



United States Department of the Interior



FISH AND WILDLIFE SERVICE  
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In reply refer to:  
I-1-04-1-0707

15 February 2005

Memorandum

To: Chief, Resources Management Division, Bureau of Reclamation, South-Central California Area Office

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

Subject: Conclusion of Consultation on Long Term Renewal of Water Service Contracts in the Delta-Mendota Canal Unit

This memorandum is in response to your July 15, 2003 memorandum requesting formal consultation on the proposed long term renewal of Central Valley Project water service contracts for 20 of 21 individual water districts in the Delta Mendota Canal Unit (DMC Unit) of the South Central California Area Office. Clarification and additional information concerning historic activities was requested, and on April 20, 2004 the U.S. Fish and Wildlife Service (Service) determined that sufficient information had been received. This response has been prepared in accordance with the Endangered Species Act of 1973, as amended and is in accordance with section 3404(c) of the Central Valley Project Improvement Act (CVPIA) and our November 2000 Programmatic Biological Opinion on Implementation of the CVPIA and Continued Operation and Maintenance of the CVP (Service File No. I-1-98-F-0124).

We did not review renewal of the contract for the City of Tracy because Reclamation and the City have not completed negotiations on a new long term contract. Renewal of the contract for the City of Tracy will be evaluated upon completion of the negotiations between the City and Reclamation. In a memorandum dated January 14, 2005, Reclamation requested concurrence in their determination that the renewal of the long-term water service contract for the San Joaquin National Cemetery administered by the U.S. Department of Veterans Affairs is not likely to adversely affect listed threatened or endangered species. Our review of the long term contract for the San Joaquin National Cemetery is included in this memorandum.

This consultation addresses the renewal of the existing contract amount and the continued delivery of water under the existing operating parameters to the DMC Unit water service areas. With the exception of the San Joaquin National Cemetery, all contracts reviewed in this consultation will be renewed for a period of 25 years. The San Joaquin National Cemetery

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contract will be renewed for a period of 40 years. This consultation does not exempt private parties from the prohibitions of section 9 of the Act for incidental take that may result from the use or application of CVP water.

We have reviewed the information provided in your April 13, 2003 letter, the accompanying Biological Assessments for long-term contract renewals provided for the water districts (WD's) in the Delta-Mendota Canal Unit (DMC Unit) dated July 15, 2003, supplemental information provided by your office and by the U.S. Bureau of Reclamation (Reclamation) Mid-Pacific Region, including GIS data, the Environmental Assessment for long-term contract renewals provided for the Delta-Mendota Canal Unit (dated November 2004), information gathered during site visits, and other information available to us, and determined that the proposed renewal of long term water service contracts is not likely to adversely affect San Joaquin kit fox (*Vulpes macrotis nutica*), giant garter snake (*Thamnophis gigas*), riparian brush rabbit (*Sylvilagus bachmani riparius*), riparian wood rat (*Neotoma fuscipes riparia*), palmate-bracted bird's beak (*Cordylanthus palmatus*), and the California red-legged frog (*Rana aurora draytonii*), or proposed or designated critical habitat, in the following water districts:

Broadview Water District	Cochlo Family Trust
Eagle Field Water District	Reclamation District #1606
Fresno Slough Water District	West Stanislaus Irrigation District
James Irrigation District	Patterson Irrigation District
Laguna Water District	Centinella Water District
Tranquillity Public Utility District (Mardella/Melvin Hughes Property)	San Joaquin National Cemetery
	Del Puerto Water District
Mercy Springs Water District (unassigned portion)	The West Side Irrigation District
Oro Loma Water District	Banta Carbona Irrigation District
Tranquillity Irrigation District	Byron/Bethany Water District (Plain View Water District)
Widren Water District	

The Service withdrew its proposal to list the mountain plover (*Eupoda montana*) as a threatened species on September 9, 2003 (68 FR 53083). As a result, it was not considered in this consultation. No designated or proposed critical habitat is present in the action area (excepting that analyzed in the OCAP biological opinion), therefore none shall be affected.

This consultation is based on (1) the Draft Biological Assessment, dated July 14, 2003; (2) Central Valley Habitat Monitoring Program and other digital spatial data provided by Reclamation or otherwise available to us; (3) conversations and meetings with Reclamation staff at the Mid-Pacific Regional Office and the South-Central Area Office; and (4) other information available to us.

