

## **APPENDIX H**

# **U.S. FISH AND WILDLIFE SERVICE BIOLOGICAL OPINION ON 2004 RENEWAL OF INTERIM WATER SERVICE CONTRACTS**

Classification	
Project	CVP
Control No.	4003026
Folder I.D.	57183

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 opinion of February 27, 2002, Service File # 1-1-02-F-0070) in accordance with section 7 of the Endangered Species Act of 1973, as amended (ESA). This second amendment to the February 29, 2000 biological opinion addresses the effects of the proposed renewal of the 42 contracts addressed in the biological opinions of 2000 and 2002 and 17 new interim contracts (Table 2 and Appendix A) 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 Interim contract renewal consultation, all conservation measures and non-discretionary terms and conditions described in the biological opinion on long-term contract renewal of Friant Division and Cross Valley Canal Unit Contracts (Friant-Cross Valley Opinion, Service File No. 1-1-01-F-0027) apply to the interim renewal of the Cross Valley Canal Unit contracts for the period of March 1, 2004 through February 28, 2006, or until long-term contracts for the Cross Valley Canal 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 following actions related to the proposed action are not covered by this opinion and may require separate section 7 authorization. We assume that for these actions, and for other actions for which Reclamation has discretionary authority, will comply with the provisions of the CVPIA programmatic biological opinion, page 2-70, (Service file no. 1-1-98-F-0148), which includes a commitment that Reclamation "will provide necessary information to the Service's Endangered Species Division in situations where a determination of *no affect* [*sic*] has been made, sufficiently in advance, to enable the Service's review:

- Mercy Springs partial assignment delivery to Pajaro Valley Water Management Agency;
- Transfers, assignments, and exchanges, including flood flows (215 water);
- Warren Act contracts for conveyance of non-federal water using federal facilities;

- The Mendota Pool Pumpers Exchange Agreement and other non-Central Valley Project waters that are pumped into the Mendota Pool;
- Inclusions and exclusions to contract service area boundaries;
- Future changes in purpose of use from Ag only to Ag/M&I involving any Interim contractor, including Cross Valley Canal Unit and Mendota Pool contractors;
- Changes to the CVP M&I shortage policy;
- Supplementary firm supplies of CVP water;
- Any increases in deliveries above actual allocations identified by existing CVP operations criteria, including any updates, or above historical maximum contract quantities analyzed in the Interim biological opinion of 2000 (Service File No., 1-1-00-F-0056);
- Changes to the existing Operations Criteria and Plan (OCAP).
- Operations and maintenance of Reclamation facilities associated with diversion and conveyance of water delivered under these contracts.

At the time of this consultation, Reclamation is consulting formally and informally on a number of the actions listed above. These consultations will address many, but not all, of the interrelated effects of the proposed interim renewal of 59 water service contracts. The action area, indirect effects, interrelated actions, and effects for this consultation are defined relative to the other actions undergoing simultaneous consultation. The other CVP related actions on which Reclamation is consulting either formally, or informally in preparation for formal consultation, include:

- Reinitiation of consultation on coordinated operation of the State Water Project and the Central Valley Project, including increased flows in the Trinity River, South Delta Improvement Project (increased pumping at Banks Pumping Plant and effects on water operation, not facilities), an intertie between the California Aqueduct and the Delta-Mendota Canal, and a long-term Environmental Water Account (EWA), Freeport Regional Water Project (effects of that contract on water operations), and various operational changes that are identified in this project description.
- Long term renewal of the remaining [approximately] 116 [+ settlement contractors] Central Valley Project water service contracts in accordance with Central Valley Project Improvement Act section 3404(c). Except for the City of Fresno, consultation on long term contracts for Friant Division contractors was completed on January 19, 2001, Service file no. 1-1-01-F-0027. Two-year interim contracts were issued to the Cross Valley contracts and they are subject to this reinitiated two-year renewal.
- Operation and maintenance of Central Valley Project water conveyance facilities not part of the OCAP. This consultation will include the effects of selenium discharges associated with the operation of sumps and check drains in the Delta Mendota Canal Unit in accordance with prior agreement with Reclamation (Michny 2002).
- The Environmental Water Account through December 30, 2007.

- Freeport Regional Water Project (effects of facility construction and water service area effects for Sacramento County Water Agency and East Bay Municipal Water District contracts.
- South Delta Improvement Project footprint and construction effects

Delta smelt are adversely affected by water operations associated with CVP water delivery. Effects of water operation on the delta smelt associated with interim renewal of 59 water service contracts are addressed in the biological opinion on the Central Valley Project Operations Criteria and Plan (Service file # 1-1-94-F-0070). As noted above, Reclamation is informally consulting with the Service and NOAA Fisheries on this and related actions. As a result, delta smelt will not be further addressed in this biological opinion.

With regard to actions described above that require future consultation, there are some issues regarding new interim contracts for certain Mendota Pool contractors that need to be clarified. The Service has been informed that new contract renewals automatically use the "interim form of contract." The interim form of contract includes a mixed Ag/M&I purpose of use (N. Bicknese, USBR, pers. comm., February 26, 2003). The existing Mendota Pool long term contracts expired in late 2003. Reclamation executed initial interim contracts for two to two and one-half months to cover water deliveries between the contract expiration date in December and the renewal of the interim contracts on March 1, 2004. In changing those six contracts to interim contracts, the "interim form of contract" was used. Due to the short duration and small amount of water to be delivered under these contracts, the action was categorically excluded under NEPA and Reclamation determined the action would have no effect on listed species (K. Wood, USBR, pers. comm., February 26, 2003).

The same interim shortage provisions are currently applied to both Ag and M&I supplies 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). As a result, we do not anticipate the changes to affect water allocations identified by existing CVP operations criteria. We expect the effects of these contract changes, and any other contract changes that have occurred as expired contracts are converted to "interim form of contract", will be addressed in consultation on any future change in CVP shortage provisions. To the extent that the effects of any future changes to the shortage provisions occur in water service areas, these effects should be addressed in consultations on long term contract renewals. To the extent that any future changes to the shortage provisions affect Reclamation's ability to comply with existing Operations Criteria and Plan [OCAP], Reclamation would have to reinitiate consultation on OCAP.

## Biological Opinion

This biological opinion is based on information provided in your November 6, 2003 request for consultation, as amended (USDI-BOR 2003a); the December 30, 2003 draft Supplemental Environmental Assessment and Draft Finding of No Significant Impact prepared for CVP

Interim Renewal Contracts; the December 14, 2001 Interim Renewal Contract Consultation Supplemental Information; February 2001 biological assessment (USDI-BOR 2001a); and additional information provided by Reclamation during the consultation. A complete administrative record of this consultation is on file in the Service's Sacramento Fish and Wildlife Office.

This document represents the Service's biological opinion on the effects of the action on the following species and critical habitat. This document also represents the Service's conference opinion on the effects of the action on the proposed Central Distinct Population Segment of the California tiger salamander.

The Service has considered the information you provided about the other endangered, threatened, and proposed species on the list provided in your request for formal consultation. On the basis of that information, and the information described above pertaining to related Reclamation actions undergoing simultaneous consultation, the Service concurs that this project is not likely to adversely affect the following species and critical habitat:

California condor, *Gymnogyps californianus*, Endangered  
 California condor critical habitat  
 Delta smelt, *Hypomesus transpacificus*, Threatened  
 Showy Indian clover, *Trifolium amoenum*, Endangered  
 Valley elderberry longhorn beetle critical habitat

Therefore, for these species and critical habitat, unless new information indicates that the action will affect them in a way not considered, no further consultation under the Act is necessary. If new information comes to light that indicates the action may affect them, please contact us immediately.

**Table 1.** Species considered in this biological opinion, including common name, scientific name, Federal status and whether the species has critical habitat in California counties with CVP Interim Renewal Contractors. Note: Entries in bold indicate changes not considered in the 2002 interim contract renewal consultation.

Common Name	Scientific Name	Federal Status	Critical Habitat
Alameda whipsnake	<i>Masticophis lateralis euryxanthus</i>	<b>Threatened</b>	Vacated

Common Name	Scientific Name	Federal Status	Critical Habitat
Bald eagle	<i>Haliaeetus leucocephalus</i>	Threatened	
Bay checkerspot butterfly	<i>Euphydryas editha bayensis</i>	Threatened	Yes
Blunt-nosed leopard lizard	<i>Gambelia silus</i>	Endangered	
California clapper rail	<i>Rallus longirostris obsoletus</i>	Endangered	
California jewelflower	<i>Caulanthus californicus</i>	Endangered	
California red-legged frog	<i>Rana aurora draytonii</i>	Threatened	Vacated
California tiger salamander, Central DPS	<i>Ambystoma californiense</i>	<b>Proposed Threatened</b>	
Colusa grass	<i>Neostapfia colusana</i>	Threatened	Yes
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	Endangered	Yes
Coyote ceanothus	<i>Ceanothus ferrisiae</i>	Endangered	
Delta smelt	<i>Hypomesus transpacificus</i>	Threatened	Yes
El Dorado bedstraw	<i>Galium californicum ssp. sierrae</i>	Endangered	
Fleshy owl's-clover	<i>Castilleja campestris ssp. succulenta</i>	Threatened	Yes
Fresno kangaroo rat	<i>Dipodomys nitratoide exilis</i>	Endangered	Yes
Giant garter snake	<i>Thamnophis gigas</i>	Threatened	
Giant kangaroo rat	<i>Dipodomys ingens</i>	Endangered	
Greene's tuctoria	<i>Tuctoria greenei</i>	Endangered	Yes
Hairy Orcutt grass	<i>Orcuttia pilosa</i>	Endangered	Yes
Hartweg's golden sunburst	<i>Pseudobahia bahiifolia</i>	Endangered	
Hoover's spurge	<i>Chamaesyce hooveri</i>	Threatened	Yes
Hoover's woolly-star	<i>Eriastrum hooveri</i>	<b>Delisted</b>	
Keck's checker-mallow	<i>Sidalcea keckii</i>	Endangered	Yes
Kern mallow	<i>Eremalche kernensis</i>	Endangered	
Large-flowered fiddleneck	<i>Amsinckia grandiflora</i>	Endangered	Yes
Layne's butterweed	<i>Senecio layneae</i>	Threatened	
Least Bell's vireo	<i>Vireo bellii pusillus</i>	Endangered	
Longhorn fairy shrimp	<i>Branchinecta longiantenna</i>	Endangered	Yes
Metcalf Canyon jewelflower	<i>Streptanthus albidus ssp. albidus</i>	Endangered	
Mountain plover	<i>Charadrius montanus</i>	<b>Proposal Withdrawn</b>	
Northern spotted owl	<i>Strix occidentalis caurina</i>	Threatened	Yes
Palmate-bracted bird's-beak	<i>Cordylanthus palmatus</i>	Endangered	
Pine Hill ceanothus	<i>Ceanothus roderickii</i>	Endangered	
Pine Hill flannelbush	<i>Fremontodendron californicum ssp. decumbens</i>	Endangered	
Sacramento Orcutt grass	<i>Orcuttia viscida</i>	Endangered	
Salt marsh harvest mouse	<i>Reithrodontomys raviventris</i>	Endangered	
Sacramento splittail	<i>Pogonichthys macrolepidotus</i>	<b>Delisted</b>	
San Joaquin adobe sunburst	<i>Pseudobahia peirsonii</i>	Endangered	
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	Endangered	
San Joaquin Valley Orcutt grass	<i>Orcuttia inaequalis</i>	Threatened	Yes

Common Name	Scientific Name	Federal Status	Critical Habitat
San Joaquin wooly-threads	<i>Monolopia congdonii</i>	Endangered	
Santa Clara Valley dudleya	<i>Dudleya setchellii</i>	Endangered	
Slender Orcutt grass	<i>Orcuttia tenuis</i>	Threatened	Yes
Stebbins' morning-glory	<i>Calystegia stebbinsii</i>	Endangered	
Riparian brush rabbit	<i>Sylvilagus bachmani riparius</i>	Endangered	
Riparian woodrat	<i>Neotoma fuscipes riparia</i>	Endangered	
Tiburon paintbrush	<i>Castilleja affinis ssp. Neglecta</i>	Endangered	
Tipton kangaroo rat	<i>Dipodomys nitratoide nitratoide</i>	Endangered	
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	Threatened	Yes
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	Threatened	Yes
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	Endangered	Yes

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 2002

Changes in this list of species since 2002 include the proposal of the California tiger salamander Distinct Population Segment as a threatened species; final designation of critical habitat for 15 vernal pool species; vacature of critical habitat for the California red-legged frog and Alameda whipsnake; and removal of Hoover's woolly-star and Sacramento splittail from the list of threatened and endangered species. 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 2, 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.

## Project Description

The proposed action is to execute up to 59 interim water service contracts (listed in Appendix A) for up to two years between March 1, 2004 through February 28, 2006. These interim contracts fall within the following divisions or units of the CVP: American River Division (n= 4 contracts), Cross Valley Canal Unit (n=8 contracts), Colusa Basin Drain Unit (n=1 contract), Delta Mendota Canal Unit (n= 24 contracts) which includes 3 partial contract assignments, Sacramento River Division (n=14 contracts) which includes one partial contract assignment, Shasta Division (n= 3 contracts), Trinity Division (n= 3 contracts), Feather River Division (n=1 contract), and Friant Division (n= 1 contract).

