-term renewal of 138 Sacramento River Settlement Contracts on February 18, 2005. On March 9, 2005 the consultation on the renewal of the Settlement Contract for the Natomas Central Mutual Water Company was completed; on May 12, 2005 consultation was completed on the renewal of the Settlement contracts for Anderson-Cottonwood Irrigation District and the City of Redding, and on May 26, 2005 consultation was completed on the long-term renewal of the water service contract for Colusa Drain Mutual Water Company. These contracts provide for a total of about 1.8 million af of base supply (based on prior water rights) and about 400,000 af of CVP contract water to the Settlement contractors.

Delta Division

Delta-Mendota Canal (DMC) Unit: On February 15, 2005 the SFWO determined that renewing the water service contract would not likely adverse affect listed species in 20of the 21 districts in the DMC Unit. Consultation has also been completed for the contract to provide water to the San Joaquin Veterans Cemetery. The contract for the City of Tracy has been deferred pending the conclusion of contract negotiations with Reclamation

Contra Costa County Water District: On March 11, 2005 the SFWO completed a formal consultation and conference on the renewal of this long-term renewal of this water service contract.

Friant Division, Cross Valley Unit, Hidden and Buchannan Units

The Friant Division consists of three units having a total of forty-one water districts: the Cross Valley Unit consists of eight water districts; and the Hidden and Buchannan Divisions. The consultation for the Friant and Cross Valley Division Contractors (FWS 1-1-01-F-0825) was completed on January 19, 2001. The CVP water delivery contracts for the Cross Valley Unit have never been executed and the Friant Division is the subject of on-going litigation that has challenged the validity of the biological opinions issued for these water delivery contracts

Operation and Maintenance of Central Valley Project Water Conveyance

The CVPIA programmatic biological opinion (CVPIA PBO) anticipated that it may be desirable to cover some operations and maintenance (O&M) activities under long term contract renewal biological opinions (page 2-46). Pursuant to pages 2-46 to 2-49 of the CVPIA PBO and requirements of the biological opinions for CVP Interim Water-Service Renewal Contracts (1995, 1998, 2000, 2002), Reclamation has prepared regional operations and maintenance plans (O&M Plans) to describe the general and routine maintenance and operational procedures Reclamation conducts on their CVP facilities throughout California. Because Reclamation aggregated information at different geographic scales and levels of specificity for long term contracts and facility operation and maintenance, the Service determined it was necessary to conduct separate, but concurrent, consultation on operation and maintenance to meet Reclamation's target dates for long term contract renewal. On February 9, 2005 SFWO issued a biological opinion covering the O&M of the federal features in the American River Division. The service has also completed consultation on the O&M Plans for the Northern California Area Office (NCAO), the Central California Area Office (CCAO), and the South Central California Area Office (SCCAO), which includes the *Operations and Maintenance Guidelines, Integrated Pest Management Plans*, and Reclamation's *Listed Species Manual*. Those consultations analyzed effects of operation and maintenance of the CVP facilities associated with contract renewals, other than those effects analyzed in the OCAP biological opinion. The Service issued the biological opinion for the CCAO on February 9, 2005 (Service file number 1-1-05-F-0038), the biological opinion for the NCAO on February 14, 2005 (Service file number 1-1-05-F-0057)

and the biological opinion for the SCCAO on February 17, 2005 (Service file number 1-1-05-F-0368).

Santa Clara Valley Water District

The Project Description for the 2002 interim contract renewal consultation included a commitment that Santa Clara County Water District would complete a biological assessment for their stream maintenance program. The biological assessment was completed and the Sacramento Fish and Wildlife Office issued a no jeopardy biological opinion on a 10-year stream maintenance permit on July 5, 2002 (Service file no. 1-1-F-0314)

Conservation Measures

CVPIA workplans provide information on accomplishments of the CVPIA Habitat Restoration Program for listed species for 2002-2003. The status of other conservation measures that are part of the environmental baseline is contained in the information accompanying the request for consultation (Attachment 5). Reclamation has committed to continued implementation of the conservation actions included in the CVPIA programmatic biological opinion of 2001 (Service File No. 1-1-98-F-0124).

Newly Listed Species and Designated Critical Habitat Since the 2004 Biological Opinion

Critical Habitat – Conformance with Gifford Pinchot

This document does not rely on the regulatory definition of "destruction or adverse modification" of critical habitat at 50 CFR 402.02. Instead, we have relied upon the statute and the August 6, 2004, Ninth Circuit Court of Appeals decision in *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service* (No. 03-35279) to complete the section 7(a)(2) analysis with respect to critical habitat

Central California tiger salamander Distinct Population Segment (DPS)

Status: The California tiger salamander was federally listed as threatened throughout its range on August 4, 2004 (69 FR 47213). This rule finalized the proposed reclassification from endangered to threatened of the Santa Barbara and Sonoma distinct population segments (DPSs) of California tiger salamander, the proposed listing of the Central DPS of the California tiger salamander as threatened, and eliminated listing status for the individual DPSs. Detailed information about the Central population of the tiger salamander can be obtained in this document. In the final listing rule we also finalized a special rule exempting routine ranching activities from the definition of take in section 9 of the Endangered Species Act and Service

regulations at 50 CFR 17.3). The special rule was finalized in accordance with section 4(d) of the Endangered Species Act.

On October 13, 2004, a complaint was filed in the U.S. District Court for the Northern District of California (*Center for Biological Diversity and Environmental Defense Council v. U.S. Fish and Wildlife Service et al.* (Case No. C-04 4324)). On August 19, 2005, a court order was filed on the above complaint, which upheld the section 4(d) rule exempting routine ranching activities from section 9 prohibitions, but vacated the downlisting of the Santa Barbara and Sonoma populations and reinstated their endangered status as distinct population segments. By vacating the downlisting of the other two DPSs, this action also re-established separate listing status for the Central DPS of the California tiger salamander as threatened.

Tiger salamanders continue to be threatened by human activities. Current factors associated with declining populations of the tiger salamander include continued destruction, degradation, and fragmentation of habitat due to urbanization, and conversion to intensive agriculture. Other factors that contribute to the decline of the species include hybridization with nonnative tiger salamanders and nonnative predators. Isolation and fragmentation of habitats within many watersheds precludes dispersal between sub-populations and jeopardized the viability of metapopulations (broadly defined as multiple subpopulations that occasionally exchange individuals through dispersal, and are capable of colonizing or "rescuing" extinct habitat patches).

California tiger salamander occurs in the Coast Ranges in southern Sonoma County, San Mateo County south to San Luis Obispo County, and northwestern Santa Barbara County. In the Central Valley and Sierra Nevada foothills the species is patchily distributed from northern Yolo County southward to northwestern Kern County and northern Tulare and Kings County.

Species Description and Life History. The tiger salamander is a large, stocky, terrestrial salamander with a broad, rounded snout. Adults may reach a total length of 207 mm (8.2 in). Tiger salamanders exhibit sexual dimorphism; males tend to be larger than females. Coloration of the tiger salamander is white or yellowish markings against black. As adults, tiger salamanders tend to have the creamy yellow to white spotting on the sides with much less on the top, whereas other tiger salamanders have brighter yellow spotting with more on the top. The eggs of tiger salamander are usually laid singly or in small clusters of two to four, whereas the eastern tiger salamander lays eggs in larger globular or oblong masses consisting of from 23 to 110 eggs (Bishop 1943; Stebbins 1962).

Tiger salamanders require both wetland and adjacent upland habitat to complete their life cycle (Shaffer *et al* 1993). During the rainy season tiger salamanders breed in wetlands, where their aquatic larvae complete their development and metamorphosis. At the onset of the dry season metamorphosed juveniles and adults retreat to burrows in nearby uplands and enter estivation (a state of dormancy or inactivity in response to hot, dry weather). Each year breeding salamanders migrate back and forth between their upland estivation habitat and wetland breeding habitat.

Vernal pools are important California tiger salamander breeding habitat in the Central Valley, Southern San Joaquin Valley, and Sonoma County. Stock ponds have become important breeding habitat in the Bay Area, Coast Ranges, and Santa Barbara regions, largely due to destruction of vernal pool habitat in these regions

Tiger salamanders spend much of their adult lives in small mammal burrows, particularly those of ground squirrels and pocket gophers (Loredo and Van Vuren 1996; Trenham 1998a). During summer estivation, tiger salamanders apparently eat very little, but they may emerge from estivation to feed during cool, moist nights (Shaffer *et al* 1993). Between November and January, the first heavy fall and winter rains prompt adults to emerge from the burrows at night, feed, and migrate to the breeding ponds (Storer 1925; Stebbins 1985; Shaffer *et al* 1993, Loredo and Van Vuren 1996; Trenham 1998b). Migration distances between estivation and breeding sites vary widely, with most observations ranging from 100 to 1606 m (330 to 5280 ft.) (Austin and Shaffer 1992; Hunt 1998; Trenham 1998a).