### Description of the Proposed Action

Reclamation has delivered CVP water through the Delta-Mendota Canal to the DMC Unit under long term contracts since the early 1950s and 1960s. Reclamation proposes renewal of existing water service and repayment contracts for 20 DMC Unit contractors for a period of 25 years, with the exception of the San Joaquin Cemetery contract, which will be renewed for 40 years, in amounts shown below:

**Table 1**

#### DMC Unit Contractors: District Acreages and Contract Quantities

District	1995 District Size (acres)	2000 District Size (acres)	Total Contract Quantity (acre- feet)
Banta-Carbona Irrigation District	18,225.30	16,272	5,000
Broadview Water District	9,704.90	9,705.00	27,000
Byron Bethany Water District (Plain View)	7,007.22	7,145.23	20,600
Centinella Water District	879.20	879.26	2,500
Cochlo Family Trust	3,499.77	3,499.77	3,525
Del Puerto Water District	51,432.00	54,673.37	140,210
Eagle Field Water District	1,438.10	1,438.10	4,550
Fresno Slough Water District	NA	1,316.38	4,000
James Irrigation District	26,209.80	26,394.00	35,300
Laguna Water District	429.80	462.14	800
Mercy Springs Water District	3,589.00	3,589.11	2,842
Oro Loma Water District	1,095.50	1,095.57	4,600
Patterson Irrigation District	13,857.60	13,543.15	16,500
Reclamation District 1606	NA	360.14	228
San Joaquin National Cemetery	NA	NA	850

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The West Side Irrigation District	8,565.9	6,981.16	7,500
Tranquillity Irrigation District	10,592.30	10,596.31	13,800
Tranquillity Public Utility District (Mardella Hughes Property)	NA	129.05	70
West Stanislaus Water District	22,503.00	22,503.42	50,000
Widren Water District	881.10	881.10	2,990
NA = Not available			

Under this action, water would continue to be delivered to CVP contractors through existing facilities. The action does not require the construction of new facilities, installation of new structures, or modification of existing facilities. The Environmental Baseline for this action includes the commitments made under the Biological Opinion on Implementation of the CVPIA and Continued Operation and Maintenance of the CVP.

#### Historic Water Use and Future Water Needs

The CVP provides a supplemental water supply to its contractors, meaning that it is used together with other supplies. The CVP supply, together with groundwater and other surface water sources, is used to determine the water demand for irrigated crops and any M&I use within each district. Reclamation delivers full contract amounts, when available, but there has been decreased reliability and availability of supply in many years since 1987. In recent years the decreased reliability and availability of supply have resulted in DMC Unit contractors frequently receiving less than 100 percent of their CVP contract amounts. Reclamation accomplishes reductions in annual deliveries under contract shortage provisions.

Fresno Slough Water District, James Irrigation District, and Tranquillity Irrigation District are the only DMC Unit contractors that own the groundwater wells used to produce their water supplies. All other groundwater wells are owned by landowners. In general, DMC Unit contractors do not use CVP water in intentional groundwater recharge programs within their service areas. Instead, CVP water is described as "supplemental" to local water supply, which is primarily groundwater. In light of short water supplies, the cost of pumping, limited availability of good quality groundwater, and, in some areas, the existence of high, poor-quality groundwater tables, DMC Unit contractors have focused their water conservation plans on the capture and reuse of field runoff through surface water return systems and on the curtailment of excess deep percolation, rather than on applying water for recharge.

Those plans include an obligation to adopt groundwater management plans. Long term DMC Unit contracts require the Contracting Officer to consent to the use of a contractor's water outside its boundaries. Various programs in place throughout the DMC Unit regulate the pumping and use of groundwater within the DMC Unit districts. These programs include (a) groundwater pumping ordinances in San Joaquin and Fresno Counties that control transfer of pumped groundwater outside the county; (b) San Luis and Delta-Mendota Water Authority Groundwater Management Activity Agreement; (c) San Luis and Delta Mendota Authority

Northern Delta-Mendota Canal Assembly Bill 3030 Plan Activity Agreement; (d) San Luis and Delta Mendota Authority Southern Delta-Mendota Canal Assembly Bill 3030 Plan Activity Agreement; (e) "Westside Regional Drainage Plan". These programs are described in the biological assessment.