Differences between the 2002 interim contracts and the 2004 interim contracts are 1) an additional 17 CVP contractors now require interim renewal contracts, and 2) the contract amount for the City of Shasta Lake (Shasta Division) will increase from 2,750 acre-feet/year to 4,400 acre-feet/year. The seventeen additional interim renewal contractors included in 2004 that were not included in 2002 are as follows:

**Table 2. Seventeen additional interim renewal contractors in 2004 that were not included in the 2002 interim contract renewal consultation.**

	<b>CVP Contractor name</b>	<b>Contract amount (af/year)</b>
	<b>AMERICAN RIVER DIVISION</b>	
	<b>Folsom Lake Unit:</b>	
1.	El Dorado Irrigation District	7,500
	<b>DELTA DIVISION</b>	
	<b>Delta-Mendota Canal Unit:</b>	
2.	Coelho Family Trust (Formerly Traction Ranch)	2,080
3.	Fresno Slough Water District	4,000
4.	James Irrigation District	35,300
5.	Westlands Water District Distribution District # 2 ( <i>assignment from Mercy Spring WD - is final</i> )	4,198
6.	Reclamation District 1606	228
7.	Tracy, City Of ( <i>partial assignment from Banta Carbona ID - is pending</i> )	5,000
8.	Tracy, City Of ( <i>partial assignment from the West Side ID - is pending</i> )	2,500
9.	Tranquillity Irrigation District	13,800
10.	Tranquillity Public Utility District (Formerly Hughes, Melvin)	70
11.	US Department of Veterans Affairs (San Joaquin National Cemetery)	450

**Table 2. Seventeen additional interim renewal contractors in 2004 that were not included in the 2002 interim contract renewal consultation.**

	<b>CVP Contractor name</b>	<b>Contract amount (af/year)</b>
	<b>FRIANT DIVISION</b>	
	<b>Friant-Kern Canal:</b>	
12.	Lewis Creek Water District ( <i>may not renew, but will include action in this impact analysis</i> )	1,450
	<b>SACRAMENTO RIVER DIVISION</b>	
13.	Westside Water District ( <i>assignment from County of Colusa –is final</i> )	40,000
	<b>SHASTA DIVISION</b>	
14.	Mountain Gate County Service District	350
15.	Shasta County Water Authority	5,000
	<b>TRINITY RIVER DIVISION</b>	
16.	Shasta County Service District	1,000
	<b>MISCELLANEOUS</b>	
	<b>Colusa Basin Drain:</b>	
17.	Colusa Drain MWC ( <i>New Contract - 1988</i> )	100,000

As shown in Table 2, four of the interim renewals in 2004 represent new partial assignments of existing contracts. The four assignments are: 1) Mercy Springs Water District to Westlands Water District Distribution District #2 (both in the Delta Division), 2) the partial assignments of Banta Carbona Irrigation District and West Side Irrigation District contracts to the City of Tracy (all in the Delta Division), and 3) the assignment of County of Colusa water to Westside Water District (both in the Tehama-Colusa Canal Unit, Sacramento River Division).

The proposed action also includes the execution of interim contract No. 14-06-200-949-IR8 with El Dorado Irrigation District. This contract would allow continued delivery of CVP water to the Sly Park Unit during a transition period pending final transfer of the Sly Park Unit title from the United States to the El Dorado Irrigation District.

Included in the 2002 interim renewal and in this 2004 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 (see Appendix A). 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). 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. Specifically the Related Agreement allocates water during the 2-year period of the proposed action as follows:

- Westland Water District Distribution District #1 can use up to 6,260 acre-feet/year in most years over the first 10 years of the assignment.
- Santa Clara Valley WD can use up to 6,260 acre-feet/year, but not more than a cumulative total of 10,000 af of water during the first 10 years of the assignment. To date, Santa Clara Valley WD has diverted approximately 4,000 af of water, so no more than approximately 6,000 af total can be used by Santa Clara Valley WD between March 1, 2004 and the end of February 2009.
- Both Westlands Water District Distribution District #1 and Santa Clara Valley WD entered into the Agreement as a means to obtain water that could be used to offset water shortages. Therefore, Westlands Water District Distribution District #1 and Santa Clara Valley WD will only schedule water available pursuant to the Partial Assignment in those years which CVP water allocations do not meet the respective district's need.

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. This is a separate action and is being analyzed in the Pajaro Basin Management Plan EIS, which is currently in circulation as a draft public document. Section 7 consultation for this plan has been initiated.

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, although it is likely that deliveries will approximate contract quantities provided in Appendix A. These 2004 interim renewal contract quantities remain the same as in the existing water service contracts, with one exception. The contract amount for the City of Shasta Lake will now change from 2,750 to 4,400 acre-feet/year. Although the City of Shasta Lake contract amount is increasing, the actual use of water will not change significantly over the next two years, and no adverse effect on listed species is expected because the City of Shasta Lake’s service area lacks either designated critical habitat or known occurrences of listed species, with the possible exception of valley elderberry longhorn beetle. However, elderberries, if present, would be expected to be in locally exceptional areas protected from development by wetland laws because streams in the City of Shasta Lake’s service area are intermittent and mostly bordered by gray pine/blue oak forests rather than willows, cottonwoods, and sycamore species that are indicative of wetlands.

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. Certain temporary water service actions including certain historic temporary transfers that have been covered by existing environmental documentation and consultation. 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.

Future changes in use from agricultural-irrigation only to Municipal and Industrial use (M&I) are also independent actions that are not included in the proposed interim renewal action. Pursuant to Article 3(b) of the Interim Renewal Contracts, actual changes of purpose of use pursuant to the general authorization would require specific environmental documentation.

Changes to the existing Operations and Criteria and Plan (OCAP) are undergoing a separate independent consultation and are not part of the proposed action.

### **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 jeopardy findings. As such, the failing of any key assumption should be considered reason for reinitiating consultation on the 2004-2006 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) Reclamation and the Service will coordinate, for ecosystem-level planning purposes relative to water deliveries to CVP contractors. Reclamation will provide information to the Service on annual deliveries each year, prior to or concurrent with informing the water districts on their allocation amounts. (However, it is understood that biological opinions for OCAP (1-1-94-F-70) and Los Vaqueros (1-1-95-F-117 and 1-1-95-F-134) are in place, and the total amount of these CVP deliveries cannot exceed the total consolidated amount considered in these opinions).

### Status of Conservation Measures from the 2000 and 2002 Interim Renewal Opinion

The November 21, 2000 opinion on CVPIA implementation (file 1-1-98-F-0124) serves as a programmatic document under which other subsequent CVP consultations are tiered. As described in the 1995, 2000, and 2002 Interim opinions (February 29, 2000, Service File No., 1-1-00-F-0056; February 28, 2002, Service File No., 1-1-02-F-0070), Reclamation has agreed to implement conservation measures. The following conservation measures, including the status and need of past conservation measures, are continued as part of the ongoing operation and maintenance of the CVP.

**Short-term conservation program.** Reclamation developed and implemented a short-term conservation program for the Interim renewal contract service-areas. The proposed action includes a commitment to develop and implement a long-term program to address the overall effects of the continued operation of the CVP on listed, proposed, and candidate species, and a short-term program to minimize the adverse effects on these species in any areas affected by CVP water deliveries, other than those to the Interim renewal contract service areas addressed here and those addressed in the Friant consultation.

The short-term program to minimize adverse effects of continued water delivery to the Interim contract water districts included the following measures:

- 1(a) Notify districts regarding Endangered Species Act requirements (Completed);*
- 1(b) Develop information on distribution and habitat of listed, proposed and candidate species (Ongoing);*
- 1(c) Map and distribute information developed in 1(b) above (Ongoing);*
- 1(d) Monitor land use changes and ongoing activities to ensure project water is not used in a manner that adversely affects listed, proposed or candidate species. Coordinate with the Service on any activities adversely affecting these sensitive species (Ongoing);*
- 2(a) Work with the Service, California Department of Pesticide Regulation and others to develop guidelines and information assessing the effects of pesticides on listed, proposed and candidate species. (Completed);*
- 2(b) Develop and distribute guidance on construction and maintenance activities (Completed);*
- 2(c) Review District water conservation plans. (Completed);*
- 2(d) Amend criteria for water conservation plans (Completed);*
- 3(a) Identify lands critical to listed and proposed species (Ongoing);*
- 3(b) Identify land and water use activities critically impacting listed and proposed species (Ongoing);*
- 3(c) Develop and implement critical need plan (Ongoing);*
- 4 Develop a long-term program to address overall effects of the Central Valley Project and Implementation of the Central Valley Improvement Act (Ongoing);*

***1a. Notify Districts regarding ESA requirements of the Interim opinion***

Status: Complete. Within the first year of the issuance of the Interim opinion of 1995, Reclamation completed the following: included language in Interim contracts requiring compliance with applicable biological opinions; sent a copy of the Interim opinion to all 65 Interim contractors; held workshops in Folsom, Kingsburg, Tracy, and Willows to explain the compliance requirements of the ESA. In the February 2000 Interim contract renewal biological opinion, the Service and Reclamation believed that additional communication was needed with Interim and Friant contractors identifying their obligation to comply with the ESA. As a result, the Interim Opinion of 2000 included the following commitment: *Reclamation and the Service will develop jointly a letter to be distributed within 2 months of this opinion to all Interim and Friant contractors and subcontractors describing their requirements to comply with the ESA.* This notice to the contractors was sent the week of July 3, 2000.

***1b. Synthesize existing and new information on distribution and potential habitat of federally listed, proposed, and candidate species within the Districts.***

Status: In progress. See 1c below. Reclamation and the Service established cooperative Geographic Information System team to work on the Central Valley Habitat Monitoring Workplan in 1999.

Needs: This task is currently ongoing (see 1c below).

***1c. Map (hard copy and digitized) habitat and potential distribution of listed, proposed and candidate species, and provide information to the Districts, the Service, and the California Department of Fish and Game.***

Status: Ongoing. Reclamation in coordination with the Service is mapping habitat from 1993 and 2000 acquired satellite imagery. Currently, Reclamation and the Service are working to develop a prioritized action plan to complete this mapping effort. In order to establish a CVP wide benchmark to measure change, a 1993 base layer was developed using available source layers from various State and Federal agencies. Satellite imagery and aerial photography along with ancillary data have been used to update the benchmark 1993 land cover database for habitat conditions in the calendar year 2000. Geographic Information Systems (GIS) were used to produce tabular data comparing land cover changes between 1993 and 2000.

The Central Valley Habitat Monitoring Program is currently preparing the year 2000 land cover data for release to the public in January 2004.

These data are currently being used to produce reports of habitat change within Federal water service contract. These reports compare the CVHM 2000 land cover data with the CVHM1993 land cover data which was released in the spring of 2002. Habitat change reports in water service contract boundaries have been completed within the following divisions: *American River; Delta Division; Friant Division; Sacramento River Division; Shasta Division; Trinity River Division* the CVP Contractor group and other miscellaneous groups.

Needs: Data on recent habitat extent, location, spatial arrangement, barriers, and trends are needed for consultations and recovery efforts. To this end, Reclamation will provide to the Service the best data available from the Central Valley Habitat Monitoring Program (CVHMP) to identify remaining natural habitats within the contract service areas prior to initiation of consultation on more long-term contract renewals, or on another interim contract renewal, whichever comes first. These data will be from the 1993 and 2000 CVHMP.

***1d. Monitor land use changes and ongoing activities in the Districts to ensure that project water is not used in a manner that adversely affects listed, proposed, and candidate species.***

Status: A review of the Central Valley Habitat Monitoring Program data between 1993 and 2000 indicates that most CVP interim renewal contract service areas had few, if any, conversions of natural habitats. Many of the service areas had no conversions of natural habitats between 1993 and 2000. Of the 2,390,234 acres of CVP interim renewal service areas there is a net conversion of 339 acres of natural land to a non-natural category. This is based on 2000 data identifying 6217 acres of natural land converted to a non-natural category and 5936 acres of non-natural land being converted to natural. Thus, a total of 0.04% of natural land was converted when comparing the total acreage of natural land in 1993 to 2000.

A summary of interim renewal contract service area habitat-changes for each Reclamation division was provided to the Service in the consultation materials, and is as follows:

American River Division – Existing natural landcover in 1993 reflects a 2.46% loss in 2000. This landcover loss equates to a 1.87% loss of natural landcover from the 167,216 (+/-) acres of landcover within the division. (This report will reflect a higher acreage due to overlap of the El Dorado I.D. and the El Dorado I.D. – Sly Park water service areas).

Delta Division – There is relatively little land change within the division. Of the 1,633,735 acres of landcover 0.02% of natural land was gained.

Sacramento River Division - There is some gain in natural landcover within the division. Of the 165,879(+/-) acres of landcover within the division, data reflects a 0.41% increase of natural land. Of existing natural landcover in 1993, this is a 3.31% gain.

Shasta Division – There is relatively little change within the division. Of the 12,554 (+/-) acres of landcover division wide, the data reflects a 0.09% loss of natural land. Of existing natural landcover in 1993, this is a 0.11% loss in the year 2000.

Trinity Division - There is relatively little change within the division. Of the 70,579 (+/-) acres of landcover division wide, the data reflects a 0.09% loss of natural land. Of existing natural landcover in 1993, this is a 0.10% loss in the year 2000.

Colusa Basin Drain Unit - There is relatively little change within the division. Of the 37,349 (+/-) acres of landcover division wide, the data reflects a 0.40% loss of natural land. Of existing natural landcover in 1993, this reflects 18.67% increase in the year 2000.