Factors Affecting Population Size. Populations of tiger salamanders likely fluctuate from year to year. When conditions are favorable, the tiger salamanders may experience extremely high rates of reproduction and thus produce large numbers of dispersing young with a concomitant increase in the number of occupied sites. In contrast, tiger salamander populations may temporarily decrease in an area when conditions are stressful (*e.g.* drought). Nonnative predators such as bullfrogs, mosquitofish, sunfish, catfish, and bluegill may affect local population size by diminishing or eliminating California tiger salamander larvae in individual ponds. Control of burrowing mammals also may affect local population size of California tiger salamander by destroying estivation habitat and possibly estivating salamanders. Lifetime reproductive success for California and other tiger salamanders is low; the mechanisms for recruitment depend on numerous factors, including migration, terrestrial survival, and population turnover, whose interaction is not well understood (Trenham 1998b). It is thought that reproductive output in most years is not sufficient to maintain populations, which suggests that the species requires occasional large breeding events to prevent extirpation (Trenham *et al.* 2000). With such low recruitment, isolated populations are susceptible to unusual, randomly occurring natural events as well as from human-caused factors that reduce breeding success and individual survival. Factors that repeatedly lower breeding success in isolated vernal pools or ponds can quickly lead to localized extirpation.

Historical Distribution. Historically, the tiger salamander inhabited low elevation grassland and oak savanna plant communities of the Central Valley, adjacent foothills, and the inner Coast Ranges in California (Storer 1925; Shaffer *et al.* 1993) from sea level up to about 1,500 feet. Along the Coast Ranges of California, the species occurred from the Santa Rosa area of Sonoma County south to the vicinity of Buellton in Santa Barbara County. In the Central Valley and surrounding foothills, the species occurred from northern Yolo County (Dunnigan) and southern Butte County southward to northwestern Kern County and northern Tulare County.

Reasons for Decline and Threats to Survival. A primary cause of the decline of the California tiger salamander is the conversion of habitat for urban and agricultural activities (D. Wake *in litt.* 1992; T. Jones *in litt.* 1993, Shaffer *et al* 1993, U.S. Fish and Wildlife Service 2004b, CNDDB 2004). Some of the largest remaining subpopulations are in areas severely threatened by new urban development, including the Livermore Valley, Santa Clara Valley, and Fresno areas. In addition to direct loss of habitat, the widespread conversion of land to residential and agricultural uses has fragmented habitat throughout the range of the tiger salamander and has isolated remaining populations (Shaffer *et al.* 1993). Urban effects include housing, commercial, and industrial developments; road construction and widening; golf course construction and maintenance; trash dumping, landfill operation and expansion; and operation of gravel mines and quarries.

Agricultural effects include discing and deep-ripping; and cultivation, planting and maintenance of row crops, orchards, and vineyards. Historically, approximately 15.59 million acres of valley and coastal grasslands blue oak/foothill pine, valley oak, or mixed hardwood lands (Kuchler 1988), existed. Urbanization and intensive agriculture have eliminated virtually all valley grassland and oak savanna habitat from the Central Valley floor. Currently there are about 1.1 million acres where the tiger salamander potentially is still extant

The relative loss of habitat has been even more extreme with respect to vernal pools, the historic breeding habitat of the tiger salamander. Remaining vernal pool complexes are now fragmented and reduced in area. Where vernal pools remain, they are often disturbed and degraded by drainage modification, overgrazing, ORV use, non-native plant invasion, trash dumping, road construction, and urban development (Jones and Stokes Associates 1987, U.S. Fish and Wildlife Service 1994e, Keeler-Wolf *et al.* 1998)

While the California tiger salamander does breed successfully in stockponds, they often are poorer habitat for tiger salamanders than natural vernal pools. Hydroperiods may be so short that larvae cannot metamorphose, or so long that predatory fish and bullfrogs (*Rana catesbeiana*) can colonize the pond (Shaffer *et al.* 1993, Seymour and Westphal 1994). Extirpation of a tiger salamander occurrence is likely if fish are introduced (Shaffer *et al.* 1993, Seymour and Westphal 1994).

A number of nonnative species have adversely affected the California tiger salamander through predation and competition. A strong negative correlation exists between bullfrog presence and tiger salamander presence (Shaffer *et al.* 1993, Seymour and Westphal 1994). Morey and Guinn (1992) documented a shift in amphibian community composition at a vernal pool complex, with salamanders becoming proportionally less abundant as bullfrogs increased in number. Western mosquitofish (*Gambusia affinis*) have also likely adversely affected tiger salamanders via predation and competition. Loredo-Prendeville *et al.* (1994) failed to find any tiger salamanders inhabiting ponds containing mosquitofish. About 50 local mosquito abatement districts plant the fish throughout the state (Boyce *in litt.* 1994). Wild pigs (*Sus scrofa*) have had pronounced negative ecological effects on tiger salamanders (Waithman *et al.* 1999). Detrimental effects of wild pigs include both predation and habitat modification.

A number of other non-native species have either been directly implicated in predation of tiger salamander or appear to have the potential for such. Introductions of largemouth bass (*Micropterus salmoides*), bluegill (*Lepomis macrochirus*), catfish (*Ictalurus* spp.), and fathead minnows (*Pimephales promelas*) likely eliminated tiger salamanders from several breeding sites in Santa Barbara County (U.S. Fish and Wildlife Service 2000b). Non-native sunfish, catfish, and bullheads (*Ameiurus* spp.) have been and still are widely planted in ponds in California for sportfishing. Crayfish (*Pacifastacus*, *Oreonectes*, and *Procambarus* spp.) are also known to prey on California newt eggs and larvae, despite toxins they produce (Gamradt and Kats 1996).

Like most amphibians, tiger salamanders inhabit both aquatic and terrestrial habitats at different stages in their life cycle. Therefore, they are exposed to both aquatic and terrestrial pollutants due to their highly permeable skin (Blaustein and Wake 1990). Oil and other contaminants from road runoff have been detected in ponds and linked to die-offs of and deformities in tiger salamanders and spadefoot toads (*Scaphiopus hammondii*) as well as die-offs of invertebrates that form most of both species' prey base (S. Sweet, in litt., 1993).

During 2001, the 23 counties where tiger salamanders occur used over 105 million pounds of pesticides (California Department of Pesticide Regulation Internet website, December 2002), some of which are extremely toxic to aquatic organisms, including amphibians and the organisms on which they prey. Some of these pesticides, such as chlorpyrifos, malathion, and endosulfin are cholenesterase inhibitors. Reduced cholenesterase activity has been linked to uncoordinated swimming, increased vulnerability to predation, depressed growth, and increased mortality in tadpoles (Berrill *et al.* 1998, Bridges 1997, de Lamas *et al.* 1985, Rosenbaum *et al.* 1988, Sparling *et al.* 2001). Even when toxic or detectable amounts of pesticides are not found in breeding ponds or groundwater, salamanders may still be affected, particularly by chemicals applied during the migration and dispersal seasons. Sparling *et al.* (2001) examined pesticide usage and amphibian (*Rana* and *Bufo* spp.) population declines in California and provided evidence that pesticides are instrumental in declines of these species.

Widespread control of ground squirrels and pocket gophers may pose a significant threat to the tiger salamander. Ground squirrel control is done by trapping, shooting, fumigation, toxic (including anticoagulant) baits, and habitat modification, including deep-ripping of burrow areas (UCIPM Internet website, January 2003). Ground squirrel and pocket gopher control may have the indirect effect of reducing the number of upland burrows available to specific tiger salamander subpopulations (Loredo-Prendeville *et al.* 1994).

Light to moderate livestock (cattle, sheep, and horses) grazing is generally thought to be compatible with continued successful use of rangelands by the tiger salamander, provided the grazed areas do not also have intensive burrowing rodent control efforts (T. Jones, in litt. 1993, Shaffer *et al.* 1993, S. Sweet, pers. comm. 1998, Shaffer and Trenham, pers. comm., 2003). By maintaining shorter vegetation, grazing may make areas more suitable for ground squirrels whose burrows are essential to tiger salamanders.

Conservation Needs. Conservation of the California tiger salamander requires a five-pronged approach: (1) maintaining the current genetic structure across the species' range; (2) maintaining the current geographic, elevational, and ecological distribution; (3) protecting the hydrology and water quality of breeding pools and ponds; (4) retaining or providing for connectivity between breeding locations for genetic exchange and recolonization; and (5) protecting sufficient barrier-free upland habitat around each breeding location to allow for sufficient survival and recruitment to maintain a breeding population over the long term. Specific actions that help meet these goals include, but are not limited to, protection, restoration, and management of large blocks of contiguous aquatic and terrestrial habitat; management of stock ponds to eliminate or reduce populations of nonnative predators; elimination of nonnative tiger salamanders and their hybrids; and reduced exposure to contaminants, particularly in the vulnerable larval stages

Status of the Central DPS of the California Tiger Salamander in the Action Area

The 2004 interim renewal biological opinion included a conference opinion on the effects of interim contract renewal on the then proposed Central Distinct Population Segment of the California tiger salamander. We hereby incorporate by reference that conference opinion and adopt it as our biological opinion for the 2006 to 2008 interim contract renewals for the Cross Valley Unit and the SCVWD. The California tiger salamander has been documented in the service area of the following interim contractors:

- Cross Valley Unit: County of Fresno, Hills Valley ID, Tri-Valley ID
- Santa Clara Valley Water District (SCVWD)

According to information provided in Attachment 6 of the information accompanying Reclamation's request for consultation, land use within most of the service areas of interim contractors with California tiger salamander records have been fairly stable for the period from 1993 to 2000, with the exception of the SCVWD, which showed an increase of 1,358 acres of urban lands (changed from irrigated agriculture, grassland, and woodland); and an increase of 38 acres of grassland (changed from irrigated agriculture and shrubland).

Critical Habitat

In determining which areas to designate as critical habitat, the Service considers those physical and biological features that are essential to a species' conservation and that may require special management considerations or protection (50 CFR 424.12(b)).