Historically, approximately 90 percent of CVP water has been delivered to agricultural users. In recent years, the use of CVP water for M&I purposes has increased as a result of the expansion of urban areas, changes in water contracts allowing a conversion from agricultural to M&I uses, and the facilitation of water transfers by the Central Valley Project Improvement Act.

The potential future conversion of existing open space, even within an agricultural setting, to roads, residential, and commercial uses, and the effects of such conversion on the conservation needs of the kit fox and the giant garter snake, is the effect of greatest concern in our review of these contract renewals. Although Reclamation has no land use authority or jurisdiction within water districts, water in the renewed contracts can be used for municipal and industrial (M&I) as well as for agricultural purposes. For water districts that have historically used their CVP supply for agricultural purposes, such as water districts of the DMC Unit, we would view future use of such water for M&I purposes as a causal agent of land use change that could adversely affect the giant garter snake and the San Joaquin kit fox.

As part of the contract renewal process, Reclamation has performed water needs assessments for each long term CVP contractor. The methodology employed by Reclamation to develop the needs analysis is explained in the biological assessment. Most of the DMC Unit contracts do not project future M&I use in their water needs assessments. Those that do include Tranquillity Irrigation District, which includes the community of Tranquillity, and the Byron/Bethany (Plain View) Water District, which have overlapping boundaries in some instances with the City of Tracy and has entered into arrangements for the City of Tracy to treat and deliver some of the district's M&I water to areas within the district's boundaries.

With the exceptions in San Joaquin County discussed below, we do not anticipate that CVP water delivered in accordance with renewed DMC Unit contracts will facilitate conversion of agricultural lands to residential and commercial uses that potentially could result in adverse effects to listed species for the following reasons. The water needs assessment for the Tranquillity Irrigation District indicates that the demand for M&I water will increase from 300 ac/ft to 324 ac/ft by the year 2025, while the projected contract amount for agricultural uses increases from 7,825 ac/ft back to the full contract amount of 13,800 ac/ft with the expiration of an existing transfer/exchange agreement. Thus we do not anticipate significant land use changes in Tranquillity ID as a result of substantial increase in their future need for an M&I water supply when compared to their current M&I use.

Additionally, as noted in the July 2003 Biological Assessment for the DMC Unit, it is the present policy of most of these districts to remain entirely agricultural districts and to require an area currently within the district to detach from the district, if the land is to be converted from irrigated land to an M&I purpose of use of CVP water. The only exception is the Byron/Bethany

(Plain View) Water District, which has overlapping boundaries in some instances with the City of Tracy and has entered into arrangements for the City of Tracy to treat and deliver some of the district's M&I water to areas within the district's boundaries. Any of the DMC Unit contractors that propose to use CVP water for M&I, rather than agricultural purposes, must remove the area to which that water is to be used from the district boundaries. This has happened in the past, and is expected to continue in the future, for example, in The West Side Irrigation District, which surrounds the City of Tracy. The West Side Irrigation District does not provide any water for M&I use. As water users request M&I service for residential development, those lands will be detached and annexed into the City of Tracy as it continues to expand. As a result, changes in water use from agricultural to M&I within DMC Unit water districts is subject to separate approval by Reclamation and required environmental compliance, including consultation as part of Endangered Species Act review.

San Joaquin County has adopted the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, which covers all of San Joaquin County except federally owned land and specifically excluded projects. The plan compensates for the conversions of open space for urban development, mining, expansion of existing urban boundaries, non-agricultural activities outside of urban boundaries, transportation projects, school expansions, non-federal flood control projects, parks and trails, maintenance and existing facilities and similar public agency projects. It is a voluntary plan for both local jurisdictions and project proponents.

### **Consultation Parameters**

Reclamation is requesting consultation on delivery of full contract amount to DMC Unit contractors of up to the contract amounts shown in Table 1 for the 25 or 40 year contract term. This is in accordance with the "Description of the Proposed Action" from Reclamation's Biological Assessment (U.S. Bureau of Reclamation 2004) and Reclamation's July 19, 2004 memorandum establishing consultation parameters.