Cross Valley Canal Unit - There is some change within the division. Of the 284,637 (+/-) acres of landcover division wide, the data reflects a 0.61% loss of natural land. Of existing natural landcover in 1993, this reflects 8.07% increase.

Needs: See 1c. above

***2a, 2b. Work with the Service, California Department of Pesticide Regulation and others to develop guidelines and information assessing the effects of pesticides on listed, proposed and candidate species. Reclamation, working with the Service, will develop and distribute to the Districts and landowners guidance on construction and maintenance activities that are most beneficial to listed, proposed, and candidate species. Complete within 1 year of contract renewal.***

Status: Complete. The O&M Plan has been developed to specifically address potential impacts to federally listed species from routine O&M activities conducted by or for Reclamation in the CVP, and which have not been covered by previous consultations. Reclamation is committed to develop and implement a plan to minimize adverse effects to federally listed species, which could result from O&M of the CVP facilities. All Reclamation employees, entities contracted to operate and maintain Reclamation facilities, and all parties that hold leases to Reclamation lands (as agreed upon by Reclamation), follow procedures, and guidelines contained in the O&M Plan documents. Potential impacts of extraordinary activities or major construction projects are addressed by individual environmental reviews.

Reclamation prepared three CVP-wide documents in November 2000 that constitute an O&M Plan:

- Operation and Management Plan: an Overview;
- Operations and Management Plan: Field Manual;
- Operations and Maintenance Plan: Sensitive, Threatened, and Endangered Species.

Each of Reclamation's CVP Area Offices has completed draft regional O&M plans. Most manuals were provided to the Service in November 2002. These O&M Plans consists of three documents: 1) *O&M Guidelines for the Protection of Federally Listed Species of the [Area Office]* identify routine O&M activities, characterize potential threats to listed species from these activities, describe general avoidance measures when conducting O&M activities and provide specific avoidance and mitigation measures to follow to minimize impacts to specific listed species and their habitats. These were submitted to the Service in November 2002; 2) *The Integrated Pest Management Plan* (IPM Plans) contains site specific management plans that were developed to meet operational needs for controlling pests while minimizing the potential

impacts to federally listed species and their habitats. Individual plans were developed to meet the unique needs of each contractor. IPM plans were submitted to the Service in November 2002; 3) The *Field Operations Manual (Field Manual) For The Protection of Federally Listed Species* provides a photograph of each listed species, a map of its distribution, and a description of its basic biology. There is one Field Manual for each CVP county of the Area Office jurisdiction. Additionally, the primary habitats supporting listed species in the Area Office are described and photographic examples for each are provided.

The O&M Guidelines will be used by Reclamation field staff and entities contracted to operate and maintain Reclamation facilities. Managers and planners consult the Guidelines as a reference when planning or before conducting O&M activities. The IPM Plan and the Field Manual were designed to be consulted daily by field and resource staff. Individual topics (e.g. a species account) from the Field Manual can be printed as needed and carried into the field for reference.

Reclamation area offices agree to update their individual O&M Plans as needed. New information that could help to reduce impacts to listed species and the environment will be incorporated into the O&M Plan documents. It is anticipated that revisions will be made every five years, or more frequently as needed. New regulations (laws, policies, etc.) and/or improved methods to protect listed species will be reviewed and approved by all parties, and integrated into O&M activities as soon as possible.

Reclamation, in addition to activities on its own lands, assists water districts and private landowners receiving Reclamation water in avoiding effects to listed species by providing copies of the O&M Guidelines, environmental education, and training information. Staffs involved in O&M activities have training and continuing education to keep abreast of measures for minimizing impacts to listed species and their habitats. Training covers the identification, distribution, and habitats of endangered, threatened, and proposed endangered or threatened species. Training may be provided by Reclamation staff, contracted staff, and/or outside agency staff including, but not limited to the California Department of Fish and Game (CDFG), the US Fish and Wildlife Service (Service) and the California Department of Pesticide Regulation (DPR). The training or continuing education that O&M personnel receive to update their knowledge about listed species and the means to avoid take of them, is documented and provided to Reclamation each year. If no other sources of training are available, training may be provided by Reclamation at the request of water districts or authorities.

Needs: Implementation of this measure is progressing. The Service is reviewing and consulting on the O&M Plans submitted by each of the Reclamation's CVP area offices (Northern California Area Office, Central California Area Office, and South Central California Area Office).

Reclamation committed to completing and distributing O&M manuals to all CVP contractors prior to long term contract renewal initiation or on or before this Interim contract renewal period (e.g., before March 1, 2004), whichever came first. In September and October 2003 Reclamation distributed the appropriate Draft O&M manual to each CVP contractor for their review and use.

Pending completion of the section 7 consultation process ongoing between Reclamation and the Service, the contractors will begin full implementation of each O&M manual component (including the final Integrated Pest Management Plans).

***2c, 2d. Reclamation will review water conservation plans for the Districts prior to implementation to ensure they do not adversely affect listed, proposed or candidate species. Reclamation will amend the criteria for water conservation plans to ensure consistency with the ESA.***

Status: Completed for Reclamation Area Offices in July 2000. The criteria for water conservation plans are amended every 3 years, consistent with the CVPIA. The criteria were amended in 2002, so will not be amended again until 2005. Reclamation informally consults with the Service by forming an interagency team to ensure that the criteria are in compliance with the ESA. Reclamation sends memos to the Service and the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) requesting their review of criteria and participation on interagency teams.

Needs: Regarding implementation of water conservation plans in the future, Reclamation, through informal consultation with the Service, will determine if water conservation plans affect listed species prior to finalizing these plans.

***3a. Reclamation will identify lands that are critical to the continued survival of listed species and proposed species.***

Status: Ongoing. The CVP Conservation Program, along with other initiatives [e.g., (b)(1) "other" Program, acquisition of level 2 and level 4 Refuge Water Supplies, and the Wetland Development Program], are intended to ensure that the existing operation of the CVP and implementation of the CVPIA will not jeopardize listed or proposed species or adversely affect designated or proposed critical habitat. Reclamation and the Service developed the CVP Conservation Program as one of the means to offset the effects of the CVP on listed species. The Friant and Interim biological opinions specified that Reclamation and the Service would identify critical needs of the species. With time, it became clear the list of conservation actions to be done changed each year with new information. At the time of the Interim Water Contract Renewal consultation in 1995, Reclamation and the Service agreed to annually reexamine the list of actions to be done and identify which ones had the highest priority. This would ensure that important problems were not missed and that money would be used effectively to solve problems. The CVP Conservation Program Framework Document was written to confirm the strategy. All of the listed species in the area affected by the CVP were included because spending decisions would be done most cost-effectively during the prioritization process. Participation by both agencies would ensure that the interests of Reclamation and the Service would be considered in all decision-making.

Needs: Reclamation and the Service commit to continue updating and implementing critical needs for listed species survival for all listed species impacted by the CVP. Reclamation and the

Service will pursue adequate funding and partners to implement critical needs actions identified through this process. Reclamation is also making a continued commitment to involve other agencies (Federal, State, and local entities) in efforts to cooperatively address the needs of listed species. This will result in cost savings to all involved, will avoid duplication of effort, and will result in an improved cumulative benefit to species.

***3b. Reclamation, working with the Service, will implement a critical needs plan. Identify land and water use activities critically impacting listed and proposed species.***

Status: Ongoing. Critical needs plans were drafted for Friant and Interim biological opinions. The Recovery Plan for Upland Species of the San Joaquin Valley, California was partially funded by the CVPIA (b)(1) "other" Program and Reclamation to help identify recovery needs for listed species in the San Joaquin Valley. Critical needs planning associated with species on Friant Division lands has made significant progress. Reclamation's South-Central California Area Office continues to provide funding to collect data on critical needs species to meet obligations under the Friant biological opinion.

Needs: Reclamation, as deemed necessary by the Service, will expand their critical needs efforts to ensure the existing operation of the CVP (including Interim contractors) will not jeopardize listed and proposed species or adversely affect designated or proposed critical habitat. Critical needs will be updated, as new species are proposed and listed (for example, Central California Distinct Population Segment of the California tiger salamander. Refer to needs identified in 3a above.

***4. Reclamation, working with the Service, will develop a long-term program to the address overall effect of the CVP and implementation of the CVPIA.***

Status: Reclamation has been undertaking actions that have contributed to the survival of listed species throughout the Central Valley. Reclamation has also been implementing measures to prevent/minimize take of species through operations and maintenance actions. The Service, with assistance from Reclamation, completed a final biological opinion on the Implementation of the Central Valley Project Improvement Act and Continued Operation and Maintenance of the on November 21, 2000 (Service File No., 1-1-98-F-0124). Reclamation's annual budgets have included approximately \$2.5 million annually since 1998 for meeting listed species critical needs.

Needs: Reclamation and the Service will pursue adequate funding and partners to implement any requirements included in the final biological opinion for the Implementation of the CVPIA and Continued Operation and Maintenance of the CVP.

**Status of Additional Conservation Measures from the 2000 and 2002 Interim Opinion**

In addition to the conservation measure referenced above, the Interim opinion of 2000 and 2002 also included commitments related to future Reclamation actions, and these were updated and

modified concerning transfers in the 2002 opinion. The status and needs associated with implementation of these 2000 and 2002 BO commitments are presented below.

***1) Changes in purpose of use of contracts:*** Reclamation will consult on all future changes in purpose of use in water contracts from Agriculture only to Agriculture/M&I purposes.

Status: The Service is unaware of any changes of purpose of use executed since the 2000 Interim opinion. Reclamation will consult with the Service on any changes of use proposed during the long-term contract renewal process, including any changes in purpose of water use from agricultural-irrigation to M&I.

Needs: Reclamation will provide the Service with an analysis in either a stand-alone document, or in the long-term contract renewal consultation process of how future changes in water use may affect shortages to districts, and how any changes in allocations may affect CVP-wide water supplies, including water for fish and wildlife, under drought conditions. No changes in purpose of use will be executed without appropriate ESA and NEPA compliance, and unless it can be shown that such changes in use will not the reduce water supplies benefiting listed species authorized by the CVPIA below those predicted in the CVPIA PEIS.

***2) Future Assignments involving Interim contractors:*** For assignments of Interim water that may affect listed species, Reclamation will initiate informal consultation with the Service. For those contracts or actions with direct or indirect effects that are likely to adversely affect listed species, or result in take, Reclamation will consult formally with the Service. Reclamation, through informal consultation with the Service, will determine if an action will not affect listed species prior to signing of the FONSI or ROD.

Status: Two new contract assignments have been executed since the 2000 Interim Opinion. Westlands Water District Distribution District #2 received an assignment of 4,198 af/year from the Mercy Springs Water District (contract No.14-06-200-3365A-IR8-A), effective on 3/1/02. Both contractors are served through the Delta Division. The Westside Water District in the Tehama-Colusa Canal Unit received an assignment of 40,000 af/year from the County of Colusa, effective 3/27/02. Reclamation informally consulted with the Service on these two assignments. The Service has completed consultation and issued a no jeopardy biological opinion on two proposed assignments: Banta Carbona to City of Tracy, the West Side Irrigation District assignment to City of Tracy (Service file no. 1-1-03-F-0128). The Service is informally consulting on the assignment from Broadview Water District to PVWMA. All assigning contractors and the City of Tracy are within the Delta Division. PVWMA currently has no water service but expects to receive service for irrigation water from the San Felipe Division.

Needs: Reclamation will continue implementation of this measure.

***3) Future Inclusions (Annexations) and Exclusions (Detachments) to contract service area boundaries:*** For inclusions or annexations involving the Interim contractors that may affect listed species, Reclamation will initiate informal consultation with the Service. For those inclusions with direct or indirect effects that are likely to adversely affect listed species, or result

*in take, Reclamation will consult formally with the Service. Reclamation, through informal consultation with the Service, will determine if the inclusions or annexations will not affect listed species prior to signing of the FONSI or ROD.*

Status: Subsequent to the 2000 Interim biological opinion, four CVP contractors had boundary inclusions, and three CVP contractors had boundary exclusions (e.g., +66 acres in El Dorado Irrigation District, +200 acres in Plain View Water District, +123 acres in Corning Water District, and +189 acres annexed to Clear Creek Community Services District. The exclusions were: -149 acres in The West Side Irrigation District, -53 acres in Westlands Water District #2 and, -1400 acres in Westside Water District). Reclamation Area Office biologists reviewed these exclusions and inclusions and determined that they would not affect listed species. NEPA compliance was completed through a Categorical Exclusion Checklist (i.e. no FONSI was prepared). The Service was notified of the no-effect determinations and of the inclusion/exclusion actions. These annexations were completed without informal consultation with the Service.

Needs: Reclamation, through coordination and informal consultation with the Service, will determine if their inclusions or exclusions affect listed species prior to finalizing the action or signing of a FONSI or ROD. Pursuant to section IV (I)(8) of the CVPIA opinion (page 2-70), Reclamation will work with the Service's SFWO Endangered Species Division in future situations where a determination of a no effect has been made, sufficiently in advance, to enable the Service's review. Any listed species effects of annexations in the Redding area that were done since the CVPIA opinion without consultation with the Service would be addressed by Reclamation.