The Service is required to list the known primary constituent elements together with the critical habitat description. Such physical and biological features include, but are not limited to, the following:

1. space for individual and population growth, and for normal behavior;

2. food, water, air, light, minerals, or other nutritional or physiological requirements;

3. cover or shelter;

4. sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and

5. generally, habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

Vernal Pool Fairy Shrimp Critical Habitat

We designated critical habitat for vernal pool fairy shrimp on August 11, 2005 (70 FR 46924) A total of 597,821 acres was designated in Jackson County, Oregon; and Alameda, Amador, Butte, Contra Costa, Fresno, Glenn, Kings, Madera, Mariposa, Merced, Monterey, Napa, Placer, Sacramento, San Benito, San Joaquin, San Luis Obispo, Santa Barbara, Shasta, Solano, Stanislaus, Tehama, Tulare, Ventura, and Yuba counties, California.

Primary Constituent Elements (PCEs)

In designating critical habitat for Sacramento Orcutt grass, slender Orcutt grass, vernal pool tadpole shrimp, and vernal pool fairy shrimp, the Service identified the primary constituent elements essential to the conservation of these four vernal pool species. These features contribute to the filling and drying of the vernal pool, maintain suitable period of pool inundation, and maintain water quality and soil moisture to enable each species to complete its life cycle. These features include, but are not limited to, the restrictive underlying soil layers that perch water for extended periods of time, the surface soils associated with each species, and the topography that captures and delivers water to the vernal pools themselves.

Critical habitats for vernal pool fairy shrimp possess the following primary constituent elements (PCEs):

1) Topographic features characterized by a mound and intermound complex within a matrix of surrounding uplands that result in continuously, or intermittently, flowing surface water in the depressional features, including swales, connecting the pools described in PCE 2, and which provide for dispersal and promote hydroperiods of adequate length in the pools.

2) Depressional features, including isolated vernal pools, together with underlying restrictive soil layers, that become inundated during winter rains and that continuously hold water in all but the driest years

a) for a minimum of 18 days (Helm 1998); thereby providing adequate water for incubation, maturation, and reproduction; or

b) or whose soils are saturated for a period long enough to promote germination, flowering, and seed production of predominantly annual native wetland species, and typically exclude both native and nonnative upland plants. As these features are inundated on a seasonal basis, they do not promote the development of obligate wetland vegetation habitats typical of permanently flooded emergent wetlands.

3) Sources of food in the pools, expected to be detritus contributed by overland flow from the pools' watershed, or the results of biological processes within the pools themselves, such as single-celled bacteria, algae, and dead organic matter, to provide for feeding.

4) Structure within the pools described in PCE 2, consisting of organic and inorganic materials such as living and dead plants from species adapted to seasonally inundated environments, rocks, and other inorganic debris that may be washed, blown, or otherwise transported into the pools, that provide shelter.

Conservation Function of Critical Habitat

Rather than designate every area containing PCEs, we designated only those areas which available evidence clearly demonstrated were essential to the conservation of the species. Areas for which evidence available at the time was less certain were not included, although we believe these areas are important to the species and we may include them in future recovery plans.

In our final determination of critical habitat for vernal pool fairy shrimp, we determined that areas essential to the conservation of the species represent at least one of the following:

1) the geographic range of the species,

2) the ecological distribution of the species, with the purpose of maintaining the full range of habitat types and characteristics in which the species is found;

3) areas necessary to allow movement of cysts, pollen, and seeds between areas representative of the geographic and ecological distribution of the species, and to accommodate their unique life history that may involve soil dormancy as cyst or seed for decades;

4) areas with the largest unfragmented vernal pool complexes or which already possess a measure of protection.

Status of Vernal Pool Fairy Shrimp Critical Habitat in the Action Area

Unit 24A and B, Madera Unit, Madera and Fresno counties (28,950 ac)

This unit occurs within Cross Valley Unit, County of Fresno service area. Land use change information provided by Reclamation in Attachment 6 of the information accompanying the request for consultation indicates relatively stable land use in this interim contractor service area between 1993 and 2000. The unit consists of two subunits (24A–24B) and is located between the Fresno River and San Joaquin River. This unit was known to be occupied by vernal pool fairy shrimp at the time of listing, is currently occupied, and contains the following vernal pool and associated upland features that are essential for the conservation of the species: mound and inter-mound topography (PCE 1, PCE 2) within a matrix of surrounding upland habitat which provide for cyst dispersal and adequate pool hydroperiods, and vernal pool wetland features

within a matrix of upland habitat which provide for food, shelter, hatching, growth, and reproduction (PCE 3, PCE 4). This unit represents hardpan vernal pool complexes composed of numerous small pools and swales on mima mound topography (Holland 1998, Keeler-Wolf et al. 1998, CNDDB 2001). Special management considerations within this unit include: habitat conversion to urban uses or intensive agriculture, hydrologic disruptions or modifications which may disturb vernal pool habitats and restrict or isolate vernal pool tadpole shrimp distribution, management of grazing animals, management of off-road recreational vehicles, and control of invasive plant species.

Information provided in Attachment 6 of the information accompanying Reclamation's request for consultation, land use within the County of Fresno showed no change in acreage within all land use categories between 1993 and 2000. We are aware of changes that have occurred since then in the area to the south and east of Millerton Lake in Fresno Service Area #34, where grassland has been converted to urban uses in the Brighton Crest development.

Unit 27, Pixley Unit, Tulare County (15,465 ac)

This unit occurs within the Cross Valley Unit, Pixley Irrigation District. Land use change information provided by Reclamation in Attachment 6 of the information accompanying the request for consultation indicates relatively stable land use in this interim contractor service area between 1993 and 2000. The unit contains four subunits (27A–27D) and is located south of the Cities of Hanford and Lemoore, north of the City of Wasco, and east of the City of the Tulare. This unit was known to be occupied by vernal pool fairy shrimp at the time of listing, is currently occupied, and contains the following vernal pool and associated upland features that are essential for the conservation of the species: mound and inter-mound topography (PCE 1, PCE 2) within a matrix of surrounding upland habitat which provide for cyst dispersal and adequate pool hydroperiods, and vernal pool wetland features within a matrix of upland habitat which provide for food, shelter, hatching, growth, and reproduction (PCE 3, PCE 4). This area represents the southern extent of vernal pool fairy shrimp range along the eastern margin of the Central Valley, and is the largest contiguous vernal pool habitat in this region (Holland 1998; CNDDB 2001). Special management considerations within this unit include: habitat conversion to urban uses or intensive agriculture, hydrologic disruptions or modifications which may disturb vernal pool habitats and restrict or isolate vernal pool tadpole shrimp distribution, management of grazing animals, management of off-road recreational vehicles, and control of invasive plant species.

Information provided in Attachment 6 of the information accompanying Reclamation's request for consultation, land use within the Pixley Irrigation District showed an increase of 88 acres of urban lands (changed from irrigated agriculture); a conversion of 13 acres of grassland to irrigated agriculture; and an additional 240 acres of dryland agriculture (from irrigated agriculture) between 1993 and 2000

Critical Habitat for the Central Population of the California Tiger Salamander

We designated 199,109 acres of critical habitat for the central population of the California tiger salamander on August 23, 2005 (70 FR 49380) in Alameda, Amador, Calaveras, Contra Costa, Fresno, Kern, Kings, Madera, Mariposa, Merced, Monterey, Sacramento, San Benito, San Joaquin, San Luis Obispo, Santa Clara, Solano, Stanislaus, Tulare, and Yolo Counties, California

We have recognized four geographic regions in our critical habitat designation – the Central Valley, the Southern San Joaquin, the East Bay, and the Central Coast. The California tiger salamander is highly structured genetically, and the four geographic regions represent this genetic structure within the central population. Maintenance of this genetic structure is essential to the conservation of the Central population of the California tiger salamander (70 FR 49380). The designated critical habitat is designed to provide essential aquatic and upland habitat for salamanders to maintain populations over the long term in each of the four geographic regions.

Based on our current knowledge of the life history, biology, and ecology of the Central population of the California tiger salamander, and the relationship of its essential life history functions to its habitat, we have identified the following primary constituent elements:

1) *Aquatic habitat*. Standing bodies of fresh water (including natural and manmade (e.g., stock) ponds, vernal pools, and other ephemeral or permanent water bodies which typically support inundation during winter rains and hold water for a minimum of 12 weeks in a year of average rainfall. This PCE provides space, food, and cover essential to support reproduction and to sustain early life history stages of larval and juvenile California tiger salamanders before they are capable of surviving in upland habitats. During periods of drought or below-average rainfall, these aquatic habitats may not hold water long enough for individuals to complete metamorphosis; however, these sites still would be considered essential because they constitute breeding habitat in years of average rainfall.

2) *Upland habitat surrounding aquatic habitat*. Upland habitats adjacent and accessible to and from breeding ponds that contain small mammal burrows or other underground habitat that are essential to California tiger salamanders for food, shelter, and protection from the elements and predation. This PCE provides space for juveniles and adults to disperse and to forage, and underground refugia for protection from dessication and predators, and in which they can feed.