The DMC Unit contractors have the ability to receive additional CVP water beyond the contract amount through the use of temporary water transfers, and the ability to permanently increase the amount of their contractual amount by obtaining a permanent water assignment. These are separate Federal actions, and are not proposed or addressed in this consultation. Any future action that permanently or temporarily increases any DMC Unit contractor's total CVP contract amount beyond the amounts shown in Table 1 is also not covered in this long-term contract renewal consultation (e.g. permanent water assignment actions, or an unlikely wet-year scenario where water transfers or similar actions could allow a DMC Unit contractor to receive more than their total CVP contract amount), and will require separate environmental review.

### **Action Area**

The action area (see 50 CFR §402.02) for this opinion falls within portions of Fresno, Merced, San Joaquin, and Stanislaus Counties. Specifically, the project area includes the service areas of the 20 DMC Unit contractors, an area of approximately 190,557.96 acres.

The San Joaquin National Cemetery is considered to be a member of the DMC Unit due to its geographical location. It receives 850 acre feet of CVP water annually through an exchange agreement with the State Water Project. Table 1 lists the contractors in the DMC Unit and provides the approximate size in acres of each district for both 1995 and 2000 and the current contract quantity for each district.

The action area also includes the canals and waterways that return the agricultural runoff from the water districts back to the San Joaquin River or to San Luis Drain. These waterways include Fresno Slough and James Bypass, in addition to the San Luis Drain. Selenium is a constituent of the subsurface drainage water that is discharged outside district boundaries by four districts with existing CVP contracts in the DMC Unit (Broadview, Eagle Field, Mercy Springs, and Oro Loma Water Districts). All four of these districts, plus the Widren Water District are located in the Grassland Drainage Area (GDA), and participate in the Grassland Bypass Project (GBP). The DMC is the water supply source for the Grassland wetland supply channels and the agricultural lands in the GDA.

The Grasslands Project Area is located on the western side of the San Joaquin Valley, which is a gently sloping nearly unbroken alluvial plain about 250 miles long and an average 45 miles wide. The project is located in the Grassland Subarea as defined by the San Joaquin Valley Drainage Program. The Grassland Subarea is an area of approximately 370,000 acres and is generally bounded on the north by the alluvial fan of Orestimba Creek and to the south by the Westlands Subarea. The San Joaquin River forms the eastern boundary and Interstate 5 forms the approximate western boundary. The GDA extends from the Charleston Drainage District on the north at State Highway 165 to the Firebaugh Canal Water District on the south near State Highway 180, near the community of Mendota.

### **Consultation on Related Actions**

The Sacramento Fish and Wildlife Office (SFWO) is currently engaged in, or has recently completed, consultation with Reclamation on related actions. These other consultations include:

1) *CVP Operations Criteria and Plan (OCAP)*. The OCAP describes the coordinated operation of the Central Valley Project (CVP) and State Water Project (SWP) by Reclamation and the California Department of Water Resources (CDWR). The 2004 OCAP consultation addressed the operation of the CVP/SWP in the Sacramento Valley, and included all applicable commitments of the SWP and CVP, such as meeting requirements of the CVPIA HO (Service, 2000), the obligations contained in the Central Valley Water Quality Control Board water right permits, obligations of CVP water service contracts, Sacramento River Settlement contracts, San Joaquin exchange contracts, and other requirements. The 2004 OCAP consultation included the storage of water in reservoirs, releases and river operation, Federal/State diversion facilities, and CVP/SWP export-pumping operations in and through the Delta. Therefore, the OCAP BO addressed all the aquatic effects of operating the CVP/SWP.

On July 30, 2004 the Service issued biological opinion 1-1-04-F-0140, which addressed the effects of delivering CVP water for renewed long term water contracts and other actions on delta smelt and its critical habitat. The long term water contracts, while authorizing a maximum contract amount, recognize that the delivery of the entire contract amount is subject to the availability of water and other obligations (such as biological opinions). Our July 30, 2004, biological opinion on OCAP is hereby incorporated by reference because it analyzed effects of the action addressed in this consultation, and the findings of this consultation cannot be made independently of the analysis and findings of the OCAP biological opinion. The OCAP analysis of effects to delta smelt and its critical habitat also must be made a part of the analysis of the total effects of the long term contract renewals.