**4) Transfers involving Interim contractors** *Reclamation will apply the following criteria to all transfers and exchanges (from the date of this opinion up to long-term contract renewal) involving Interim or Friant Division contractors that have not already undergone section 7 consultation:*

- 1. Transfers and exchanges will be executed for **one year only** for any district that does not have an established listed-species baseline as described in the biological opinion on operations and maintenance of the Central Valley Project and implementation of the Central Valley Project Improvement Act of 1992;*
- 2. Transferred or exchanged water will be delivered and applied only to areas that were in cultivation from October 15, 1991 (the date of the Friant biological opinion), until one of the following occur and there is no net loss of potential listed-species habitat as a **direct or indirect** result of the transfer:*
  - a. consultation on the effect of putting the area into cultivation has been completed, or,*
  - b. there is an HCP in place that addresses impacts to the area receiving the water, or,*

*c. the CVP Conservation Program has a line-item, specific increase in funding to compensate fully for the transfer and is in place prior to the transfer.*

*3. All other non-historic CVP transfers and exchanges that do not meet the above criteria will require separate section 7 or section 10 authorization.*

Status: In March of 2000, Reclamation prepared EAs for five year "Blanket Approval of Historic, Temporary Transfers, and Exchanges of CVP Water" in each CVP region. Reclamation consulted with the Service on these "blanket EAs", and the Service subsequently responded on March 7, 2000, with a concurrence of not likely to adversely affect listed species. All CVP water transfers must comply with required water transfer criteria specified in the Blanket EA project description. These transfer criteria include all 2000 Interim Opinion criteria listed in the above paragraphs, and also include these criteria:

- Transfers are for one year only. Concurrence will be reviewed and provided annually over the five-year period covered in the blanket EA consultation.
- Transfers are within three geographic areas (Sacramento Valley, South of the Delta Contractors, or the Friant Unit), There area not transfers between these areas.
- There is no land-use changes allowed with transfers. Water goes only to refuges, lands irrigated within the last three years, for groundwater recharge, for maintenance of fish and wildlife resources.
- Transfers occur only between willing buyers and sellers,
- Transfers occur within a single water year.
- Transfers use existing facilities.
- Transfers would not result in any change in existing CVP operations.
- Transfers must comply with all other applicable Federal, State, local or tribal laws.
- Transfers would not result in the irrigation of any new or additional agricultural lands. Water is delivered to established cropland. No conversion grassland or shrub land to agricultural land would occur.
- Information on all transfers will be posted on an internet site at, [www.calwater.ca.gov/programs/watertransfers/watertransfers.suturl](http://www.calwater.ca.gov/programs/watertransfers/watertransfers.suturl) so as to be accessible to the Service.

Reclamation is currently preparing Blanket Transfer EAs for the five-year period beginning in 2005. Reclamation will consult with the Service on these 2005 EAs as appropriate. The Central Valley Habitat Monitoring Program has completed endangered species baseline habitat mapping in each district as described in the CVPIA Biological Opinion, and continues to monitor habitat trends in the environmental baseline. Reclamation has continued to consult on any water transfers that may affect listed and proposed species. Subsequent to the 2000 interim renewal BO, Reclamation consulted annually on the following transfers: San Joaquin River Exchange Contractors Water Authority, Service File No., 1-1-I-00-1288; Historic Inter-District CVP Transfers, Service File Nos., 1-1-I-00-1118 and 1-1-00-I-1024, Friant Historic and Warren Act, Service File No., 1-1-02-I-0102), and South of Delta Historic, Warren Act, and San Joaquin Exchange Contractors, Service File No., 1-1-02-I-0903. Transfers are renewed for one year until

the listed species baseline is established: The effects on delta smelt of transfers involving CVP water delivered through the Delta Mendota Canal or San Luis Canal, wheeled through the CVP or SWP, and totaling up to 250,000 acre-feet annually were addressed in the 1995 OCAP biological opinion.

Needs: For Warren Act, water wheeling, Surplus Flood Flow water contracts, and water transfers, Reclamation and the Service have establish a habitat baseline tracking program that assures compliance with the ESA. Because of the high number of transfers that occur annually, the Service and Reclamation are collaborating on streamlining the consultation process to allow for expedited consultation on CVP water transfers.

### **Terms and Conditions from the 2000 Interim Opinion**

In addition to the conservation measures referenced above, the Interim opinion of 2000 included non-discretionary terms and conditions which Reclamation must comply with in order to be exempt from the prohibitions of section 9 of ESA. The status and needs associated with the implementation of these terms and conditions are presented below.

***I.A. Pesticide Guidelines.*** *Reclamation, with assistance from the Service, will work with the California Department of Pesticide Regulation (CDPR) to develop guidelines that provide an update on work that has been completed on this measure. Reclamation will provide to the Service **within 1 month** from the issuance of this opinion a status report related to this measure. In addition, Reclamation, working with the Service, will provide information to CDPR generated from mapping efforts described in Conservation Measure 1(c) of the Project Description as information is generated and that new information will be provided to CDPR to be posted on their web site for listed species information. Should CDPR not post this information Reclamation will post this information on their own web site.*

A related conservation measure, numbered 2a, was provided in the project description of the 2000 Interim biological opinion. Status: Reclamation provided a memo to the Service regarding the status of Coordination with California Department of Pesticide Regulation (CDPR) in a joint effort to provide listed species information to pesticide users. These measures are part of the O&M Guidelines for the Protection of Federally Listed Species, (includes IPM Plan and Field Operations Manual for the Protection of Federally Listed Species, discussed above under 2a and 2b).

Needs: Reclamation, working with the Service, will provide information to CDPR generated from 1c above, and from other sources, as appropriate, as information is generated and that new information will be provided to CDPR for posting on their web site for listed species information.

***II. Reclamation will identify land and water use techniques or measures within CVP service areas which are critically impacting listed and proposed species or their habitats.***

***IIA. Within 60 days of this opinion, Reclamation, in consultation with the Service, will prepare a study plan to identify the sources of selenium contamination in the Grasslands, San Joaquin River, and south Delta estuary. The study plan to be developed will identify and quantify all known sources of selenium that contribute to contamination of water supplies to the Federal, State and private wetlands of the Grasslands area, the San Joaquin River, and southern Sacramento-San Joaquin Delta. Included in such a plan should be an analysis identifying and quantifying loads from known sources such as the Delta-Mendota Canal pumping project, the Mendota Pool Group groundwater pumping project, and discharges into the San Luis Drain from Panoche Creek flood flows. Further, the plan should provide information regarding ongoing efforts to reduce selenium in the Grasslands Area, other studies being conducted related to this venture, and any applicable reports from other investigations that have been completed (e.g., California Central Valley Regional Water Quality Control Board investigations).***

**Status: Completed.** In status report tables that Reclamation provided to the Service on July 7, 2000, October 18, 2000, and December 14, 2001, Reclamation stated that this requirement is already being handled through the existing Grassland Bypass Project monitoring program. Although some monitoring is ongoing in the Grasslands, there is no monitoring being conducted, as part of the Grasslands Bypass Project, for selenium contamination in the Mendota Pool, the San Joaquin River downstream of Crows Landing, or the Delta, nor does the Grassland Bypass Project monitoring seek to identify and quantify all sources of selenium contaminant loading as described. To date, no study plan has been provided to the Service fully addressing this term and condition of the Interim Biological Opinion.

***IIB. Reclamation will develop and implement a Service approved monitoring program within 6 months of this opinion to assess the effects of selenium loading within the San Joaquin River on aquatic listed species or their surrogates (including but not necessarily limited to Sacramento splittail, Delta smelt, and giant garter snake) using the lower San Joaquin River and southern Sacramento-San Joaquin Delta. Such a program should determine tissue concentration for these species (or appropriate surrogates) collected from these areas. Initial data from this program will be made available to the Service to be used in the effects analyses of long-term contract renewal on aquatic listed species and used to minimize take.***

**Status:** Reclamation has complied with this term and condition. Reclamation provided the Service with \$15,000 for analytical work on fourteen Sacramento splittail specimens that were collected at the State and Federal pumps in FY 2000. The splittail were analyzed for selenium, boron, and other contaminants. Also, see Status write-up under 2.A. above. The ESA Sacramento splittail was delisted in 2003.

***IIC. If selenium concentration in refuge water supplies exceeds the 2ug/l monthly mean standard for wetland water supplies in the Grasslands, and this contamination is a result either directly or indirectly from Reclamation actions, Reclamation will identify and implement corrective actions and initiate separate formal consultation with the Service.***

***Reclamation will provide quarterly reports to the Service on locations of monitoring and monitoring results. These reports can be in conjunction with the monitoring and reporting required under the January 20, 1998, Interim Water Contract Renewal Opinion amendment (Service file #1-1-98-I-383).***

Status: Reclamation noted in their Quarterly Status Report Table provided to the Service on July 7, 2000, that this term and condition was being handled with the existing monitoring program and existing quarterly reports.

***III. Identify, analyze and compensate for effects since 1995 for Interim contractors.***

***IIIB. Reclamation will identify and analyze the impacts of changes to contract service-area boundaries since 1995 for Interim contractors and provide this information and the associated GIS data layers to the Service prior to initiation of consultation for long-term contract renewal. Reclamation will fully compensate for any impacts associated with changes to contract service-area boundaries for Interim contracts prior to long-term contract renewal or an additional interim period.***

Status: Completed. Reclamation provided the Service with draft maps in May 2000 and in materials provided for this consultation that show changes in interim contract service area boundaries (from year 1995 to year 2000) and acreage changes by district.

Need: Further information and analysis is expected to be provided in long-term contract renewal BAs regarding any listed species habitat present where contract service area boundaries expanded.

***IIIC. Reclamation will identify and analyze the impacts of changes in purpose of use since 1991 for Friant contractors and 1995 for Interim contractors and provide this information and analysis to the Service prior to initiation of consultation for long-term contract renewal or reinitiation on OCAP. Specifically, Reclamation will provide to the Service prior to long-term contract renewal or an additional interim period an analysis on how changes in purpose of use will affect shortages to districts, and how these changes in allocations will affect CVP-wide water supplies under drought conditions.***

Status: In their Status Report Tables provided to the Service on July 7, 2000, and December 14, 2001, Reclamation stated that the 1995 Interim contract renewal consultation covered "change of purpose of use from Ag to M&I". This was not the case. Sixteen of the Interim contracts covered under the interim biological opinion of 1995 were changed from Ag only to Ag/M&I Contracts subsequent to the completion of that opinion. The changes of purpose of use were not covered in the Interim biological opinions of 1995 or 2000. The Service has not consulted on the changes to purpose of use in these contracts, and therefore any take associated with these actions is not covered. The 1997 draft CVPIA Administrative Proposal on M&I shortage policy stipulates that the Ag shortage provisions are still applied if contracted purpose of use was changed to include M&I subsequent to 1994. Reclamation proposed changes to the M&I shortage policy on

September 11, 2001 (66 FR 54780). The Service provided comments to Reclamation on these proposed changes to the M&I shortage policy on December 5, 2001, (Service File No. 1-1-02-I-0318) and requested that Reclamation initiate formal consultation on this policy.

Needs: Reclamation needs to identify and analyze the impacts to listed species and critical habitat of changes in purpose of use since 1995 for Interim contracts and the revised M&I shortage policy, and to provide this information and analysis to the Service prior to initiation of consultation for long-term contract renewal or reinitiation of OCAP. Specifically, Reclamation should provide a Biological Assessment for the water shortage policy and initiate section 7 consultations to address the effects of the shortage policy on federally listed species and environmental commitments described in the Friant, Interim, CVPIA PEIS, OCAP and CalFed biological opinions.

***IIID.*** *Reclamation will identify and analyze the impacts of all water assignments executed since 1995 for Interim contractors and provide this information to the Service prior to initiation of consultation for long-term contract renewal. Reclamation will fully compensate for any impacts associated with past water assignments of Interim and Friant Division water allocations prior to long-term contract renewal or an additional interim period.*

Status: In Status Report Tables provided to the Service on July 7, 2000, October 18, 2000, December 14, 2001, and November 2003, Reclamation noted that information gathering and data analysis for this term and condition is ongoing. Reclamation further noted that information will be provided in BA's for Long-Term Contract Renewal. Where long-term renewal consultation has been initiated, there may need to be supplemental information provided for assignments completed in the recent past.

Needs: Reclamation will identify and analyze in BA's for long-term contract renewals the impacts of all water assignments executed since 1995 for Interim contractors and provide this information to the Service. Reclamation and the Applicants, as appropriate, should compensate for any listed species impacts associated with past water assignments of Interim water allocations.

***IV.A-F.*** *Consult with the Service on future actions including changes in purpose of use of contracts, transfers involving Interim or Friant Division contractors, assignments, and inclusions, annexations and exclusions to contract service area boundaries.*

Status and Needs: See earlier discussion under **Future Impacts**.

***V.*** *Develop and implement a program to compensate for losses of listed species habitat that occur as a result of delivery of Central Valley Project water to the Interim and Friant Division contract service areas.*

***V. A.*** *Reclamation and the Interim and Friant Division contractors will establish a contingency plan that would develop and implement a process to identify impacts and then address*

*those impacts to listed species or their habitats within the Interim and Friant Division's contract service area that occur as a result delivering CVP water to the contractors.*

- B. Reclamation will ensure implementation of the contingency plan to address impacts to species or their habitats within the Interim and Friant Division's contract service area that occur without a Service incidental take authorization.*
- C. The contingency plan for impacts to listed species or their habitat will be reviewed in a section 7 consultation with the Service and will incorporate compensation for temporal and other habitat losses. Losses of listed species habitat within the Interim and Friant contract service areas will be compensated at ratios consistent with the recovery needs for those listed species.*

Status: In materials provided for this consultation, Reclamation committed to work with the Service to develop such a plan that recognizes Reclamation's authorities and to provide a draft of such a contingency plan within 60 days of receipt of the biological opinion on the proposed interim contracts. Reclamation agrees to work with the Service to develop a contingency program for Reclamation's interim contract renewal action that incorporates the following criteria:

- Use of monitoring and mapping actions to identify land use changes that result in losses of listed species habitat.
- Notification to and education of districts of need to comply with requirements of the Endangered Species Act.
- Reporting to the Service of any activities that may have resulted in unauthorized losses of listed species habitat.
- Development of compensation plans for any land-use changes that result in loss of listed species resulting from Reclamation's discretionary actions.
- Coordination with the Service to ensure existing conservation programs continue to address listed species that have been affected by use of CVP water.