3) *Barrier-free dispersal habitat*. Accessible upland dispersal habitat between occupied locations that allows for movement between such sites. The third PCE provides habitat essential for California tiger salamanders to move freely across the landscape in search of aquatic breeding habitat and other upland habitats. Dispersal habitat is essential for the California tiger salamander to maintain gene flow and to recolonize sites that may become extirpated. Essential dispersal habitats generally consist of upland areas adjacent to essential aquatic habitats that are not isolated from aquatic habitats by barriers that salamanders cannot cross. Agricultural lands such as row crops, orchards, vineyards, and pastures do not constitute barriers for dispersal

between locations within 0.70 miles of each other, a distance which has been predicted would be likely to capture 99 percent of interpond movement of breeding adults (Trenham pers. Comm. 2004 in 70 FR 49380).

Status of Critical Habitat for California Tiger Salamander in the Action Area

Southern San Joaquin Valley Geographic Region Unit 2 – Northeast Fresno (4,961 ac)

This unit is located in the service area of Cross Valley Unit contractor County of Fresno. Land use change information provided by Reclamation in Attachment 6 of the information accompanying the request for consultation indicates relatively stable land use in this interim contractor service area between 1993 and 2000. This unit is located northeast of Fresno, southwest of Millerton Lake, east of Friant Road, and generally west of Academy. It represents the Southern Sierra Foothills vernal pool region within Fresno County, the northern end of the Southern San Joaquin Geographic Region, and the southern portion of the species' distribution in the San Joaquin Valley. This unit contains all three of the PCEs and six extant occurrences. Threats that require special management include urban development and construction of associated infrastructure, including roads, and agricultural conversion. This unit is essential for the conservation of the California tiger salamander because it is needed to maintain the current geographic and ecological distribution of the species in the Southern San Joaquin Valley Geographic Region.

Information provided in Attachment 6 of the information accompanying Reclamation's request for consultation, land use within the County of Fresno showed no change in acreage within all land use categories between 1993 and 2000. We are aware of changes that have occurred since then in the area to the south and east of Millerton Lake in Fresno Service Area #34, where grassland has been converted to urban uses in the Brighton Crest development.

Southern San Joaquin Valley Geographic Region Units 3a and 3b – Hills Valley Unit, Fresno and Tulare Counties (4,181 ac)

This unit occurs within the Cross Valley Unit, Hills Valley Irrigation District and Tri-Valley Water District. Land use change information provided by Reclamation in Attachment 6 of the information accompanying the request for consultation indicates relatively stable land use in this interim contractor service area between 1993 and 2000. This unit is located south of State Highway 180, generally west of George Smith and Sand Creek Roads, north of Curtis Mountain, and east of Cove Road. It represents the foothills of northwest Tulare County, the Southern Sierra Foothills vernal pool region, and the southeastern portion of the species' distribution in the Southern San Joaquin Valley Geographic Region and rangewide. This unit contains all three of the PCEs and five extant occurrences. Threats that require special management include urban development and construction of associated infrastructure, including roads; and agricultural conversion. This unit is essential for the conservation of the California tiger salamander because it is needed to maintain the current geographic and ecological distribution of the species in the Southern San Joaquin Valley Geographic Region.

Information provided in Attachment 6 of the information accompanying Reclamation's request for consultation, land use within the Hills Valley Irrigation District showed no change in acreage within all land use categories between 1993 and 2000.

East Bay Geographic Region
Santa Clara County Units 3, 5, 6, 7, 8, 9, 10a and 10b, 11, 12; 39,450 acres

These units occur within the CVP place of use for the SCVWD. The critical habitat units in Santa Clara County represent the north central portion of the California tiger salamander's distribution within the East Bay Geographic Region. Special ecological regions represented include the Livermore and Central Coast vernal pool regions. These units represent a unique combination of genetic, ecological, geographic features that are necessary to conserve the Central population of the California tiger salamander. They are essential to maintain the genetic structure of the salamander, and the geographic and ecological distribution of the salamander both in the East Bay Geographic Region and the entire range. Land ownership of these units is primarily private with the exception of 2,767 acres of state lands owned by the University of California. According to information provided in Attachment 6 of the information accompanying Reclamation's request for consultation, land use within the SCVWD showed an increase of 1,358 acres of urban lands (changed from irrigated agriculture, grassland, and woodland); and an increase of 38 acres of grassland (changed from irrigated agriculture and shrubland) between 1993 and 2000.

Proposed Critical Habitat for the California Red-Legged Frog

We proposed 737,912 acres of critical habitat for the California red-legged frog on November 3, 2005 (70 FR 66906) in 23 California counties.

Primary Constituent Elements (PCEs)

Based on our current knowledge of the life history, biology, and ecology of the California red-legged frog, and the relationship of its essential life history functions to its habitat, we have identified the following primary constituent elements:

1) Aquatic Breeding Habitat. Essential breeding habitat is defined as standing bodies of fresh water (with salinities less than 7.0 parts per thousand), including natural and manmade ponds, slow moving streams or pools within streams, and other ephemeral or permanent water bodies that typically become inundated during winter rains and hold water for a minimum of 15 weeks in all but the driest of years. This amount of time would allow the frog to complete the aquatic portion of its life cycle.

2) Non-breeding Aquatic Habitat. Essential non-breeding habitat is defined as fresh water habitats as described in (1) above which may or may not hold water long enough for the subspecies to hatch and complete its aquatic lifecycle which provides shelter, foraging, predator avoidance, and aquatic dispersal habitat for juvenile and adult California red-legged frogs. Other

wetland habitat which would be included in this PCE would include, but would not be limited to, plunge pools within intermittent creeks, seeps, quiet water refugia during high water flows, and springs of sufficient flow to withstand the summer dry period.

3) Upland Habitat. Essential upland habitat is defined as upland areas within 200 feet of the surrounding aquatic habitat comprised of various vegetational series such as grasslands, woodlands, or wetland or riparian plant species. Upland habitat includes natural or manmade structures such as the spaces under boulders or rocks, organic debris such as downed trees or logs; agricultural features and light construction debris such as drains, watering troughs; abandoned sheds, or under stacks of hay, brush piles, or other vegetation.

4) Dispersal Habitat. Essential dispersal habitat is defined as accessible upland or wetland habitat within designated critical habitat units and between occupied locations within 0.7 miles of each other that allows for movement between such sites. Dispersal habitat includes various barrier-free natural habitats and altered habitats such as agricultural fields. Dispersal barriers are such things as heavily traveled roads (Vos and Chardon 1998) that possess no bridges or culverts. Dispersal habitat does not include moderate to high density urban or industrial developments with large expanses of asphalt or concrete, and large reservoirs over 50 acres, which do not contain PCE 1, 2, or 3. Accessible dispersal habitat provides opportunities for (a) movement and establishment of home ranges by juvenile recruits; (b) maintaining gene flow by the movement of juveniles and adults between subpopulations; and (c) recolonization of breeding habitat after local extirpations.

Conservation Function of Critical Habitat

Rather than designate every area containing PCEs, we designated only those areas which available evidence clearly demonstrated were essential to the conservation of the species. Areas for which evidence available at the time was less certain were not included, although we believe those areas are important to the species and we may include them in future recovery plans.

In our proposal to designate critical habitat for the California red-legged frog, we determined that areas essential to the conservation of the species represent provide the following:

1) maintain the current geographic, elevational, and ecological distribution of the subspecies;

2) maintain the current population structure across the subspecies' range;

3) retain or provide for connectivity between breeding sites that allows for the continued existence of viable and essential metapopulations, despite fluctuations in the status of subpopulations;

4) large blocks of occupied habitat, representing source populations or unique ecological characteristics; and

5) sufficient upland habitat around each breeding location to allow survival and recruitment sufficient to maintain a breeding population over the long term.

Status of Proposed Critical Habitat for the California Red-Legged Frog in the Action Area

STC-1A and 1B, Santa Clara County (57,784 acres)

These units occur within the CVP place of use for the SCVWD. The critical habitat units in Santa Clara County provide connectivity between populations along the coast and inland, and represent the species distribution in the northern portion of the central coast. Land ownership is primarily private, but included within these units is 27,983 acres of state lands in Henry Coe State Park and 8,384 of local government land. According to information provided in Attachment 6 of the information accompanying Reclamation's request for consultation, land use within the SCVWD showed an increase of 1,358 acres of urban lands (changed from irrigated agriculture, grassland, and woodland); and an increase of 38 acres of grassland (changed from irrigated agriculture and shrubland) between 1993 and 2000

Effects of the Proposed Action and Cumulative Effects for Species and Critical Habitat Not Addressed in Previous Biological Opinions

This biological opinion analyzes the reasonably foreseeable effects of implementation of the 15 interim water contracts over a period of two years, from the year 2006 through 2008. Refer to the Introduction for a discussion of the relationship of this consultation to related Reclamation actions that also require consultation.