2) *Operation and Maintenance of CVP Water Conveyance Facilities in the Jurisdiction of the South-Central California Area Office.* The CVPIA programmatic biological opinion (CVPIA PBO) anticipated that it may be desirable to cover some operations and maintenance activities under long term contract renewal biological opinions (page 2-46). Pursuant to pages 2-46 to 2-49 of the CVPIA PBO and requirements of the biological opinions for CVP Interim Water-Service Renewal Contracts (1995, 1998, 2000, 2002), Reclamation has prepared regional operations and maintenance plans (O&M Plans) to describe the general and routine maintenance and operational procedures Reclamation conducts on their CVP facilities throughout northern California. Because Reclamation aggregated information at different geographic scales and levels of specificity for long term contracts and facility operation and maintenance, the Service determined it was necessary to conduct separate, but concurrent, consultation on operation and maintenance to meet Reclamation's target dates for long term contract renewal. This consultation will analyze effects of operation of CVP facilities associated with renewal of the DMC Unit long term water service contract other than those analyzed in the OCAP biological opinion.

3) *CVP Long-term Water Service Contract renewals.* In addition to the DMC Unit contracts analyzed in this consultation, Reclamation intends to renew about 119 CVP Water Service contracts throughout the Central Valley (27 of which have already been executed in the Friant Division and Hidden and Buchanan Units of the CVP). The CVP Water Service contracts include an annual maximum quantity of approximately 5.6 million afy of CVP water and provide water service to approximately 3.2 million irrigable acres of land and an urban population in excess of 4.3 million people. The long term water contracts renewals, while authorizing a maximum contract amount, recognize that the delivery of the entire contract amount is subject to the availability of water and other CVP obligations.

For efficiency, Reclamation has grouped the CVP water-service contract renewal environmental documents by similar regional issues. Reclamation has requested separate consultations for the following CVP regions: Shasta and Trinity Divisions, Sacramento River Division (Coming Canal, Tehama-Colusa Canal, and Black Butte Units), Feather River Water District, American River Division, Contra Costa Canal Unit, San Felipe Division, Delta-Mendota Canal Unit, and the West San Joaquin Division. The SFWO issued biological opinions for the remaining Friant Division contractors, the Hidden contract, the Buchanan contract, and the Cross Valley Canal



All of the renewing CVP contracts have provisions needed to comply with applicable law, including provisions of the CVPIA and requirements applicable to consultation regarding the execution of the contract and which are within the contractor's legal authority to implement. Renewal contracts incorporate applicable provisions of the CVPIA requiring payment into the Central Valley Project Restoration Fund.

4) *Sacramento River Settlement Contract Renewals.* In addition to the water service contracts, Reclamation also intends to renew about 141 Sacramento River Settlement contracts. These contracts provide for a total of about 1.8 million af of base supply (based on prior water rights) and about 400,000 af of CVP contract water to about 141 contractors.

### **Consultation History**

July 15, 2003. Service receives a July 14, 2003 memo from Reclamation requesting the initiation of formal Section 7 consultation for the long-term contract renewal (LTCR) of SCCAO Water contracts for DMC unit.

August 2003. Service provides request for additional information electronically (informally) to SCCAO.

February 25, 2004. Reclamation provides additional Information and Consultation initiated.

April 20, 2004. Meeting between Maryann Owens and Rosalie Fabion to discuss Water Needs Assessments and historic water deliveries.

June 9 - 10, 2004. Site visits by Graciela Hinshaw (Service) and Ned Gruenhagen (SCCAO) to Water Districts to verify existing conditions.

January 18, 2005. Service receives a January 14, 2005 memo from Reclamation requesting the concurrence that 25 year renewal of the CVP water service contract for the San Joaquin National Cemetery is not likely to adversely affect listed species.

### **Environmental Baseline**

#### *Relationship to the CVPIA Programmatic Biological Opinion*

This long-term contract renewal consultation tiers from the November 2000 Programmatic *Biological Opinion on Implementation of the CVPIA and Continued Operation and Maintenance of the CVP (CVP) (CVPIA PBO)* to address incremental and cumulative effects of the proposed renewal action. This tiering automatically carries forward all conservation measures and other components of the Proposed Action of the CVPIA PBO into this consultation applicable to long term renewal of the DMC Unit contracts. Reclamation's program to implement the CVPIA included the renewal of all existing CVP contracts as a core program (CVPIA PBO page 2-29 to

2-36). Two additional core program actions that affect renewal contract provisions are the implementation of water measurement under CVPIA Section 3405(b) and the implementation of water conservation standards, under CVPIA Section 3405(c).