Needs: Reclamation commits to work with the Service to develop such a plan that recognizes Reclamation's authorities.

## 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 Large-flowered Fiddleneck Recovery Plan (USFWS 1997); 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); Draft Recovery Plan for the Giant Garter Snake (USFWS 1999); Final Recovery Plan for the California Red-legged Frog (USFWS 2002a), and Recovery Plan for Gabbro Soil Plants of the Central Sierra Nevada Foothills (USFWS 2002).

As stated in the Project Description, Reclamation proposes interim contracts for 17 contractors (Table 2) not analyzed in 1995, 2000, or 2002 biological opinions. Addition of the 17 contractors expands the action area for this consultation to include the service areas of the 17 new interim contractors. The 17 new interim contractors are within Divisions that have been addressed in previous consultations on interim contracts (Appendix A).

### Updates to the Baseline

#### *Central California tiger salamander Distinct Population Segment (DPS).*

Species Description and Life History: The Central DPS of the California tiger salamander was proposed as a threatened species on May 23, 2003 (**Federal Register** 68:28648). The California tiger salamander is a large, stocky terrestrial salamander with small eyes and a broad, rounded snout. Adults may reach 8.2 inches in length; males are, on average, larger than females. California tiger salamanders are restricted to vernal pools and seasonal wetlands in grassland and oak savannah plant communities from sea level to about 1,500 feet. Subadult and adult California tiger salamanders spend the dry summer and fall months of the year estivating in burrows of small mammals, but breed in seasonal pools or stockpools associated with upland estivation habitat. More about the biology of that animal can be found in the May 23, 2003 notice.

Historic and Current Distribution: The Central DPS occurs in the coast ranges of southern San Mateo County south to central San Luis Obispo County, and in the Central Valley and Sierra Nevada foothills from northern Yolo County southward to northwestern Kern County and northern Tulare County. California tiger salamanders are now known west of Interstate Highway 680 and north of Interstate Highway 580 in Contra Costa or Alameda Counties. In addition, it is likely that the species is uncommon or absent in much of the southernmost San Joaquin Valley from approximately Los Banos in Merced County south, and the foothills of the Sierra Nevada south of Visalia in Tulare County (FR 68:28648-28670). Records of the Central DPS of the California tiger salamander occur within the following interim contract units and water districts: County of Fresno, Hills Valley Irrigation District, Dunnigan Water District, the Pajaro Valley Water Management Agency in Monterey County (receiving a partial water assignment from

Mercy Springs Water District, which is the interim contractor), and Santa Clara Valley Water District (receiving a partial water assignment from Mercy Springs Water District, which is the interim contractor), and Tulare County.

Reasons for Decline and Threats to Survival: California tiger salamanders have declined as a result of, and remain threatened by habitat loss and fragmentation resulting from a variety of urban and agricultural land uses. These activities have impacted both wetland breeding habitat and upland habitat. Other factors considered as threats to the California tiger salamander include predation of eggs and larvae from non-native predators such as bullfrogs and western mosquitofish; pesticides and other contaminants; rodenticides used to control ground squirrels and pocket gophers on rangelands; and hybridization with nonnative salamanders, among others (FR 68:28648-28670).

#### *Alameda Whipsnake Critical Habitat*

Critical habitat for Alameda whipsnake in the action area was vacated and remanded to the Fish and Wildlife Service to redesignate in Home Builders Association of California et al. v. United States Fish and Wildlife Service, et al., case no. CV F 01-5722 AWI SMS filed in the United States District Court for the Eastern District of California, May 9, 2003.

#### *California Red-legged Frog Critical Habitat*

Critical habitat for the California red-legged frog in the action area was vacated and remanded to the Fish and Wildlife Service to redesignate in Home Builders Association of California et al. v. Gale Norton, Secretary of the Department of the Interior, et al., case no. 01-1291 (RJL) filed in the United States District Court for the District of Columbia, November 6, 2002.

#### *Sacramento Splittail*

The Sacramento splittail was removed from the list of threatened and endangered species on September 22, 2003 (Federal Register 68:55140-55166). We were able to delist this species because implementation of habitat restoration programs under CALFED and the Central Valley Project Improvement Act are thought to benefit splittail spawning and rearing habitat to an extent that the species is no longer threatened with extinction in the foreseeable future. In addition, it is thought that these programs ensure that future water operations and development will protect and improve existing habitats.

#### *Hoover's Woolly star*

Hoover's woolly-star was removed from the list of threatened and endangered species on October 7, 2003 (**Federal Register** 68:57289-57837). We were able to delist this species due to the discovery of new populations and implementation of recovery actions.

*Vernal Pool Critical Habitat*

Critical habitat was designated on August 6, 2003, for 15 federally listed vernal plants and crustaceans (**Federal Register** 68:466684), including Colusa grass, Conservancy fairy shrimp, fleshy owl's clover, Greene's tuctoria, hairy Orcutt grass, Hoover's spurge, longhorn fairy shrimp, Sacramento Orcutt grass, San Joaquin Valley Orcutt grass, slender Orcutt grass, vernal pool fairy shrimp, and vernal pool tadpole shrimp addressed in this consultation. Contra Costa goldfields is not extant, and its critical habitat does not occur, within any of the interim contract water districts. Unit 8 is entirely within Alameda County, and Unit 9 in Monterey County is on Fort Ord.

Approximately 8,792 acres of designated vernal pool critical habitat occurs within the water service area of the following interim contractors: Proberta Water District (393 acres); Thomes Creek (212 acres); Kirkwood Water District (127 acres); Bella Vista (294 acres); County of Fresno (1,292 acres); Lower Tule River (5,560 acres); Pixley Irrigation District (395 acres); and Tulare County (395 acres).

*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 (USDI-BOR/FWS 2003) 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 described in the Project Description.

**Effects of the Proposed Action and Cumulative Effects**

This biological opinion analyzes the reasonably foreseeable effects of implementation of the 59 interim water contracts over a period of two years, from the year 2004 through 2006. Refer to the Introduction for a discussion of the relationship of this consultation to related Reclamation actions that also require consultation.

*Assumptions.* This subsection, while not exhaustive, lays out some of the assumptions we have made in order to complete this effects analysis. Failure to meet any of these assumptions may be grounds for reinitiation of this consultation.

1. 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.
2. 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 requested consultation on operations and maintenance of Reclamation water conveyance facilities as described in the Project Description.
3. 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. 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.
4. The new areas considered in the new interim contracts are similar to the areas considered in the 2002 biological opinion. The "new" interim contractors are relatively minor in size and are predominantly agricultural areas, with the exception of El Dorado Irrigation District, Santa Clara Water District, and San Juan Water District, all of which have been addressed in previous interim contract biological opinions.
5. 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).
6. 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 was provided in Appendix D of the December 23, 2003 draft FONSI.
7. Reclamation is not consulting on any "on-farm" actions such as cropping practices/fallowing/enrollment in conservation programs.
8. 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.
9. 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.

10. 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)).

### **Action Area**

The action area for this consultation comprises the aggregate area of the 59 contract water service areas analyzed in this biological opinion throughout the Central Valley and Sierra foothills of central California and, for San Joaquin Valley contractors, the approximately 2-mile area estimated to represent the extent of influence of groundwater recharge from CVP surface water supplies. Description of the new interim contract service areas is in Attachment 2, Supplemental Information on Interim Renewal Contracts (USDI-BOR 2003a).

### **Direct Effects and Effects of Interrelated and Interdependent Actions**

The Service anticipates no direct effects to listed species associated with the proposed execution of up to 59 interim contracts listed in Table 2 (new for 2004) and Appendix A (rollovers from 2002) for up to two years between March 1, 2004 through February 28, 2006. Operation and maintenance of CVP water conveyance facilities, which can be considered interdependent actions, are undergoing simultaneous consultation as described in the Introduction, and are not addressed in this biological opinion.

### **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 all species 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 (USDI-BOR 2003a). 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. Most of the loss of natural landcover appeared to have occurred in rapidly urbanizing water districts such as El Dorado Irrigation District (western El Dorado County); San Juan Water District (Sacramento County), and Santa Clara Valley Water District (Santa Clara County).

*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 USDI-BOR/FWS 2003.

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.* It is the Service's understanding that the proposed contracts would provide unchanged amounts of water to the contractors (see Assumptions, above). 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. The same principle would apply to giant garter snake and rice land fallowing as different amounts of land in different areas may be fallowed from one year to another. In the absence of opportunity to evaluate trends in land uses in the contract areas, 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 59 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. Appendices D and E of the December 23, 2003, Draft Finding of No Significant Impact (draft FONSO) (USDI-BOR 2003b) provide 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, El Dorado Irrigation District and Santa Clara Water District, 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.

Likewise, conversions outside the Districts that use groundwater and are within the zone materially affected by recharge from Federal water applications could continue, and are interrelated with the proposed contract deliveries. There may also be some use of tail-waters flowing off areas supplied by Federal deliveries, both in and below the contract service areas. Such interrelated but uncontrolled conversions are supported by the Federal action because they rely on groundwater recharge by Federal water. Even if the actual "Federal" water molecules have not yet reached their wells, recharge by Federal water can be responsible for the hydraulic head that makes sufficient quantities of water available to their pumps. Based on recent trends, however, it is reasonable to expect that interrelated uncontrolled conversions will take place with detectable effects. These actions contribute to stressors on listed species and underscore the importance of continued implementation of conservation programs throughout areas that receive Central Valley Project water.

We consider habitats of value to listed species within two miles of contracting districts to be vulnerable to two forms of habitat conversion resulting from federal water deliveries: annexation into contracting districts, and conversions supported by groundwater recharge. Some such conversions may undergo independent processes to comply with the Act, either section 7 or section 10.

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 FONSI (USDI-BOR 2003b), we do not anticipate that habitat loss and fragmentation within the 59 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 is 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. A detailed discussion of Reclamation actions regarding selenium drainage was provided in Attachment 2, Supplemental Information on Interim Renewal Contracts (USDI-BOR 2003a).

*Riparian Habitats.* Riparian habitats that had previously flooded too frequently to sustain permanent agriculture or residence are now subject to developmental pressures (Service 1991) due to development of extensive flood control projects throughout the Central Valley. It is estimated that only 5.8 percent of riparian habitat along the San Joaquin remains in the mid-1980's. The acreage is likely to be much less today (Service 1998). Conversion of riparian habitat for agriculture and development in some locations is supported by CVP water deliveries.

Listed species associated with riparian habitats in the San Joaquin Valley include: Buena Vista lake shrew, giant garter snake, least Bell's vireo, riparian brush rabbit, riparian woodrat, and valley elderberry longhorn beetle. The giant garter snake and valley elderberry longhorn beetle are widely distributed throughout the valley. Although the loss of additional riparian habitat would adversely impact these species, it would not jeopardize their recovery. The least Bell's vireo has sufficient populations in their southern range to sustain the species in the foreseeable future. However, restoration of riparian habitat in the San Joaquin Valley was identified as a critical task to recovery (Service 1998a, Task 1.123).

Buena Vista lake shrew, riparian brush rabbit, and riparian woodrat, are known from few localities, and are facing eminent extinction if trends are not reversed. Thus, restoration of riparian habitat along the Central Valley, their historical habitat, is critical to the recovery of these species. In past years, Reclamation has been working with the Service, ESRP and other partners to initiate recovery efforts for these riparian species. Projects included censussing riparian brush rabbit and riparian woodrat populations in Caswell Memorial State Park, investigating protection of the Park, and working to establish an experimental population of

riparian brush rabbit on Reclamation owned land along Kings River in Fresno County. The accomplishments of these programs are summarized in CVPIA workplans (USDI-BOR/FWS 2003).

### **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 4,000 af of water, so no more than approximately 6,000 af total can be used by Santa Clara Valley WD between March 1, 2004 and the end of February 2009. Most likely, Santa Clara Valley WD, instead of Westlands WD, would schedule all or a portion of the 6,000 af available pursuant to the assignment, only if CVP allocations in either 2004 or 2005 are significantly less than 100 percent.

Trend data provided by Reclamation in Appendix D of the Draft FONSI (USDI-BOR 2003b) indicates that more than 500 acres of natural lands have been converted to urban uses in the period from 1993 to 2000. 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 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 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.

### **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. The maximum 6,260 acre-feet proposed would be adequate to irrigate perhaps 2,000 to 5,000 acres. We therefore expect that the impact of the proposed action to the conservation status of listed species would not be appreciable for the two year interim period.

### **City of Tracy**

The proposed assignments from Banta Carbona Irrigation District and West Side Irrigation District to the City of Tracy will be used to support additional urban growth in the City of Tracy. Urban expansion in the City of Tracy will result in habitat loss and fragmentation for the San Joaquin kit fox. The effects of this assignment, together with the effects of interdependent actions, are 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. Reclamation has completed Endangered Species Act compliance for this assignment through our April 15, 2003, biological opinion on these assignments (Service file # 1-1-03-F-0128).