Key Assumptions

Because of the complex history as well as the complex present environmental and regulatory context of Interim Water Contract renewals, and because this action is related to a number of other Reclamation actions, the Service has had to make a number of assumptions about likely future events and context of the interim renewal action. While not exhaustive, the following list of key assumptions has been central to our effects analysis and findings of no jeopardy. As such, the failing of any key assumption should be considered reason for reinitiating consultation on the 2006-2008 Interim Water Contract renewals. The Service assumes the following:

1) In response to several proposed highway projects proposed by the Santa Clara Valley Transportation Authority and the potential need for the Service to consult on the long-term renewal of Santa Clara Valley WD's Federal Central Valley Project Water Contracts, the Service has requested that a Habitat Conservation Plan (HCP), meeting federal standards, be prepared to address potential direct and indirect impacts to federally listed species and their habitat in Santa Clara County from anticipated development in the City and County. The County of Santa Clara, the City of San Jose, and the Santa Clara Valley WD have each submitted letters indicating their respective commitment to work cooperatively towards the development of a multi-species HCP. The Santa Clara Valley WD and the Service will carry

out the commitments stated in Tony Estremera, Chairperson, Board of Directors, Santa Clara Valley Water District letter dated June 27, 2001. Current commitments by SCVWD that are underway include:

a) The SCVWD, along with the County of Santa Clara, the City of San Jose, the Santa Clara Valley Transportation Authority, the California Department of Fish and Game, the United States Fish and Wildlife Service and the National Oceanic and Atmospheric Administration are negotiating a formal Planning Agreement for the development of the HCP/NCCP. This Planning Agreement is being negotiated for the purposes of but not limited to 1) defining the geographic scope of the planning area; 2) identifying preliminary conservation objectives for the planning area; 3) ensuring coordination among the local agencies and wildlife agencies; and 4) establishing an interim process during HCP/NCCP plan development that encourages conditions conducive to achieving the preliminary conservation objectives.

b) Funding of approximately $1,000,000.00 assumed to be required to support preparation of the HCP/NCCP will be jointly funded between the agencies and projects which will benefit. SCVWD agrees to contribute a proportionate share of the cost, commensurate with the District's interests.

c) SCVWD agrees to develop an interim process in coordination with the USFWS to keep conservation and recovery options open for affected species, and to ensure SCVWD compliance with the ESA with regard to the issuance of discretionary permits where federal jurisdiction applies during the period prior to a decision on the HCP/NCCP, and issuance of incidental take permits.

2) Reclamation will continue to implement in a timely manner relevant environmental commitments, conservation measures, and terms and conditions from other biological opinions as appropriate. These commitments include implementation of the CVPIA and Continued Operation and Maintenance of the CVP (November 21, 2000, Service File No., 1-1-98-F-0124), the Friant Long Term Contract Renewals (Service File No., 1-1-01-F-0027) and the Grassland Bypass Project (Service File No., 1-1-01-F-0153). Other CVP-related, non-CVPIA (Central Valley Project Improvement Act) actions benefiting fish, wildlife, and associated habitats and related to effects of Interim Contract Renewals will continue, with at least current funding levels, including:

a) the Central Valley Habitat Monitoring Program's Comprehensive Mapping,

b) implementation of the Central Valley Habitat Monitoring Program's Land Use Monitoring and Reporting;

c) CVP Conservation Program and CVPIA B(1)(other) Habitat Restoration Program.

3) Reclamation will implement the Proposed Action in a manner consistent with implementation of any listed species recovery plans, including the Final Recovery Plan for California red-legged frog (USFWS 2002), Draft Recovery Plan for the Giant Garter Snake (USFWS 1999), Final Recovery Plan for Gabbro Soil Plants of the Central Sierra Nevada foothills (USFWS 2002), Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area (USFWS, September 1998a), Recovery Plan for Upland Species in the San Joaquin Valley (USFWS, September 1998b), Draft Recovery Plan for the Least Bell's Vireo (USFWS, 1998), Recovery Plan for the Large-flowered Fiddleneck (USFWS,1997), Recovery Plan for the Sacramento/San Joaquin Delta Native Fishes (USFWS,1995), and Recovery Plan for Valley Elderberry Longhorn Beetle (USFWS, 1984)

4) We assume the proposed action will be implemented as described in the Description of the Proposed Action section, above, and any documentation referenced in that section, such as appendices or attached documents.

5) We assume Reclamation will consult on actions interrelated with this consultation, including but not limited to operations and maintenance, exchanges, assignments, transfers, conveyance, and management of flood waters (215 water, *etc.*), and other actions described in the Introduction as being under simultaneous consultation with this action, including requesting concurrence for any determination that an action is not likely to adversely affect listed species or critical habitat. Reclamation has completed consultation on operations and maintenance of Reclamation water conveyance facilities as described in the Environmental Baseline.

6) The analysis for this opinion is based on the assumption that CVP water contract amounts and deliveries will remain consistent with those provided and analyzed in the Final PEIS for CVPIA and the 2005 OCAP biological opinion. We assume Reclamation will initiate consultation under section 7 of the ESA on any infrastructure modifications or other actions which result in modification of the current delivery regime.

7) Reclamation commits to the continued implementation of the conservation actions that were included in the programmatic consultation on the implementation of the CVPIA and Continued Operation and Maintenance of the CVP (1-1-98-F-0124, November 21, 2000).

8) Preliminary information provided by Reclamation indicates that for contract agricultural service areas there may have been little conversion of native lands during the period from 1993 to 2000. Information on trends in land use changes is provided in Reclamation's June 29, 2005 report entitled *Land Use Change in the Friant and Delta Divisions, Central Valley Project, 1993 2000.*

9) Reclamation is not consulting on any "on-farm" actions such as cropping practices, fallowing, and enrollment in conservation programs.

10) Reclamation and the Service assume end users of water (those that are actually responsible for on-the ground activities) will comply with Federal laws such as the ESA. Reclamation has, and will continue to, inform contractors of ESA requirements.

11) The proposed action does not include any non-Federal actions on non-Federal land relative to the end use of water. "Take" coverage for these private actions is not being requested by the contractors or Reclamation.

12) Any water delivered pursuant to the proposed interim contracts will comport with all biological opinions addressing CVP operations (i.e., the existing and any new biological opinions addressing CVP/SWP Operational Criteria and Plan (OCAP)

Direct Effects and Effects of Interrelated and Interdependent Actions

The Service anticipates no direct effects to listed species or designated critical habitat associated with the proposed execution of up to 18 interim contracts listed in Table 2 for up to two years between March 1, 2006 through February 29, 2008. Operation and maintenance of CVP water conveyance facilities, which can be considered interdependent actions, have received no jeopardy biological opinions (see **Environmental Baseline**).

Indirect Effects

Indirect effects of the proposed action include the effects of agricultural, municipal, and industrial activities that utilize the contract water. Continued delivery of water under these contracts is vital to sustain the agricultural, residential, commercial, and industrial activities that occur within contract service areas. Although many of these activities use CVP water in combination with other supplies, including groundwater, private water rights, and water from the State Water Project, these activities would not be sustainable at the same scale, extent, intensity, and duration absent federal water supplies. On the other hand, the land use activities that are sustained by or that will utilize contract water are not controlled by Reclamation, nor are they controlled by the water contractors. Water districts are retailers of CVP water, whereas land use is controlled by end-users such as individual farmers in the case of agricultural use, or by local or state government in the case of residential, commercial, and industrial activities. Since these land uses are not controlled by the consulting Federal agency or the Federal agency applicant, no incidental take will be authorized in this biological opinion for actions related to agricultural, residential, commercial, and industrial land uses that ultimately utilize contract water. To the extent that these activities have effects that result in take, such activities must obtain authorization for such take through either section 7 or section 10 of the Endangered Species Act.

Effects Overview

The following represents a general overview of the types of effects that we anticipate will arise from the proposed two-year interim contract renewal and which are applicable to the species and critical habitat in Table 1. We anticipate that effects will be similar in scope and significance as

those analyzed in our recent evaluations of the previous contract renewals (Service file nos. 1-1-00-F-0056 and 1-1-02-F-0070), and in the programmatic biological opinion on implementation of the Central Valley Project Improvement Act (Service file no. 1-1-98-F-0124).

Reclamation provided information generated by the Central Valley Habitat Monitoring Program for interim renewal contractors in Attachment 6 of the Supplemental Information on Interim Renewal Contracts. This information summarizes land use changes in water districts between the years 1993 and 2000. Information from these reports is used in the following analysis.

Conservation measures

Essential to the findings below are Reclamation's past and continuing conservation efforts to recover listed species through the Central Valley Improvement Act (b)(1)(other) and Central Valley Project Conservation Program. These programs have provided funding for habitat acquisition and management, surveys, and research that have contributed to the recovery of numerous listed species that have been adversely affected by the Central Valley Project. Accomplishments and work plans for these programs over the past two years are summarized in Attachment 5 of the information provided with Reclamation's request for consultation on these actions.

The measures described in the project description or commitments are intended to reduce, ameliorate, or reverse effects of water diversions and deliveries on listed and proposed species within the action area. Some, but not all, measures have been fully implemented. The conservation measures help offset the effects of habitat conversion and fragmentation by identifying, protecting, and restoring habitat that has been identified as important for recovery, and providing funding for other high priority recovery actions. Actions funded by these programs contribute to stabilizing or improving the overall status of listed species that have been affected by past operation of the Central Valley Project. Were it not for the continuing commitment of Reclamation and the applicants to implement the conservation measures and terms and conditions of past biological opinions on interim contract renewals, there would be little to counterbalance ongoing adverse effects of land use changes related to Federal water deliveries that eliminate or degrade habitat of listed species. Reclamation will continue to work with our office to implement the conservation measures over the two-year period of the interim contract renewals.

Existing agricultural uses

Reclamation has stated that the proposed contracts would provide unchanged amounts of water to the contractors. We anticipate that continued application of Federal water to existing uses over the next two years, without alteration of use, will result in effects to listed species similar to those ongoing effects described in the **Environmental Baseline** section, above. However, some conversion between different agricultural uses receiving unchanged deliveries of contract water could result in impacts, or benefits, to listed species. For example, some row crops have low habitat value for kit fox, while orchards can have higher values. Conversion of orchards to row

crops may adversely affect kit foxes without triggering Reclamation or District review. Information provided by Reclamation indicates that uses on lands already converted to agriculture as of this date within the districts will remain on average the same over the two-year period analyzed in this biological opinion and that there will be no significant adverse changes in the status of listed species that occur within agricultural water districts as a result of the proposed interim renewal of 18 water service contracts.