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

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

Under "Commitments Associated with Long-term Contract Renewal of CVP Contracts (page 2-54 to 2-56) The CVPIA PBO lists these fourteen contract-renewal commitments:

1. Long-term contracts will be renewed, and Reclamation will complete tiered site specific consultations with the Service. **No CVP water will be delivered or applied outside current contract service areas until either formal or informal consultation, as appropriate, is complete.** Once formal site specific consultation has occurred that is in compliance with this opinion, it is assumed that changes in land-use practices and impacts to listed and proposed species, in the districts have been addressed.

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

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

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

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

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

**7. The Service and Reclamation will work together to convey information to the water districts, and individual water users (as appropriate), on listed species needs. Reclamation will establish an outreach and education program, in collaboration with the Service, to help water users integrate implementation of the CVPIA and requirements of the contract renewal process as it relates to the ESA.**

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

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

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

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

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

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

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

Since the issue of the CVPIA PBO in 2000, Reclamation has been working with the Service to address each CVPIA PBO commitment associated with long-term contract renewal of CVP water service contracts and/or refine them so that they are clearly understood and meet the original intent of avoiding and/or addressing impacts to listed species related to the renewal of long-term water contracts (Frank Michny pers. com 11/26/2004). Reclamation has stated that all CVPIA PBO commitments associated with long-term contract renewal of CVP water contracts will or have been addressed to ensure that the renewal of the long-term contracts fully comports with the requirements of the CVPIA PBO and Endangered Species Act as it pertains to federal actions (Frank Michny, U.S. Bureau of Reclamation, pers. com 11/26/2004).

Reclamation is committed to implement all conservation measures described in the CVPIA BO consultation (Frank Michny, U.S. Bureau of Reclamation, pers. com 11/26/2004). The following

is a list of the more significant measures:

The Central Valley Conservation Program - A program that funds activities and land conservation strategies that address species that have been impacted by the CVP. The program is funded and administered by Reclamation and jointly implemented by Reclamation and the Service. Priority funding actions have included land and easement acquisitions, surveys/studies, habitat restoration, captive breeding/reintroduction, and management planning. All funding actions are determined jointly by Reclamation and the Service consistent with priorities established by both agencies.

CVPIA (b)(1) Other Program - A program established under the CVPIA to address the needs of species and habitats impacted by the CVP but not specifically enumerated within the CVPIA. The program is funded annually with CVPIA restoration funds and works in conjunction with the CVP Conservation Program to fund actions that will benefit species impacted by the CVP. Program funding is "split" annually between Reclamation and the Service. All funding actions are determined jointly and are consistent with priorities established by both agencies.

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

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

#### *Environmental Conditions Within the Action Area*

The native habitats in these water districts were converted to agricultural uses decades ago and, according to digital land use mapping information provided by Reclamation through the Central Valley Habitat Monitoring Program, no additional native lands have been converted during the past decade. With the exception of Del Puerto Water District, all of the DMC Unit contractors are fully developed in either agricultural or urban land uses. The Del Puerto Water District has areas of annual grasslands to the west of I-5, which are periodically used for grazing livestock.

Historically, kit foxes inhabited most of the San Joaquin Valley from southern Kern County north to Tracy in San Joaquin County. Conversion of native lands within the DMC likely contributed to the decline in San Joaquin kit fox numbers and distribution throughout its range that ultimately led to its listing under the Act as an endangered species. However, all water districts of the DMC are within the travel and dispersal distance of documented observations of

the kit fox (10 miles). Therefore the kit fox is likely to occur in all DMC water districts. Although agricultural areas are not traditional kit fox habitat and are often highly fragmented, they can offer sufficient prey resources and denning potential to support small numbers of kit foxes. We have no estimate of the relative abundance of kit foxes that potentially may be associated with agricultural lands in the DMC unit.

Giant garter snake may move through non-federal delivery and return water canals in Broadview Water District, Eagle Field Water District, Fresno Slough Water District, James Irrigation District, Laguna Water District, Tranquillity Public Utility District (formerly the Martella/Melvin Hughes Property), Mercy Springs Water District (unassigned portion), Oro Loma Water District, Tranquillity Irrigation District, Widren Water District, Coehlo Family Trust, and Reclamation District #1606; all of which are within 5 miles of giant garter snake observations documented in California Natural Diversity Data Base.

