

Appendix E

U.S. Fish and Wildlife Service Concurrence Memorandum



United States Department of the Interior




In Reply Refer to:
08ESMF00-
2016-I-0341

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
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FEB 25 2016

Memorandum

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

From:  Chief, San Joaquin Division, Endangered Species Program,, Sacramento Fish and Wildlife Office, Sacramento, California

Subject: Informal Consultation on the Central Valley Project Cross Valley Contractors Interim Renewal Contracts and Article 5 Exchanges, March 1, 2016 – February 28, 2018

This memorandum is in response to the U.S. Bureau of Reclamation's (Reclamation) November 19, 2015 request for concurrence with the determination that the proposed execution of Central Valley Project (CVP) Interim Renewal Water Service Contracts (IRCs) for Cross Valley (CV) Contractors and Article 5 Exchanges, from March 1, 2016 to February 28, 2018 may affect, but is not likely to adversely affect (NLAA) the federally-listed as endangered Buena Vista Lake ornate shrew (*Sorex ornatus relictus*), San Joaquin kit fox (*Vulpes macrotis mutica*), Tipton kangaroo rat (*Dipodomys nitratooides nitratooides*), blunt-nosed leopard lizard (*Gambelia sila*), Kern mallow (*Eremalche kernensis*), and San Joaquin woolly-threads (*Monolopia congdonii*) or critical habitat designated for these species. The districts involved in the CV IRCs and Article 5 Exchanges are located within Fresno, Kern, Tulare and Kings Counties. Your request was received in our office on November 23, 2015. This response is provided under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act), and in accordance with the implementing regulations pertaining to interagency cooperation (50 CFR 402). A Draft Environmental Assessment/Finding of No Significant Impact (DEA/FONSI) for this action was made available for public comment in September 2015.

The Federal action on which we are consulting is the two year-renewal of CV IRCs beginning on March 1, 2016 and ending February 28, 2018 as well as potential Article 5 Exchanges involving the CV IRC districts and other CVP and non-CVP recipients. Pursuant to 50 CFR 402.12(j), you submitted a Biological Evaluation (BE) for our review and requested concurrence with the findings presented therein. These findings conclude that the proposed project may affect, and is NLAA the Buena Vista Lake ornate shrew, San Joaquin kit fox, Tipton kangaroo rat, blunt-nosed leopard lizard, Kern mallow, and San Joaquin woolly-threads or designated critical habitat.

Reclamation has requested initiation of informal consultation under the Act. In considering your request, we based our evaluation on the following information: (1) the November 19, 2015 request for consultation, (2) a BE for the CV IRCs dated November 2015, (3) the DEA/FONSI for CV IRCs dated September 2015, (4) Central Valley Project Habitat Mapping Program (CVPHMP) land use change maps between 2006 and 2011 for CV IRC districts and Article 5 Exchange participants

provided by Reclamation's Regional Office to the Service on January 6, 2016, (5) electronic mail between Reclamation and the Service, (6) information provided by Reclamation's South Central California Area Office for the 2000, 2002, 2004, 2006, 2008, 2010, 2012, and 2014 consultations involving CVC IRCs, and other information available to the Service.

Reclamation has prepared and shared its 2016 CVPHMP maps and tables of habitat changes (based on information from the National Land Cover Database¹ comparing land use data from 2006 with 2011) with the Service. Using the 2016 CVPHMP Mapping analysis and Reclamation's 2000 baseline Central Valley Habitat Mapping, Reclamation along with the Service affirm their commitment to continue to work collaboratively to interpret and evaluate the 2016 CVPHMP data and to examine sensitive land use changes revealed by said mapping and determine whether any additional conservation measures are required. This commitment is made to comply, in part, with the Biological Opinion on Implementation of the Central Valley Project Improvement Act (CVPIA) and Continued Operation and Maintenance of the CVP, issued in November 2000, File Number 98-F-0124, pages 2-62 through 2-64.