Habitat conversion and fragmentation

A substantial threat to listed species populations remaining in interim contract areas is continued conversion of useful habitats to non-habitat or less useful habitats. Habitat conversions may in many cases occur as a result of, or be related to, federal water deliveries, since water supplies are limited and water is needed for agricultural and municipal and industrial developments in the semi-arid southern Central Valley. Attachment 6 of the information accompanying Reclamation's request for consultation provides information on the status and findings of the Central Valley Habitat Monitoring Program. Based on this preliminary information on trends between 1993 and 2000, it appears conversion of native habitat within contract Service areas may be small in the majority of interim contract service areas. Two areas of special concern are the Santa Clara Water District and County of Fresno, which are addressed separately below because part of their service area includes rapidly developing urban areas. Based on the low amount of within water district habitat conversion over the seven-year period of 1993 to 2000, we anticipate no significant change in that trend during the two-year period of the proposed interim contract renewals, *i.e.* ongoing effects to listed species described below will continue, but because of the brief nature of the Federal action, we can make a finding that these trends will not appreciably reduce the likelihood of both the survival and recovery of listed species.

As noted above, most habitat conversions are outside the control of Reclamation or the contractors. Conversions inside the contract service areas that use groundwater and are not directly supplied with Federal water could continue unabated.

Habitat conversions also can fragment remaining habitat and break habitat connectivity needed to allow a species to disperse throughout its range. Dispersal promotes gene flow and among different portions of a species range, and is important to maintain stable populations within available habitat through the species' range as populations fluctuate over time. Loss of connecting habitat that reduces gene flow and population interchange may reduce the likelihood of survival and recovery of listed species by isolating populations within small habitat patches that are at increased risk of extirpation from stochastic events, inbreeding depression, or other factors. We consider that habitat conversions that fragment and reduce the connectivity between remaining pieces of habitat are likely to have such effects on all listed species addressed in this consultation. Habitat fragmentation that results from land use changes remains a major threat for the listed species addressed herein within the action and throughout their ranges. As noted elsewhere in this discussion, the brief nature of the federal action is a significant factor in the findings of this biological opinion.

Habitat conversion and fragmentation affect listed species by modifying or destroying habitat to an extent that results in death of wildlife or impairment of essential behaviors in many ways, including (a) through starvation, by destroying prey base and other food sources; (b) displacing animals and forcing movement to adjacent areas of non-habitat, increasing exposure to predators or other sources of mortality, such as roadways, dogs, and cats, or forcing animals into adjacent habitat in which they must compete with resident individuals; (c) eliminating breeding and rearing habitat (burrows, trees, and the like); (d) truncating hydrologic connections within seasonal wetland complexes that changes hydroperiods to regimes unsuitable for listed species that reproduce in seasonal wetlands, or by making hydroperiods suitable for predators of listed species such as bullfrogs; (e) increasing exposure to oil, pesticides, and other toxic substances associated with urban environments; (f) increasing exposure to stressors such as noise, light, human presence, off-road vehicles associated with urban environments. The significance of these effects on survival and recovery of species addressed in this consultation, both within the action area and throughout their respective ranges, underscores the importance of continued implementation and expansion of conservation programs throughout areas that receive Central Valley Project water.

Pesticide use

An interrelated effect of Federal water deliveries to contractors is the use of pesticides, including insecticides, acaricides, herbicides, fungicides, and other chemicals, on crops grown benefiting from Federal water. Effects of pesticide use on listed species are addressed in the 2002 biological opinion on interim contract renewal (Service file # 1-1-02-F-0070). We anticipate effects of the proposed contract renewal to be similar in frequency, intensity, duration, and significance, to those analyzed in the 2002 biological opinion.

Currently available information on the California tiger salamander (Davidson *et al.* 2001, 2002 as cited in FR 68:28648) indicates that researchers have been unable to find a significant overall relationship between upwind agriculture and decline of California tiger salamander. California tiger salamanders are otherwise adversely affected by habitat loss and fragmentation as described above. Based on information provided in Appendices D and E of the Draft EONSI (USDI-BOR 2003b), we do not anticipate that habitat loss and fragmentation within the 18 interim contract service areas will rise to a level that would preclude the survival and recovery of the species over the next two years. Longer term effects in these areas are potential for concern, however.

Fertilizers

Fertilizers can directly adversely affect amphibians such as the California tiger salamander. Runoff into ponds or direct application to ponds or upland areas where salamanders are active may result in mortality and sub-lethal effects (Schneeweiss and Schneeweiss 1997). Fertilizer input can lead to eutrophication of vernal pools, which can kill vernal pools species by reducing the concentration of dissolved oxygen (Rogers 1998).

Selenium related Effects

The effects of selenium drainage were analyzed in the 2002 biological opinion and are expected to remain the same through the two year term of interim contract renewal. Long term effects of selenium drainage will be analyzed during long term contract renewals and consultation on the San Luis Drainage Features Re-evaluation

Cross Valley Unit

Information provided in Attachment 6 of the information accompanying Reclamation's request for consultation (Central Valley Habitat Monitoring Program) indicates that land use has been stable in the water districts that contain vernal pool fairy shrimp units 24B (County of Fresno) and 27B (Pixley Irrigation District), and California tiger salamander units 2 (County of Fresno) and 3 (Hills Valley and Tri-Valley Irrigation Districts). We anticipate this trend to continue in the largely agricultural districts (Pixley, Hills Valley, Tri-Valley) for the interim contract period, as we have no information indicating large scale urban development is likely to occur in these districts over the next two years.

Effects on Critical Habitat

Within the County of Fresno, however, we are aware of projects approved by the County within designated critical habitat units 24B (vernal pool fairy shrimp) and 2 (California tiger salamander). These areas are likely to be similarly exposed to the growth related habitat effects described above. This means that one or more of the PCEs may be adversely affected or lost on a localized basis as a result of individual development projects within and adjacent to critical habitat and that conservation functions and values have the potential to be degraded over time by implementation of individual projects and the combined direct and indirect effects that such development may have on the PCEs. It is likely that most development projects that would affect one or more of the PCEs in these units also would require a Clean Water Act permit from the USACOE and would require additional review under section 7 of the Act for the potential to adversely modify these critical habitat areas. This will help ensure that direct effects of individual project implementation do not impair the conservation function and value of critical habitat, but it will remain very difficult to ensure that indirect effects of individual project implementation do not impair the conservation function and value of critical habitat. In addition, the commitment of Reclamation and Cross Valley contractors to implement the conservation measures of the 2001 biological opinion on long term renewal of the Friant Division and Cross Valley Unit contracts, particularly Item 22, will help ensure that interrelated or interdependent actions that could destroy essential habitat obtain ESA compliance prior to authorization of CVP water delivery to that area.

We conclude that these critical habitat units remain vulnerable to decreases in conservation function in the absence of a regional conservation strategy that can guide implementation of individual projects and manage both direct and indirect effects in a way that maintains and enhances the conservation function and value of the critical habitat. As discussed above, these

effects will not occur all at once, but over a 20 to 30 year or more planning horizon. Reclamation and the Service are working with developers and the County of Fresno to address effects to listed species and designated critical habitat of planned development that will utilize CVP water. We therefore conclude that critical habitats for the vernal pool fairy shrimp and California tiger salamander are likely to retain their conservation function over the interim period.

Santa Clara Water District

As stated in the Project Description, Santa Clara Valley WD can use up to 6,000 acre-feet of CVP water from the assignment during the two year period of the interim renewal contract. To date, Santa Clara Valley WD has diverted approximately 4,382 af of water, with all of that coming in the 2002 water year (Attachment 2, supplemental information accompanying the request for consultation).

Trend data provided by Reclamation in Attachment 6 of the supplemental information accompanying the request for consultation indicates that more than 500 acres of natural lands have been converted to urban uses in the period from 1993 to 2000 and that an additional 30 acres of grassland has been converted to irrigated agriculture. Information has not been provided as to whether these lands supported federally listed species. As discussed in the Project Description, Santa Clara Valley Water District, in conjunction with the City of San Jose and Santa Clara County, have committed to the development of a multi-species Habitat Conservation Plan. Although the plan will not be in place during the two year period of interim contract renewal, the land use agencies are working with resource agencies, including the Service, to develop interim strategies to address regional growth effects until the plan is complete and permits are issued. Compliance with the ESA for interim projects will be obtained, as appropriate, through incidental take exemption under section 7 or 10 of the ESA during the interim period.

The potential effects of the proposed water contract deliveries to Santa Clara Valley WD for the next two years are considered small based on the following considerations: the relatively small amount of the contract (6,000 acre-feet maximum over the two year period) compared with total annual water use within the County is about 400,000 af; the short term of the interim water contract authorization (two years); and the nature of the supply. This partial assignment is a dry year supply to compensate for shortages. It is assumed if the proposed water contract were not renewed the Santa Clara Valley WD would makeup the needed 6,000 af through any one or combination of the following alternative sources: groundwater, groundwater banking, conservation, or temporary transfers.