#### Selenium in the DMC Unit.

As noted in the July 2003 Biological Assessment, selenium is a naturally occurring element found in soils and water in certain watersheds along the west side of the San Joaquin Valley. It is carried into surface waters by flooding of certain creeks, but it also occurs in groundwater in the Panuche-Silver Creek fan area. It also can be leached from soils by application of irrigation water, which can increase the concentration of selenium in groundwater, and result in selenium accumulation in areas with shallow water tables near the root zone of plants. In areas of such high water tables, tile or deep drain systems are installed to keep saline water away from plant root zones. Selenium present in the tile drains may be discharged to surface water bodies, where it is of concern for various threatened or listed species, particularly the giant garter snake, which may move through facilities that convey tailwater with elevated selenium levels, and which may bioaccumulate selenium concentrations in giant garter snake food chain organisms (prey organisms such as fish and frogs). Since a significant portion of the fish in Mud Slough are at the level of concern and toxicity ranges, giant garter snakes feeding on the prey base in Mud Slough (North) would be exposed to levels of selenium that potentially could impair reproduction. We have no estimates of the relative abundance of giant garter snakes that potentially may be associated with water conveyance facilities.

Selenium is a constituent of the subsurface drainage water that is discharged outside district boundaries by four districts with existing CVP contracts in the DMC Unit (Broadview, Eagle Field, Mercy Springs, and Oro Loma Water Districts). All four of these districts, plus the Widren Water District are located in the Grassland Drainage Area (GDA), and participate in the Grassland Bypass Project (GBP). Since 1996 the GBP has separated subsurface drainage water from the GDA from channels used to supply wetland habitat. Subsurface drainage water is conveyed from the GDA to the federal San Luis Drain (SLD), pursuant to a Use Agreement between the United States and the San Luis and Delta-Mendota Water Authority. From the SLD, the subsurface drainage water is discharged into Mud Slough (north), a tributary of the San Joaquin River upstream of the Merced River.

Reclamation and the San Luis and Delta-Mendota Water Authority prepared an Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) that examined the environmental effects of the Phase II Use Agreement. A Biological Opinion (BO 1-1-01-F-0153) was issued for Phase II of the GBP on September 28, 2001. That BO analyzed the effects of these water quality issues related to Phase II of the GBP, which began in October 2001 and will cover the activities through December 31, 2009. The terms of the Use Agreement require that a compliance plan be developed by 2006 to identify how selenium objectives in Mud Slough will be met by the compliance date set by the Regional Board. The Phase II Use Agreement requires a long-term management plan to ensure that any drainage discharge beyond the Use Agreement's expiration date will be required to meet water quality objectives for selenium and for salinity in the receiving waters.

In the time between now and 2009, we expect Reclamation will implement a comprehensive solution to selenium drainage in the southern San Joaquin Valley through the San Luis Drainage Feature Re-Evaluation. The project area includes the DMC Unit water districts that are contributing to the selenium levels in the GBP area. The project is in early stages of environmental review; the Administrative Draft Environmental Impact Statement, dated September 2004, is under review by the Service. Implementation of a drainage plan by Reclamation will be subject to review under the Endangered Species Act for effects to giant garter snake beyond 2009. For these reasons, we conclude that renewal of the DMC Unit contracts will not adversely affect the giant garter snake.

#### **Effects of Continued Agricultural Uses for 25 Years After Contract Renewal**

The most significant effects of irrigated agriculture on the kit fox and giant garter snake occurred long ago as a result of the original loss and fragmentation of habitat from conversion of natural lands to agricultural and urban uses. However, as noted in the Environmental Baseline, some agricultural lands provide prey and potential den sites and are likely to continue to provide that function to small numbers of kit fox under renewed water service contracts. Giant garter snakes recorded in wetlands outside of, but within 5 miles of DMC Unit water districts, may also be associated with water conveyance facilities within DMC Unit contract service areas.