### **El Dorado Irrigation District**

The proposed action also includes the execution of contract No. 14-06-200-949-IR7 with El Dorado Irrigation District while pending final transfer of the Sly Park Unit title to the El Dorado Irrigation District. Information provided in Appendices C and D of the Draft FONSI (USDI-BOR 2003b) indicates that approximately 3,000 acres of natural lands have been converted to urban uses during the period between 1993 and 2000; however, the actual amount of conversion is somewhat less because the 3,000 acres does not deduct overlap in service area between El Dorado Irrigation District - Sly Park, and El Dorado Irrigation District. No information was provided as to whether those lands were within the range of the gabbro soils plants or the California red-legged frog. We do have information that conservation programs undertaken by Reclamation, in partnership with others, has continued to provide funding to acquire, protect, manage, and restore important recovery habitat for gabbro soils plants and California red-legged frog in western El Dorado County during the same period (USDI-BOR/FWS 2003).

### **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, western El Dorado County, San Juan Water District, and the City of Tracy, 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. In western El Dorado County, we believe that ongoing funding of habitat for gabbro soils plants through the CVPIA Habitat Restoration fund (USDI-BOR/FWS 2003), in partnership with other funding sources, and high level of local awareness of the sensitivity of these plants to further habitat conversion and fragmentation, likely lowers the likelihood of cumulative effects rising to a level of significance that would preclude the survival or recovery of these species during the next two years. As described in the effects section above, the effects of growth over the next two years and beyond are covered by their section 10(a) (1)(B) permit issued for the San Joaquin Multi-Species Conservation Plan.

## 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 59 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.

After reviewing the current status of the Central Distinct Population Segment of the California tiger salamander, the environmental baseline for the action area, the effects of the proposed

action and the cumulative effects, it is the Service's conference opinion that the interim renewal of 59 water service contracts, as proposed, is not likely to jeopardize the continued existence of the proposed Central Distinct Population Segment of the California tiger salamander.

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 59 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 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.

This concludes the conference on the Central DPS of the California tiger salamander for the proposed interim renewal of 59 water service contracts. You may ask the Service to confirm the conference opinion as a biological opinion issued through formal consultation if the Central DPS of the California tiger salamander is listed. The request must be in writing. If the Service reviews the proposed action and finds that there have been no significant changes in the action as planned or in the information used during the conference, the Service will confirm the conference opinion as the biological opinion on the project and no further section 7 consultation will be necessary. Reclamation shall request reinitiation of consultation if, upon reviewing the effects of the proposed action after the California tiger salamander Central DPS becomes a listed species: (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.

The incidental take statement provided in this conference opinion does not become effective until the species is listed and the conference opinion is adopted as the biological opinion issued through formal consultation. At that time, the project will be reviewed to determine whether any take of the Central DPS of the California tiger salamander has occurred. No incidental take was exempted in this conference opinion for the Central DPS of the California tiger salamander. Any changes in the effects of the action that result in take that should be exempted shall be addressed through reinitiation of consultation or conference.

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

Attachments

Appendix A

## Literature Cited

- Beam, J., K. Cripe and C. Fien. 1999. San Joaquin Valley Giant Garter Snake Project. Unpublished report, California Department of Fish and Game, Los Banos, California, 3 pp. and attachments.
- Beckon, W. N., M. Dunne, J. D. Henderson, J. P. Skorupa, S. E. Schwarzbach, and T. C. Maurer. 1999. Biological effects of the reopening of the San Luis Drain to carry subsurface irrigation drainwater. Pages 91-118 in: Grassland Bypass Project Annual Report October 1, 1997 through September 30, 1998. U. S. Bureau of Reclamation, Sacramento, California.
- Beckon, W. N., M. Dunne, and A. Holmes. 2001. Biological Effects, Chapter 7 in [DRAFT] Grassland Bypass Project Annual Report 2000. San Francisco Estuary Institute for U. S. Bureau of Reclamation, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, U.S. Geological Survey, Central Valley Regional Water Quality Control Board, California Department of Fish and Game, and San Luis & Delta-Mendota Water Authority. Sacramento, California.
- Brode, J. and G. Hansen. 1992. Status and future management of the giant garter snake (*Thamnophis gigas*) within the southern American Basin, Sacramento and Sutter counties, California. California Department of Fish and Game, Inland Fisheries Division, January 1992.
- Burger, J. 1992. Trace Element Levels in Pine Snake Hatchlings: Tissue and Temporal Differences. *Arch Environ. Contam. Toxicol.* 22:209-213.
- California Department of Fish and Game. 1997. Recovery Workshop Summary: South Bay Area serpentine plants. Plant conservation Program, California Department of Fish and Game, Sacramento, California.
- Cech, J.J., Jr., B.W. Wilson, and D.G. Crosby. 1998. Multiple Stresses in Ecosystems. Lewis Publishers, Boca Raton, Florida. 202 p.
- Chilcott, J. May 2000. Review of Selenium Concentrations in Wetland Water Supply Channels in the Grassland Watershed. Staff Report of the California Regional Water Quality Control Board, Central Valley Region, Sacramento, California, 25 pp.
- (CNNDDB) California Natural Diversity Data Base. 1996. Natural Heritage Division. California Department of Fish and Game. State of California.
- Corelli, T. 1991. A Petition to the State of California Fish and Game Commission to list Coyote Ceanothus (*Ceanothus ferrisiae*). 7 pp.

- Craft, D., L. Mao, J. Fields, and B. Moore. January 2000. Tracy Fish Collection Facility Studies California. Volume 9, Chemistry and Water Quality at the Tracy Fish Collection Facility, Tracy, California. U.S. Bureau of Reclamation, Mid Pacific Region, Sacramento, California.
- (CSWRCB) California State Water Resources Control Board. 1994. Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. CSWRCB, Sacramento, California 95 pp.
- Cutter, G.A., L.S. Cutter, M. Doblin, and S. Meseck. 2000. Selenium in the San Francisco Bay and Delta: historical trends and present status. *In* CALFED Bay-Delta Program Science Conference 2000. Data presented at the CALFED Science Conference in October 2000.
- Cutter, G.A., and M.L.C. San Diego-McGlone. 1990. Temporal variability of selenium fluxes in San Francisco Bay. *The Science of the Total Environment* 97/98:235-250.
- Davis, J. A., M.D. May, G. Ichikawa, and D. Crane. 2000. Contaminant concentrations in fish from the Sacramento-San Joaquin Delta and Lower San Joaquin River, 1998. San Francisco Estuary Institute, Richmond, California.
- Davidson, C., H.B. Shaffer, and M.R. Jennings. 2001. Declines in the California red-legged frog: climate, UV-B, habitat, and pesticide hypothesis. *Ecological Applications* 11(2):464-479 cited in FR 68:28649-28670
- Davidson, C., H.B. Shaffer, and M.R. Jennings. 2001. Cited in FR 68:28649-28670 Endangered and Threatened Wildlife and Plants; Listing of the Central California Distinct Population Segment of the California Tiger Salamander; Proposed Rule
- Engberg, R.A., D. W. Westcott, M. Delamore, and D.D. Holz. 1998. Federal and state perspectives on regulation and remediation of irrigation-induced selenium problems. *In* *Environmental Chemistry of Selenium*, W. T. Frankenberger and S. Benson, eds. New York: Marcel Dekker.
- Feyrer, F. and S. Matern. 2000. Changes in fish diets in the San Francisco Estuary following the invasion of the clam *Potamocorbula amurensis*. *IEP Newsletter* Volume 13, Number 4, Fall 2000.
- Fitch, H. S. 1941. Geographic variation in garter snakes of the genus *Thamnophis sirtalis* in the Pacific coast region of North America. *American Midland Naturalist*, 26:570-592.
- Grassland Bypass Project. May 2001. Monthly Data Report, March 2001, Preliminary Results. Compiled by the San Francisco Estuary Institute, 19 pp.

- Hansen, G.E. 1982. Status of the giant garter snake (*Thamnophis couchi gigas*) along portions of Laguna and Elk Grove creeks, Sacramento County, California. Report to Sacramento County Planning Dept. 15 p.
- Hansen, G.E. 1986. Status of the giant garter snake *Thamnophis couchi gigas* (Fitch) in the Southern Sacramento Valley During 1986. Final report for Calif. Depart. Fish and Game Standard Agreement No. C-1433. Unpubl. 31 pp.
- Hansen, G. E. 1996. Status of the giant garter snake (*Thamnophis gigas*) in the San Joaquin Valley in 1995. Final report for Calif. Depart. Fish and Game Standard Agreement No. FG4052IF. Unpubl. 31 pp.
- Hansen, R. W. 1980. Western aquatic garter snakes in central California: an ecological and evolutionary perspective. Fresno, California. California State University, Fresno. Thesis. 78 pp.
- Hansen, R. W. 1988. Review of the status of the giant garter snake (*Thamnophis couchi gigas*) and its supporting habitat during 1986-87. Final report to California Department of Fish and Game, Contract C-2060. 31 pp.
- Harvey (H. T.) & Associates. 1997. Santa Clara Valley Water District: California red-legged frog distribution and status – 1997. Prepared for Santa Clara Valley Water District, June 3, 1997. 16+ pp.
- Harvey (H. T.) & Associates. 2000. Santa Clara Valley dudleya (*Dudleya setchellii*) county-wide survey (Project No. 873-05). Report prepared for Peter Dunne, Standard Pacific, Los Gatos, California. November 7, 2000, 27+ pp., figs.
- Heinz, G. H. 1996. Selenium in birds. In *Interpreting Environmental Contaminants in Animal Tissues*, W. N. Beyer, G. H. Heinz, and A.W. Redmon, eds., pp. 453-464. Boca Raton, Florida: Lewis Publishers.
- Heinz, Gary H., D.J. Hoffman. 1998. Methylmercury chloride and selenomethionine interactions on health and reproduction in mallards. *Environ. Toxicol. Chem.*, 17:139-145.
- Hinds, N.E.A. 1952. Evolution of the California landscape. Calif. Div. of Mines Bull. No. 158. 240 pp.
- Huenneke, L.F., S.P. Hamburg, R. Koide, H.A. Mooney, and P.M. Vitousek. 1990. Effects of soil resources on plant invasion and community structure in Californian serpentine grassland. *Ecology* 71: 478-491.

- Hunter, J.C. 1989. Report to the Fish and Game Commission on the status of Tiburon indian paintbrush (*Castilleja neglecta*). Natural Heritage Division, California Department of Fish and Game. Status Report 89-12.
- Imai, I., S. Itakura, Y. Matsuyama, and M. Yamaguchi. 1996. Selenium requirement for growth of a novel red tide flagellate *Chattonella verruculosa* (Raphidophyceae) in culture. *Fisheries Sci.*, 62:834-835.
- Jarvinen, A.W., and G.T. Ankley. 1999. Linkage of effects to tissue residues: development of a comprehensive database for aquatic organisms exposed to inorganic and organic chemicals. Society of Environmental Toxicology and Chemistry (SETAC) Press, Pensacola, Florida. 364 pp.
- Kimmerer, W. and C. Pe alva. 2000. All Copepods are not created equal effects of the clam *Potamocorbula amurensis* on estuarine foodwebs. In CALFED Bay-Delta Program Science Conference 2000. Data presented at the CALFED Science Conference in October 2000.
- Larsen, C.T., F.W. Pierson, and W.B. Gross. 1977. Effect of dietary selenium on the response of stressed and unstressed chickens to *Escherichia coli* challenge and antigen. *Biol. Trace Elem. Res.*, 58:169-176.
- Lemly, A.D. 1996a. Assessing the toxic threat of selenium to fish and aquatic birds. *Environ. Monit. Assess.*, 43:19-35.
- Lemly, A.D. 1996b. Selenium in aquatic organisms. Pp.427-445 in: W.N. Beyer, G.H. Heinz, and A.W. Redmon, (eds.), *Interpreting Environmental Contaminants in Animal Tissues*. Lewis Publishers, Boca Raton, Florida
- Lemly, A.D. 1997a. A Teratogenic Deformity Index for Evaluating Impacts of Selenium on Fish Populations. *Ecotoxicol. Environ. Safety*, 37:259-266.
- Lemly, A.D. 1997b. Ecosystem Recovery Following Selenium Contamination in a Freshwater Reservoir. *Ecotoxicol. Environ. Safety*, 36:275-281.
- Lemly, A.D. 1997c. Environmental Hazard of Selenium in the Animas La Plata Water Development Project. *Ecotoxicol. Environ. Safety*, 37:92-96.
- Luoma, S.N. and T.S. Presser. 2000. Forecasting Selenium Discharges to the San Francisco Bay-Delta Estuary: Ecological Effects of a Proposed San Luis drain Extension. U.S. Geological Survey Open File Report 00-416, Menlo Park, California.
- Mayer, M.S., P.S. Soltis, and D.E. Soltis. 1994. The evolution of the *Streptanthus glandulosus* complex (Cruciferae): Genetic divergence and gene flow in serpentine endemics. *Am. J. of Botany* 81: 1288-1299.