Effects on Critical Habitat

Based on our consultation history in Santa Clara County, we anticipate urban, industrial, and infrastructure projects to be proposed within the CVP place of use that may adversely affect one or more of the PCEs within designated or proposed critical habitat. Based our consultation

history, we anticipate that many of these projects will have a federal nexus through agencies such as the U.S. Army Corps of Engineers or Federal Highway Administration. Such actions would be held to the standard for adverse modification established in *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service* (No. 03-35279) (Gifford Pinchot). As discussed in the introduction to the effects analysis, Reclamation and SCVWD do not have land use authority and thus to not control the nature, scope, or location, or timing of development that may utilize a CVP water supply. Thus, we believe that many of the interdependent actions will undergo future section 7 review under the Gifford Pinchot standard for adverse modification.

As stated above, the potential effects of the proposed water contract deliveries to Santa Clara Valley WD for the next two years are considered small based on the following considerations: the relatively small amount of the contract (6,000 acre-feet maximum over the two year period) compared with total annual water use within the County is about 400,000 af.; the short term of the interim water contract authorization (two years); and the nature of the supply. This partial assignment is a dry year supply to compensate for shortages. It is assumed if the proposed water contract were not renewed the Santa Clara Valley WD would makeup the needed 6,000 af through any one or combination of the following alternative sources: groundwater, groundwater banking, conservation, or temporary transfers. This, combined with the fact that interdependent actions which would need to consider effects to critical habitat would have a federal nexus, and such actions would be held to the Gifford Pinchot standard for adverse modification, allow is to conclude that it unlikely that the conservation function of proposed or designated critical habitat within SCVWD would be lost or compromised with implementation of the proposed federal action.

Westlands Water District

Much of the effects discussion in the 2000 Interim biological opinion is generally applicable to Westlands WD. Westlands WD includes habitat types with value to listed species, including lands that have not been irrigated. San Joaquin kit fox, kangaroo rats, blunt-nosed leopard lizards, and other listed species are likely to use the area. These species are most likely to exist on "expansion lands", which are mostly naturally-vegetated lands outside the "consolidated place of use" (pursuant to State Water Resources Control Board D-1641) which have not yet been converted. Reclamation will not deliver CVP water to these lands until they have been included in the authorized place of use through application to the State Water Resources Control Board. Westlands also includes "encroachment lands", which are formally naturally-vegetated lands that were converted to agricultural and municipal uses with CVP water while outside the CVP authorized place of use. These lands are now included in the consolidated place of use in accordance with State Water Resources Control Board D-1641. Most of Westlands is converted, irrigated farmland. Reclamation has taken steps to assure that the Interim contracts do not result in conversion of listed species habitat, and according to Westlands WD the water would be used on existing irrigated croplands. We therefore expect that the impact of the proposed federal action to the conservation status of listed species would not be appreciable for the two year interim period. There is no proposed or designated critical habitat within Westlands WD.

Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. The discussion of cumulative effects in the 2000 and 2002 biological opinions on interim contracts is incorporated by reference.

Most of the indirect effects of the proposed action are also cumulative effects, because they are carried out by State, local, or private entities, not the action agency or the applicants. We anticipate the cumulative effects to listed species to be very similar to those described above for indirect effects and effects of interdependent actions. We do not anticipate significant cumulative effects in the primarily agricultural water districts over the next two years because so little habitat remains. While we expect that continued habitat loss and fragmentation throughout the action area will continue to adversely affect the listed species addressed in this opinion, recent trends of habitat conversion within the primarily agricultural water districts do not indicate that these effects will rise to a level of significance that would preclude the survival or recovery of these species during the next two years. To the extent that these actions have effects that result in incidental take of listed species, the sponsors, applicants, or proponents of such actions must obtain exemption for such take through either section 7 or section 10 of the Endangered Species Act.

In the water districts where CVP water will comprise a portion of the municipal water supply for rapidly expanding urban areas such as San Jose in Santa Clara Water District and the County of Fresno, the likelihood of significant cumulative effects during the next two years is greater than in the primarily agricultural water districts. We believe that early efforts toward a regional conservation planning process being undertaken by Santa Clara Water District, Santa Clara County, and local jurisdictions, in partnership with our office, will prevent cumulative effects from rising to a level of significance that would preclude the survival or recovery of these species during the next two years. Within the City of Tracy, the effects of growth over the next two years and beyond, including those actions that are not related to CVP water deliveries, are covered by their section 10(a)(1)(B) permit issued for the San Joaquin Multi-Species Conservation Plan.

Cumulative Effects on Critical Habitat

We have little specific information about reasonably foreseeable non-federal actions that are likely to occur within the Cross Valley Unit that may affect one or more of the PCEs proposed or designated critical habitat with the exception of proposed development in the County of Fresno in the vicinity of Millerton Lake. Based on information in our section 7 logs, we anticipate such actions are also likely to occur within the SCVWD. None of these actions would, by definition as cumulative effects, have a section 7 nexus and thus would not be held to the Gifford Pinchot

standard for adverse modification. Such actions have at least the potential to modify or destroy one or more of the PCEs and significantly reduce the conservation function of critical habitat in which they occur without review under section 7 of the ESA. Perhaps more realistically, actions that would negatively affect one or more of the PCEs to that extent also would be likely to result in take of a listed species in violation of ESA section 9 by disrupting essential behaviors such as breeding, feeding, or sheltering that are supported by the PCEs. Such actions would require a permit in accordance with section 10(a) (1) (B) of the ESA. The Service's issuance of any section 10(a) (1) (B) permit would us to apply the Gifford Pinchot standard of adverse modification.

Conclusion

After reviewing the current status of the species in Table 1, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the interim renewal of 13 water service contracts, as proposed, is not likely to jeopardize the continued existence of the species listed in Table 1, and is not likely to destroy or adversely modify critical habitat of listed vernal pool species or the central population of the California tiger salamander, or proposed critical habitat for the California red-legged frog.

These conclusions are based on: (1) the assumption that the action is implemented as described in this biological opinion, particularly in regard to the conservation measures described in the Project Description, and (2) the short duration of the proposed Federal action.

Incidental Take Statement

Section 9 of the ESA and Federal regulation pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by impairing behavioral patterns including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with this Incidental Take Statement.

Sections 7(b)(4) and 7(o)(2) of the ESA, which refer to terms and conditions and exemptions on taking listed fish and wildlife species, do not apply to listed plant species. However, section

9(a)(2) of the ESA prohibits removal, reduction to possession, and malicious damage or destruction of listed plant species from areas under Federal jurisdiction, as well as any act that would remove, cut, dig up, or damage or destroy any such species on any area in knowing violation of any State law or regulation, including the California Endangered Species Act, or in the course of any violation of a State criminal trespass law. Actions funded, authorized or implemented by a Federal agency that could incidentally result in the damage or destruction of such species on Federal lands are not a violation of the Act, provided the Service determines in a biological opinion that the actions are not likely to jeopardize the continued existence of the species.

The species in Table 1 are likely to be subject to some adverse effects through habitat loss and fragmentation associated with land use changes supported in whole or in part by water provided under the 13 interim water service contracts. As noted previously, neither the federal action agency nor the applicants exercise control over or implement those actions that result in take of listed species; either due to indirect effects, or from the effects of interdependent actions. For this reason, no incidental take is exempted by this biological opinion.

Conservation Recommendations

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. The term "conservation recommendations" has been defined as suggestions from the Service regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information. The recommendations provided here relate only to the proposed action and do not necessarily represent complete fulfillment of the agency's 7(a)(1) responsibilities for these species. In order for the Service to be kept informed of actions that either minimize or avoid adverse effects or that benefit listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

The Service recommends that Reclamation:

1. Continue to take affirmative actions to offset the impacts of past and present CVP implementation and its consequences on listed species. In particular, assist the Service and other organizations in permanently conserving lands important as habitat or movement corridors for listed species, and expand existing conservation and restoration programs for listed species and species trending towards listing.

2. Proactively encourage and fund retirement of seleniferous agricultural lands, including but not limited to those within or adjacent to the Grassland Drainage Area. This support could take the form of land purchases, incentives for withdrawing such lands from irrigation, disincentives for applying Federal water, reclassifying seleniferous lands, et

cetera, and should be pursued by Reclamation whether independently or in cooperation with other appropriate Federal, State, and local agencies.

3. Reallocate Central Valley Project water from retired lands to meet listed species water supply needs.

4. Continue to assist the Service in the implementation of recovery actions in the Final Recovery Plan for California red legged frog (USFWS 2002), Draft Recovery Plan for the Giant Garter Snake (USFWS 1999), Final Recovery Plan for gabbro soil plants of the Central Sierra Nevada foothills (USFWS 2002), Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area (USFWS, September 1998a), Recovery Plan for Upland Species in the San Joaquin Valley (USFWS, September 1998b), Draft Recovery Plan for the least Bell's vireo (USFWS, 1998), Recovery Plan for the large-flowered fiddleneck (USFWS,1997), Recovery Plan for the Sacramento/San Joaquin Delta Native Fishes (USFWS,1995), and Recovery Plan for valley elderberry longhorn beetle (USFWS, 1984).

5. Assist the Service and other relevant parties in implementation of recommended actions to reduce the extent and severity of drainwater contamination identified in the San Joaquin Valley Drainage Program's Final Report: A Management Plan for Agricultural Subsurface Drainage and Related Problems on the Westside San Joaquin Valley.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

Reinitiation–Closing Statement

This concludes formal consultation on the 18 proposed 2004-2006 Interim water contracts. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

Please contact Jan Knight at (916) 414-6600 should you have questions regarding this biological opinion.