The proximity of kit fox and giant garter snakes to actively farmed areas, and their use of some farm lands and facilities for movement corridors, hunting or denning, exposes them to adverse effects of farm chemicals. Pesticides and rodenticides can adversely affect kit foxes and giant garter snakes through direct or secondary poisoning. Kit foxes may be killed if they ingest rodenticide in a bait application, or if they eat a rodent that has consumed the bait. Even sublethal doses of rodenticides may lead to the death of these animals by impairing their ability to escape predators or find food. Pesticides and rodenticides may also indirectly affect the survival of kit foxes and giant garter snakes by reducing the abundances of their staple prey species. Kit foxes occupying habitats adjacent to agricultural lands are also likely to come into contact with insecticides applied to crops owing to runoff or aerial drift. Kit foxes and giant garter snakes could be affected through direct contact with sprays and treated soils, or through consumption of contaminated prey.

The biological assessment and supporting information in the water needs assessments indicate that the DMC Unit contracts reviewed in this consultation (with the exception of those within the sphere of influence of the City of Tracy) are likely to remain predominantly agricultural for the foreseeable future and that even absent a CVP water supply, agricultural land use likely would continue, although many other factors (e.g., fuel costs, commodity prices) will influence whether or not land will be farmed and what will be grown on it. Thus the potential effects attributable to agricultural land use supported by CVP water supply occur seamlessly with the effects of activities having an existence independent of CVP water. These effects have the potential to occur regardless of the continued availability of CVP water, only varying in magnitude. We conclude that the majority of the secondary effects of farming activities are caused by farming activities that have independent utility from the provision of the federal water supply, and that the increment of these effects potentially attributable to the federal water supply is not readily subject to quantification. We therefore conclude that the effects of interrelated and interdependent actions may affect, but are not likely to adversely affect, the San Joaquin kit fox and the giant garter snake.

### **Assignments from the DMC Unit**

The entire amounts of water associated with the contracts for the Widren (2,500 acre feet) and Broadview (27,000 acre feet) Water Districts are being evaluated for permanent assignment to the Westlands Water District, and the consultation underway for the San Luis Unit long-term water contract renewals will evaluate the potential effects of this assignment on the resources within the Westlands Water District. A portion (13,300 acre feet) of the water from the Mercy



Springs Water District is also being assigned to Pajaro Valley Water District, the Santa Clara Valley Water District, and Westlands Water District, and the affects of delivering water to those areas will be covered in the consultations for the San Luis and San Felipe Water Districts.

The water currently assigned to Centinella Water District (2,500 acre feet) is also being considered for assignment to the Westlands Water District. However, a final decision on this action is not anticipated until 2006. Because it is not certain that this assignment will take place, the affects of renewing this contract are fully considered as part of this action. It is our understanding that these assignments will be reviewed as part of the long term contract renewals for the West San Joaquin unit.

### **Conclusion**

We conclude that the renewal of CVP water service contracts in the DMC unit may affect, but is not likely to adversely affect, the San Joaquin kit fox and the giant garter snake for the following reasons: (a) The only service areas likely to undergo significant land use changes from agricultural uses to urban uses are in San Joaquin County, where such land use changes are covered activities under the San Joaquin Multi-Species Conservation Plan, the implementation of which will ensure the conservation of all covered species. Additionally, changes in water use from agricultural to M&I within DMC Unit water districts is subject to separate approval by Reclamation and required environmental compliance, including consultation as part of Endangered Species Act review. (b) Selenium drainage of DMC contractors is currently addressed in our biological opinion on the Grasslands Bypass Project through the year 2009, and subsequently will be addressed through the San Luis Drainage Feature Re-Evaluation, the implementation of which is a future federal action subject to review under the Endangered Species Act. (c) We do not anticipate additional agricultural land conversion in the DMC Unit because the water districts are fully developed. (d) Effects of farming activities attributable to the increment of agricultural activity that has no independent utility apart from the provision of federal water in the fully developed water districts of the DMC is not subject to a severable analysis of effect from agricultural activities in the contract service areas supported by non-CVP water, and are therefore discountable.

### **Closing**

This concludes informal consultation on the 20 water service contracts listed above. No further action is needed unless: (1) 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; (2) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered; or (3) a new species is listed or critical habitat designated that may be affected by the action, and (4) discretionary Federal agency involvement or control over the action is maintained (or is authorized by law). Reclamation should continue to monitor these actions and review this determination as needed based on the reinitiation criteria.

If you have questions regarding the proposed Long Term Renewal of Water Service Contracts

Ms. Kathy Wood

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project, please contact Michael Welsh or Jan Knight at (916) 414-6620 or -6645.

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