- McCarten, N.F. 1992. Petition to the State of California Fish and Game Commission: *Streptanthus albidus* ssp. *albidus*.
- McCarten, N.F. 1993. Petition to the State of California Fish and Game Commission: *Dudleya setchellii*.
- Moyle, P.B., R.D. Baxter, T. Sommer, T.C. Foin, and R.R. Abbott. 2001. In prep. Sacramento Splittail White Paper. Presented in Draft Form at the January 29, 2001, CALFED Splittail Science Conference. 42 pp.
- Murphy, D.D. 1988. The Kirby Canyon conservation agreement: a model for the resolution of land-use conflicts involving threatened invertebrates. *Environmental Conservation* 15: 45-48.
- Murphy, D.D. and S.B. Weiss. 1988. Ecological studies and the conservation of the bay checkerspot butterfly, *Euphydryas editha bayensis*. *Biol. Conserv.* 46: 183-200.
- (NRC) National Research Council. 1980. Mineral Tolerance of Domestic Animals. Committee on Animal Nutrition, NRC. National Academy of Sciences, Washington, DC.
- (NRC) National Research Council. 1984. Nutrient Requirements of Poultry. Eighth Revised Edition. Committee on Animal Nutrition, NRC. National Academy of Sciences, Washington, DC.
- (NRC) National Research Council. 1989. Irrigation-Induced Water Quality Problems: What Can Be Learned From the San Joaquin Valley Experience. Committee on Irrigation-Induced Water Quality Problems, Water Science and Technology Board, Commission on Physical Sciences, Mathematics, and Resources, NRC. National Academy Press, Washington, DC.
- Porter, K.R. 1972. Herpetology. W.B. Saunders Co., Philadelphia. 524 p.
- Presser, T. S. August 2001. Case Study Request from Federal Agencies: Monthly Forecasts for Selenium Concentrations in a Dry Year (1994) using Bay-Delta Selenium Model. U.S. Geological Survey, Menlo Park, California.
- Romer, A.S. 1966. Vertebrate Paleontology, 3rd ed. University of Chicago Press, Chicago. 468 p.
- Saiki, M.K., and D.U. Palawski. 1990. Selenium and other elements in juvenile striped bass from the San Joaquin Valley and San Francisco Estuary, California. *Arch. Environ. Contam. Toxicol.*, 19:717-730.
- Schneeweiss, N and U Schneeweiss. 1997. Mortality of amphibians as a consequence of mineral fertilization. *Salamandaria* 33:1-8

- Skinner, M.W. and B.M. Pavlid. 1994. California Native Plant Society inventory of rare and endangered plants of California. 5<sup>th</sup> edition. Special Publication No. 1. California Native Plant Society. Sacramento, California, 338 pp.
- (SJVDP) San Joaquin Valley Drainage Program. 1990. A Management Plan for Agricultural Subsurface Drainage and Related Problems on the Westside San Joaquin Valley. Final Report of the San Joaquin Valley Drainage Program, Sacramento, California, 183pp.
- Skorupa, J.P. 1998. Selenium poisoning of fish and wildlife in nature: Lessons from twelve real-world examples. Pp. 315-354 in: W.T. Frankenberger, Jr., and R.A. Engberg (eds.), *Environmental Chemistry of Selenium*. Marcel Dekker, New York, New York.
- Skorupa, J.P., S.P. Morman, and J.S. Sefchick-Edwards. 1996. Guidelines for interpreting selenium exposures of biota associated with nonmarine aquatic habitats. Report to U.S. Department of Interior, National Irrigation Water Quality Program. U.S. Fish and Wildlife Service, Division of Environmental Contaminants, Sacramento, California. 74 p.
- Slotton, D. G., T.H. Suchanek, and S.M. Ayers. 2000. CALFED-UC Davis Delta Mercury Study: Year 2 Findings. In CALFED Bay-Delta Program Science Conference 2000. Data presented at the CALFED Science Conference in October 2000.
- Stewart, A.R., S.N. Luoma, M. Doblin, K. Hieb, and K. Miles. 2000. Bioaccumulation of selenium in the food web of San Francisco Bay: importance of feeding relationships. In CALFED Bay-Delta Program Science Conference 2000. Data presented at the CALFED Science Conference in October 2000.
- Storer, T.I., R.L. Usinger, R.C. Stebbins, and J.W. Nybakken. 1972. General Zoology, 5th ed. McGraw-Hill Inc., New York. 899 p.
- Swaim, K. E. 1994. Aspects of the ecology of the Alameda whipsnake (*Masticophis lateralis euryxanthus*). M.S. Thesis. California State University, Hayward. 140 pp.
- Thomas Reid Associates, and D.D. Murphy. 1992. Kirby Canyon Landfill conservation plan 1992 monitoring report. Prepared for Kirby Canyon Conservation Trustees, December 29, 1992. Unpublished.
- Thomas Reid Associates, and D.D. Murphy. 1995. Kirby Canyon Landfill conservation plan 1995 monitoring report. Prepared for Kirby Canyon Conservation Trustees, December 7, 1995. Unpublished.
- Tully, W.C., and K.W. Franke. 1935. A new toxicant occurring naturally in certain samples of plant foodstuffs. VI. A study of the effect of affected grains on growing chicks. *Poult. Sci.*, 14:280-284.

- Twedt, B. 1993. A comparative ecology of *Rana aurora* Baird and Girard and *Rana catesbeiana* Shaw at Freshwater Lagoon, Humboldt County, California. M.S. Thesis. Humboldt State University, Arcata. 53pp + appendix.
- (USDI-BOR) U.S. Bureau of Reclamation. 2001a. Biological Assessment, Central Valley Project Improvement Act, Long-Term Refuge Water Supply Water Service Agreement for the San Joaquin River Basin Federal Wildlife Refuges, State Wildlife Areas and Grasslands Resource Conservation District, Merced and Fresno Counties, California. February 2001.
- (USDI-BOR) U. S. Bureau of Reclamation. 2001b. Grassland Bypass Project Final Environmental Impact Statement /Environmental Impact Report. May 25, 2001.
- (USDI-BOR) U.S. Bureau of Reclamation. 2003a. Supplemental Information on Interim Renewal Contracts. Attachments to the request for formal consultation dated November 6, 2003.
- (USDI-BOR) U.S. Bureau of Reclamation. 2003b. Draft Finding of No Significant Impact for the 2004 Renewal of Interim Water Service Contracts through February 28, 2006.
- (USDI-BOR/FWS) 2003. CVPLA Work Plans for Fiscal Year 2003 and 2004. Undated.
- (USDI-BOR/FWS/GS/BIA) United States Department of the Interior - Bureau of Reclamation/Fish and Wildlife Service/Geological Survey/Bureau of Indian Affairs. 1998. Guidelines for Interpretation of the Biological Effects of Selected Constituents in Biota, Water, and Sediment. National Irrigation Water Quality Program Information Report No. 3. Bureau of Reclamation, Denver, Colorado. 198 p.
- (USFWS) U.S. Fish & Wildlife Service. 1984. Valley elderberry longhorn beetle recovery plan. Portland, Oregon
- (USFWS) U.S. Fish and Wildlife Service. 1995. Endangered and threatened wildlife and plants: review of plant taxa for listing as endangered or threatened species. Federal Register 58 (188): 51144-51190.
- (USFWS) U.S. Fish and Wildlife Service. 1996. Sacramento-San Joaquin Delta Native Fishes Recovery Plan. U.S. Fish and Wildlife Service, Portland, Oregon.
- (USFWS) U.S. Fish and Wildlife Service. 1997. Large-flowered Fiddleneck (*Amsinckia grandiflora*) Recovery Plan. Portland, Oregon. 45pp.
- (USFWS) U.S. Fish and Wildlife Service. 1998. Recovery Plan for the Least Bells Vireo *Vireo bellii pusillus*. Portland, Oregon.
- (USFWS) U.S. Fish and Wildlife Service. 1998. Recovery Plan for serpentine soil species of the San Francisco Bay Area. Portland, Oregon. 330+ pp.

- (USFWS) U.S. Fish and Wildlife Service. 1998. Recovery Plan for Upland Species of the San Joaquin Valley, California. Region 1, Portland, Oregon. 319 pp.
- (USFWS) U.S. Fish and Wildlife Service. 1998. Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area. U.S. Fish and Wildlife Service, Portland, Oregon. 330+ pp.
- (USFWS) U.S. Fish and Wildlife Service. 1999. Draft Recovery Plan for the Giant Garter Snake (*Thamnopsis gigas*). U.S. Fish and Wildlife Service, Portland, Oregon. 192+ pp.
- (USFWS) U.S. Fish and Wildlife Service. 2002. Recovery Plan for the California red-legged frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon. 258 pp.
- (USFWS) U.S. Fish and Wildlife Service. 2002. Recovery Plan for Gabbro Soil Plants of the Central Sierra Nevada Foothills. Portland, Oregon. Xiii+220 pp
- (USFWS) U.S. Fish and Wildlife Service. 2003. Endangered and Threatened Wildlife and Plants; Notice of Remanded Determination of Status for the Sacramento splittail (*Pogonichthys macrolepidotus*). Federal Register 68:55140-55166.
- (USFWS) U.S. Fish and Wildlife Service. 2003. Endangered and Threatened Wildlife and Plants; Listing of the Central California Distinct Population Segment of the California Tiger Salamander; Proposed Rule. Federal Register 68:28648 - 28670
- (USFWS) U.S. Fish and Wildlife Service. 2003. Endangered and Threatened Wildlife and Plants; Removing *Eriastrum hooveri* (Hoover's woolly-star) from the Federal List of Endangered and Threatened Species. Federal Register 68: 57289-57837.
- (USFWS) U.S. Fish and Wildlife Service. 2003. Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants in California and Southern Oregon; Final Rule. Federal Register 68: 466684
- (USFWS and NMFS) U.S. Fish and Wildlife Service and National Marine Fisheries Service. 2000. Formal Section 7 Consultation on the Environmental Protection Agency's Final Rule for the Promulgation of Water Quality Standards: Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California. U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, File No. 1-1-98-F-21, Sacramento, California.
- Wang, C., R.T. Lovell, and P.H. Klesius. 1997. Response to *Edwardsiella ictaluri* challenge by channel catfish fed organic and inorganic sources of selenium. *J. Aq. Anim. Health*, 9:172-179.

- Weiss, S.B. 1996. Weather, landscape structure, and the population ecology of a threatened butterfly, *Euphydryas editha bayensis*. Ph.D. dissertation, Stanford University, Stanford, California. 119 pp.
- Weiss, S.B. 1999. Cars, cows, and checkerspot butterflies: nitrogen deposition and management of nutrient-poor grasslands for a threatened species. *Conservation Biology* 13:1476-1486.
- Whiteley, P.L., and T.M. Yuill. 1989. Immune function and disease resistance of waterfowl using evaporation pond systems in the southern San Joaquin Valley, California, 1986-89. Final Report to the U.S. Fish and Wildlife Service, National Wildlife Health Research Center, Madison, Wisconsin. 202 p.
- Wylie, G.D. 1998. Results of the 1998 Survey for Giant Garter Snakes in and around the Grasslands Area of the San Joaquin Valley. Unpublished Report, U.S. Geological Survey-Biological Research Division, Western Ecological Research Center, Dixon Field Station, 2pp. and attachments.
- Wylie, G. D., M. Cassaza, and J. K. Daugherty. 1997. 1996 Progress report for the giant garter snake study. Preliminary report, USGS, Biological Resources Division.

#### **Personal/Written Communications**

- R. Baxter, Personal Communication. California Department of Fish and Game, Sacramento, California.
- W. Beckon. Personal Communication and unpublished data. August 2001. U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Environmental Contaminants Division.
- N. Bicknese, Personal Communication, 2003. U.S. Bureau of Reclamation.
- Bittman, Roxanne. Personal Communication. 1993. Natural Diversity Database, Sacramento, California (Department) California Department of Fish and Game, unpublished data, 1999, Stockton, California.
- R. Eckart, Personal Communication, February 19, 2002. U.S. Bureau of Reclamation, Mid-Pacific Region, Sacramento, California.
- Freas, K. 1993. Letter to Field Supervisor, U.S. Fish and Wildlife Service, Sacramento, California. 2 pp.
- Mayall, D. 1999. Letter with attached map to U.S. Fish and Wildlife Service, Sacramento, re. *Castilleja affinis* ssp. *neglecta* on Coyote Ridge, Santa Clara County. California Native Plant Society, August 25, 1999. 1 p.

- Mayall, D. 2001. Electronic mail to David Wright, U.S. Fish and Wildlife Service, Sacramento, California.
- Mayer, M. 1998. Letter to Wayne White, U.S. Fish and Wildlife Service, Sacramento, California. 1p.
- McCarten, N. 1998. Letter to Wayne White, U.S. Fish and Wildlife Service, Sacramento, California 5 pp. and attachments.
- McGahan, J.C. Revised June 21, 2001. High Selenium Concentrations in the Grasslands Channels above the 2 ppb Water Quality Objective. Memorandum to Central Valley Regional Water Quality Control Board from Summers Engineering, Hanford, California, 2pp.
- Michny, F. February 20, 2002 U.S. Bureau of Reclamation response to Service request to add conservation measures to the project description of the Interim Renewal Contract ESA consultation. Memo from Regional Environmental Officer, U.S. Bureau of Reclamation to Deputy Assistant Field Supervisor, U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Sacramento California, 3 pp.
- Presser, T.S. February 26, 2001. Comments on Draft Environmental Impact Statement/Environmental Impact Report for the 9-year renewal of the Grassland Bypass Project. Memorandum from U.S. Geological Survey to the Bureau of Reclamation and Summers Engineering.
- Schmidt, C. 1996. Letter to Diane Elam, U.S. Fish and Wildlife Service, Sacramento, California. 2 pp.
- Schmidt, C. 1998. Letter to Wayne White, U.S. Fish and Wildlife Service, Sacramento, California. 3 pp.
- Weiss, S.B. 2000. Letter to Cecilia Brown, U.S. Fish and Wildlife Service, Sacramento, California. 3 pp.
- White, Raymond. June 2001. City College of San Francisco, San Francisco, California.
- USDI-BOR. Dec 2001. Memo to Service submitting supplemental information for use in the Interim Contract Consultation. Memo from Regional Environmental Officer, U.S. Bureau of Reclamation to Field Supervisor, U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Sacramento, California, 2pp. and 8 related attachments.
- USDI-BOR, unpublished data, 2000. U.S. Bureau of Reclamation, Mid-Pacific Region, Sacramento, California.
- K. Wood. Personal Communication, 2003. U.S. Bureau of Reclamation.