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

FEB 28 2006

In response refer to
151422SWR2006SA00066:BFO

Kathy Wood
Chief, Resources Management Division
U.S. Bureau of Reclamation
South-Central California Area Office
1243 N Street
Fresno, California 93721-1813

Dear Ms. Wood:

This is in response to your letter of January 23, 2006, requesting concurrence under section 7 of the Endangered Species Act (ESA) that the one-year renewal of 18 water service contracts will have no effects on listed salmonids that have not already been addressed in NOAA's National Marine Fisheries Service (NMFS) 2004 biological opinion on Central Valley Project (CVP) and State Water Project Operations, Criteria and Plan (OCAP).

The Bureau of Reclamation (BOR) proposes to renew 18 interim CVP water service contracts (Table 1) for a total of 197,498 acre-feet of water consistent with previous informal ESA consultations where NMFS concurred with BOR's determination, February 2001 (SWR-01-SA-0023:MEA), February 2002 (SWR-01-SA-5851:MEA), February 2004 (SWR-00-SA-5945:BFO). In addition, a supplemental biological opinion (SWR-03-SA-5667:BFO) was issued on February 27, 2004, to address the impacts of 59 interim CVP water service contracts which expire on February 28, 2006. The 18 contracts proposed for renewal were part of the 59 interim contracts included in the 2004 supplemental biological opinion. Since that time, BOR has negotiated new long-term water service contracts with most of the CVP contractors and their impacts have been addressed in the NMFS 2004 long-term biological opinion (SWR-04-9116:BFO) issued on October 22, 2004. The proposed 18 interim contracts are meant to provide a bridge between the expiration date of existing water service contracts and the execution of new long-term water service contracts.

ESA Section 7 Consultation

NMFS has reviewed the list of 18 interim water service contracts provided with your January 23, 2006, letter. The letter was discussed by telephone with the South-Central Area Office on February 16, 2006. Subsequently, additional information on the contracts was provided by Frank Michny, BOR Sacramento Planning Office, in several emails and a fax dated February 23, 2006.

The amount of water being proposed for the 18 interim contracts has been considered in previous OCAP biological opinions; therefore it does not represent any new or additional water. NMFS annually reviews the BOR's first operational forecast based on a conservative 90 percent probability of exceedance in order to determine consistency with the OCAP biological opinion. This year's forecast shows a favorable water supply (*i.e.*, 65 percent allocation to CVP water service contracts south of the Delta), and indicates water temperatures can be maintained in CVP controlled rivers consistent with the OCAP. Therefore, based on the latest operations forecast (i.e., February 15 letter from Ronald Milligan, BOR to Rodney McInnis, NMFS), current hydrology, and short duration of the interim contracts (i.e., one year) we concur that the proposed action is not likely to adversely affect Federally listed endangered Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*), threatened Central Valley spring-run Chinook salmon (*O. tshawytscha*), and threatened Central Valley steelhead (*O. mykiss*), or their designated critical habitat. We anticipate that the proposed action will result in no additional take above that which has been previously considered in the 2004 OCAP biological opinion.

In determining whether to concur with BOR's finding that the listed salmonids would not be adversely affected by the proposed action, NMFS evaluated the baseline, which includes the effects of all federal actions consulted upon, including the current CVP OCAP, and considered direct and indirect effects of the proposed action, and cumulative effects. Direct effects of the proposed action are expected to be nonexistent: the volumes of water proposed to be delivered under the renewed interim contracts is within the operational parameters already consulted upon in the current OCAP for Water Year 2006, and the physical diversion of that water will take place behind dams or at screened diversions. Indirect effects (effects caused by the proposed action which will occur later in time) are expected to be discountable due to a favorable water year in 2006 and the short duration of the proposed action. Any effects of the proposed action would be cumulative in nature and indistinguishable from the effects of future state and private actions which are certain to occur even in the absence of BOR's interim renewal of water service contracts (*i.e.*, growth-inducing effects; land use practices, and agricultural return water inputs). Based on this review and the best available scientific and commercial data, NMFS expects that any adverse impacts associated with interim contract renewals will be avoided and concurs in BOR's determination that the proposed action is not likely to adversely affect listed salmonids or their critical habitat.

This concludes informal consultation for the proposed action. No further action pursuant to the ESA is necessary by BOR; however, re-initiation of the consultation process may be required if one of the following criteria is met: (1) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered in this review, (2) the action is subsequently modified in a manner that causes adverse effects to listed species not previously considered, or (3) a new species is listed or critical habitat designated that may be affected by this action.

Essential Fish Habitat

In addition, we find NMFS' 2004 OCAP Essential Fish Habitat (EFH) consultation addressed effects to Pacific salmon as described in Amendment 14 of the Pacific Salmon Fishery

Management Plan pursuant to the Magnuson-Stevens Act (MSA). We find no additional effects of this project to EFH that were not previously analyzed in the OCAP consultation. Therefore, additional EFH conservation recommendations will not be provided. Written response as required under section 305(b)(4)(B) of the MSA and Federal regulations (50 CFR §600.920) will not be required. Should additional information reveal that the project may affect EFH and/or impact salmonids in a way not previously considered, or should the action be modified in a way that may cause additional effects to EFH, this determination may be reconsidered.

Please contact Mr. Bruce Oppenheim at (916) 930-3603, or via email at bruce.oppenheim@noaa.gov if you have any questions regarding this letter or require additional information.

Sincerely,

for Rodney R. Mclnnis
Regional Administrator

Enclosure (Table 1. List of water service contracts)

cc: Frank Michny, BOR, 2800 Cottage Way, Sacramento, CA 95825-1898 (w/o enclosure)

FEB 28 2006

Section 7 Informal Consultation Clearance Sheet

Project Tracking #:151422-SWR 2006-SA-00266

Project Name: Interim Water service contracts - CVP

Action Agency: USBOR

Lead Biologist: OPPENHEIM

Initiation Date: 1/31/06 **Response Due Date:** 3/2/06

Clearances

Team Leader/First-line Supervisor ____________

Return for Revisions Date: ________ **Sign-Off Date:** __________

____ I have reviewed this document and find that it is consistent with applicable requirements of statute, regulation, policy, and guidance.

Office Supervisor MA

Return for Revisions Date: ________ **Sign-Off Date:** 2/27/06

✓ I have reviewed the attached document and find that we have complied with the requirements of required QA/QC procedures and the document is ready for review by General Counsel (if required) and signature.

____ Meets GC general waiver of certain consultation documents (**No further clearance from GC required**)

Regional General Counsel (signature req'd for individual waivers) ____________

Staff Attorney (sign) [signature]

Return for Revisions Date: ________ **Sign-Off Date:** 27FEB06

____ This document meets the 5 criteria set out in the final delegation of section 7 authority memo and GCSW **hereby waives legal review**

✓ GCSW has reviewed this document and found it to be **legally sufficient** as defined in the final delegation of section 7 authority memo. ✓ once revisions are made.

FAX SIGNED COPY TO: BRUCE OPPENHEIM, MIKE ACEITUNO, NANCY FOSTER

Comments: EMAILED SUBSTITUTE 4? to BRUCE, EMAIL ATTACHED

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Sean Walsh
Director

February 15, 2006

2/17 ✓

Robert Eckart
U.S. Department of the Interior
2800 Cottage Way, MP-150
Sacramento, CA 95825-1898

Subject: Draft Supplemental EA and Draft FONSI for the 2006 Renewal of Interim Water Service Contracts through February 29, 2008, Central Valley Project
SCH#: 2006014002

Dear Robert Eckart:

The State Clearinghouse submitted the above named Environmental Assessment to selected state agencies for review. The review period closed on February 14, 2006, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

ENV 6.00
CWP
70118-0
2-17-06

Document Details Report
State Clearinghouse Data Base

SCH# 2006014002
Project Title Draft Supplemental EA and Draft FONSI for the 2006 Renewal of Interim Water Service Contracts through February 29, 2008, Central Valley Project
Lead Agency U.S. Department of the Interior

Type EA Environmental Assessment

Description Renewal of 18 interim CVP water-service contracts between the United States and 16 CVP contractors. CVP contractors included in these draft documents are: El Dorado Irrigation District, San Juan Water District, Broadview Water District, City of Tracy, Westlands Water District Distribution District No. 1, Westlands Water District Distribution District No. 2, Pajaro Valley Water Management Agency, Santa Clara Valley Water District, County of Fresno, Hills Valley Irrigation District, Kern-Tulare Water District, Lower Tule River Irrigation District, Pixley Irrigation District, Rag Gulch Water District, Tri-Valley Water District, and the County of Tulare. The proposed action would continue the existing interim contracts for up to two years, with only minor, administrative changes to the contract provisions.

Lead Agency Contact

Name Robert Eckart
Agency U.S. Department of the Interior
Phone (916) 978-5051 **Fax**
email
Address 2800 Cottage Way, MP-150
City Sacramento **State** CA **Zip** 95825-1898

Project Location

County
City
Region
Cross Streets
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports
Railways
Waterways Sacramento River, American River, Delta, San Joaquin River
Schools
Land Use

Project Issues Biological Resources; Water Supply

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Native American Heritage Commission; Reclamation Board; Department of Health Services; Department of Fish and Game, Region 2; Department of Water Resources; Delta Protection Commission; Caltrans, Division of Transportation Planning; State Water Resources Control Board, Division of Water Rights; State Water Resources Control Board, Division of Water Quality; State Lands Commission

Date Received 01/13/2006 **Start of Review** 01/13/2006 **End of Review** 02/14/2006

Note: Blanks in data fields result from insufficient information provided by lead agency.