**APPENDIX A**

**List of CVP WATER SERVICE CONTRACTS Requiring an  
INTERIM RENEWAL CONTRACT between MARCH 1, 2004 and FEBRUARY 28, 2006**

<b>CVP CONTRACTOR</b>	<b>Proposed 2004 Contract No.</b>	<b>Existing Contract Expiration Date</b>	<b>Water Quantity (A/F)</b>
<b>AMERICAN RIVER DIVISION</b>			
<b>FOLSOM LAKE:</b>			
<b>El Dorado ID*</b>	14-06-200-1357A	12/31/2004	7,500
El Dorado ID--Lake Hills Estates	14-06-200-7312-IR7	2/29/2004	50
San Juan WD	14-06-200-152A-IR8	2/29/2004	11,200
<b>SLY PARK UNIT:</b>			
El Dorado ID (transferring title to EID, but will include in consultation)	14-06-200-949-IR8	2/29/2004	23,000
<b>DELTA DIVISION</b>			
<b>DELTA-MENDOTA CANAL:</b>			
Banta-Carbona ID	14-06-200-4305A-IR8-A	2/29/2004	20,000
Broadview WD	14-06-200-8092-IR8	2/29/2004	27,000
Centinella WD	7-07-20-W0055-IR8	2/29/2004	2,500
Coelho Family Trust (formerly Traction Ranch)*	14-06-200-7859A-IR2	12/31/2003	2,080
Del Puerto WD, (Davis WD, Foothill WD, Hospital WD, Kern Canon WD, Mustang WD, Orestimba WD, Qunito WD, Romero WD, Salado WD, & Sunflower WD combined with Del Puerto WD)	14-06-200-922-IR10	2/29/2004	140,210
Eagle Field WD	14-06-200-7754-IR8	2/29/2004	4,550
Fresno Slough WD*	14-06-200-4019A-IR2	12/23/2003	4,000
James ID*	14-06-200-700-A-IR2	12/23/2003	35,300
Laguna WD	2-07-20-W0266-IR8	2/29/2004	800
Mercy Springs WD	14-06-200-3365A-IR8-A	2/29/2004	2,842
Pajaro Valley, WMA, Santa Clara Valley WD, & Westlands WD Distr. District # 1	14-06-200-3365A-IR8-B	2/29/2004	6,260
Westlands WD Distr. District # 2*	14-06-200-3365A-IR8-C assignment from Mercy Springs WD	2/29/2004	4,198
Oro Loma WD	14-06-200-7823-IR8	2/29/2004	4,600
Patterson ID	14-06-200-3598A-IR8	2/29/2004	16,500
Plain View WD	14-06-200-785-IR10	2/29/2004	20,600
Reclamation District 1606*	14-06-200-3802A-IR2	12/23/2003	228
The West Side ID	7-07-20-W0045-IR8-A	2/29/2004	5,000
Tracy, City of *	14-06-200-4305A-IR8-B partial assign. from Banta Carbona ID	2/29/2004	5,000
Tracy, City of *	7-07-20-W0045-IR8-B partial assign. from The West Side ID	2/29/2004	2,500
Tranquillity ID*	14-06-200-701-A-IR2	12/23/2003	13,800
Tranquillity PUD (formerly Hughes, Melvin)*	14-06-200-3537A-IR2	12/23/2003	70
US Department of Veterans Affairs San Joaquin National Cemetery)*	3-07-20-W1124-IR1	2/29/2004	450
West Stanislaus ID	14-06-200-1072-IR10	2/29/2004	50,000
Widren WD	14-06-200-8018-IR8	2/29/2004	2,990
<b>FRIANT DIVISION</b>			
<b>FRIANT-KERN CANAL:</b>			
Lewis Creek WD- (did not renew but will include in consultation)	14-06-200-1911A-IR2	2/29/2000	1,450
<b>SACRAMENTO RIVER DIVISION</b>			
<b>CORNING CANAL:</b>			
Corning WD	14-06-200-6575-IR8	2/29/2004	23,000
Proberta WD	14-06-200-7311-IR8	2/29/2004	3,500
Thomes Creek WD	14-06-200-5271A-IR8	2/29/2004	6,400

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**List of CVP WATER SERVICE CONTRACTS Requiring an  
INTERIM RENEWAL CONTRACT between MARCH 1, 2004 and FEBRUARY 28, 2006**

<b>CVP CONTRACTOR</b>	<b>Proposed 2004 Contract No.</b>	<b>Existing Contract Expiration Date</b>	<b>Water Quantity (A/F)</b>
<b>TEHAMA-COLUSA CANAL:</b>			
Colusa County WD	14-06-200-304-A-IR8	2/29/2004	62,200
Colusa, County of	14-06-200-8310A-IR8	2/29/2004	60,000
Subs: Colusa County WD, Cortina WD, 4-M WD, Glenn Valley WD, Holthouse WD, La Grande WD, Myers-Marsh MWC)			
Davis WD	14-06-200-6001A-IR8	2/29/2004	4,000
Dunnigan WD	14-06-200-399A-IR8	2/29/2004	19,000
Glide WD	7-07-20-W0040-IR8	2/29/2004	10,500
Kanawha WD	14-06-200-466-A-IR8	2/29/2004	45,000
Kirkwood WD	7-07-20-W0056-IR8	2/29/2004	2,100
La Grande WD	7-07-20-W0022-IR8	2/29/2004	5,000
Orland-Artois WD	14-06-200-8382A-IR8	2/29/2004	53,000
Westside WD	14-06-200-8222-IR8	2/29/2004	25,000
Westside WD*	14-06-200-8310X-IR2 assignment from County of Colusa	2/29/2004	40,000
<b>FEATHER RIVER :</b>			
Feather WD	14-06-200-171A-IR9	2/29/2004	20,000
<b>SHASTA DIVISION</b>			
Shasta Lake, City of	4-07-20-W1134-IR10	2/29/2004	4,400
Mountain Gate CSD*	14-06-200-6998-IR2	2/29/2004	350
Shasta County WA*	14-06-200-3367A	12/31/2004	5,000
<b>TRINITY RIVER DIVISION</b>			
Bella Vista WD	14-06-200-851A-IR9	2/29/2004	24,000
Clear Creek CSD	14-06-200-489-A-IR9	2/29/2004	15,300
Shasta CSD*	14-06-200-862A-IR2	12/31/2003	1,000
<b>MISCELLANEOUS</b>			
<b>COLUSA BASIN DRAIN:</b>			
Colusa Drain MWC (New Contract - 1988)*	8-07-20-W0693	12/31/2004	100,000
<b>CROSS VALLEY CANAL:</b>			
Fresno, County of	14-06-200-8292A-IR8	2/29/2004	3,000
Hills Valley ID-Amendatory	14-06-200-8466A-IR8	2/29/2004	3,346
Kern-Tulare WD	14-06-200-8601A-IR8	2/29/2004	40,000
Lower Tule River ID	14-06-200-8237A-IR8	2/29/2004	31,102
Pixley ID	14-06-200-8238A-IR8	2/29/2004	31,102
Rag Gulch WD	14-06-200-8367A-IR8	2/29/2004	13,300
Tri-Valley WD	14-06-200-8565A-IR8	2/29/2004	1,142
Tulare, County of	14-06-200-8293A-IR8	2/29/2004	5,308
*new IRC, was not included in February 28, 2002 consultation (Re: 1-I-02-I-1704)			



## **APPENDIX I**

### **NOAA FISHERIES, NATIONAL MARINE FISHERIES SERVICE**

### **CONCURRENCE LETTER ON 2004 RENEWAL OF INTERIM WATER SERVICE CONTRACTS**



**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

February 27, 2004

In Reply Refer To:  
SWR-00-SA-5945:BFO

Mr. Frank Michny  
Regional Environmental Officer  
U.S. Bureau of Reclamation  
Mid-Pacific Regional Office  
2800 Cottage Way  
Sacramento, California 95825-1898

BUREAU OF RECLAMATION OFFICIAL TELETYPE RECEIVED		
MAR 2 2004		
CODE	ACTION	SUBJECT
EA	3/2	150

Dear Mr. Michny:

This is in response to your letter of November 14, 2003 requesting National Marine Fisheries Service's (NOAA Fisheries) concurrence on renewal of 53 water service contracts within the Central Valley Project (CVP) for an interim two-year period from March 1, 2004 through February 28, 2006. These new interim contracts are similar to the 42 interim contracts renewed in 2002 and contain provisions described in current biological opinions (i.e. 1993 winter-run opinion [WRO], as amended, and the interim steelhead/spring-run opinion [CVP-operations, criteria and plan OCAP] issued September 20, 2002) addressing CVP and State Water Project (SWP) operations.

On December 22, 2003, NOAA Fisheries issued a letter of non-concurrence on the proposed contract renewals. This was based on the fact that interim steelhead/spring-run CVP-OCAP opinion existing at the time would expire on March 31, 2004, therefore, it would not cover interim contract renewals for the next two years. Since that time, the Bureau of Reclamation (Reclamation) has requested an extension of the CVP-OCAP steelhead/spring-run opinion (See Reclamation letter MP-440, WTR-4.00, dated September 22, 2003, requesting a two-year extension from April 1, 2004 to April 1, 2006, for spring-run Chinook salmon and Central Valley steelhead.).

NOAA Fisheries has reviewed the information provided by Reclamation (letter dated December 24, 2003, MP-150, ENV-7.00) and by FAX dated January 21, 2004 concerning contract amounts, unscreened diversions, and estimates of fish losses as requested in NOAA Fisheries's non-concurrence letter (December 22, 2003). A supplemental steelhead/spring-run CVP-OCAP biological opinion, has been issued by NOAA Fisheries on February 27, 2004, which covers the continuation of project operations and the effects of interim contract renewals until March 31, 2006. The existing WRO as amended, covers CVP long-term contracts for the time period

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requested. Based on the steelhead/spring-run CVP OCAP opinion covering project operations for the next two years, NOAA Fisheries can now concur with Reclamation's determination of not likely to adversely affect for the proposed interim contract renewals.

This determination is based upon the following factors:

- 1) Contract amounts are limited to established needs or existing contract amount, whichever is less. There will be no increase in total deliveries.
- 2) The contracts contain shortage provisions that allow for reduction of deliveries for various reasons, including the need for the CVP operations to be modified to meet requirements for listed species.
- 3) There are existing biological opinions that address the effects of the operation of the CVP and SWP on the winter-run and spring-run Chinook salmon, and steelhead. In addition, Reclamation is presently in consultation with NOAA Fisheries to develop a new biological opinion addressing the long-term operation of the CVP and SWP to replace the existing interim OCAP opinion. Reclamation has also consulted on the effects of the operation of the Trinity Division on coho salmon (see NOAA Fisheries biological opinion for Trinity River Mainstem Fishery Restoration issued October 12, 2000).
- 4) The hydrologic operations of the CVP are, and will continue to be, operated in compliance with existing, amended, or new biological opinions that address the effects of the operation of the CVP on listed species. A letter dated October 29, 1999, was provided to NOAA Fisheries to confirm this commitment.
- 5) Reclamation is committed to engaging NOAA Fisheries as part of the Central Valley Project Improvement Act (CVPIA) - (b)(2) Interagency Team, to provide recommendations on how to best dedicate and manage 800,000 acre-feet of CVP yield and approximately 300,000 acre-feet of CALFED environmental water.
- 6) The proposed action is tiered from the CVPIA Programmatic Environmental Impact Statement (PEIS) and was considered within, and is consistent with the programmatic biological opinion that NOAA Fisheries developed.
- 7) The Cross Valley Canal (CVC) and Friant contracts have an existing biological opinion (issued January 20, 2001) addressing long-term contract renewal. Any water delivered to the CVC contractors will comply with the requirements of that biological opinion during the term of the proposed interim renewal contracts.

NOAA Fisheries agrees with Reclamation that the existing biological opinion for winter-run Chinook salmon covers the effects of the CVP operations for the next two years and will be re-analyzed for the long-term CVP-OCAP. Therefore, no effects for winter-run Chinook need to be included in the supplemental biological opinion just issued, however, the biological opinion for Cross Valley Canal and Friant contracts does not have incidental take authorization. As a result, these contract renewals will need to be addressed in the project description for the long-term CVP-OCAP opinion.

If you have any questions regarding this correspondence, please contact Mr. Bruce Oppenheim in the Sacramento Area Office, 650 Capitol Mall, Suite 8-300, Sacramento, CA 95814. Bruce may be reached by telephone at (916) 930-3603, or by Fax at (916) 930-3629.

Sincerely,



*for* Rodney R. McInnis  
Acting Regional Administrator

cc: NMFS-PRD, Long Beach, CA  
Irma Lagomarsino, NMFS, Arcata, CA