Reclamation has determined that the proposed action will have no effect on the federally-listed species or critical habitats identified in Appendix A and is not requesting concurrence with those determinations. These no effect determinations are predicated on the conclusion that these species are not adapted to highly disturbed conditions, would not become established on land that had been fallowed for less than three years and would not occur on land that is being cultivated or is highly disturbed. These determinations of "no effect" are also based on an environmental commitment in the DEA/FONSI stipulating that "no native or untilled land (fallow for three consecutive years or more) may be cultivated with CVP water without additional environmental analysis and approval" (land conversion commitment).

Reclamation is requesting concurrence with NLAA for those species that could occupy or colonize lands that are fallowed for less than three years within the CV IRCs and Article 5 Exchanges: the Buena Vista Lake ornate shrew, San Joaquin kit fox, Tipton kangaroo rat, blunt-nosed leopard lizard, Kern mallow, and San Joaquin woolly-threads and critical habitat designated for Buena Vista Lake ornate shrew. These species were considered able to move onto, or sprout from the seedbanks on, lands that could be fallowed less than 3 years and could potentially be affected by such fallowed lands being brought back into production. The information provided for this consultation, as well as the short duration of this project and land conversion commitment in the DEA/FONSI, provides the basis for the Service to concur with Reclamation's determination that the CV IRCs and Article 5 exchanges are NLAA the species listed above.

The Service's Sacramento Fish and Wildlife Office issued a biological opinion on long-term renewal of the Friant and CV CVP water service contracts (Friant BiOp) on January 19, 2001 (File No. 01-F-0027). As part of that consultation, the Friant Division and CV contractors sought and received Applicant status under the Act. Reclamation, however, has not yet executed the long term contracts for the CV contracts. Compliance with the Act for the CV IRCs is governed by the commitments made in the Friant BiOp. For the purposes of this consultation, and as outlined in the BE for this action, all conservation measures and Applicant commitments described in the Friant BiOp apply to CV IRCs for the period of March 1, 2016 through February 29, 2018, or until long-term contracts for the CV contractors are executed, whichever comes first. These measures are summarized in Appendix B. Interim contract renewals of CV water service contracts will not result in additional adverse effects to listed species beyond those analyzed in the Friant BiOp. We therefore are only

¹ Information on the National Land Cover Database is available at: <http://www.mrlc.gov/>

considering Reclamation's concurrence request for listed species within Article 5 exchange recipient districts and on lands fallowed for less than 3 years within CV IRC.

Consultation History

The consultation history, prior to the 2012 CV IRCs, was identified in detail in previous consultations on these contracts and is hereby incorporated by reference (Service Files Nos., 00-F-0056, 02-F-0070, 04-F-0360, 06-F-0070, 08-F-0944-1 and -2).

August 18, 2011: The Service receives a memo from Reclamation requesting consultation pursuant to the Act on CVP Interim contracts.

October 4, 2011: The Service sends a response, noting that the previous consultation did not include the Article 5 Exchanges, and requesting further information regarding effects to federally-listed species that must be provided before consultation can be initiated.

November 21, 2011: Reclamation sends a memo to the Service requesting reinitiation of consultation pursuant to the Act for CVC Interim contracts and Article 5 Exchanges.

January 25-30, 2012: The Service requests via e-mail an example of Reclamation's approval letter for Article 5 Exchanges. Reclamation provides a copy of an Approval Letter for CVC contractors' Article 5 Exchanges.

January 31, 2012: Reclamation commits to revising language in their Approval Letters that would be signed by the participants, by moving the current stand-alone paragraph pertaining to fallowed or untilled lands to an item #12 in the numbered list of commitments.

February 9, 2012: Reclamation transmits a memo via e-mail to the Service providing environmental commitment language for the CVC Interim Contract consultation and a summary of environmental commitments from the biological opinion on long term contract renewals for the Friant and Cross Valley contractors (Service File No. 01-F-0027) and the CVPIA biological opinion (Service File No. 98-F-0124).

February 15, 2012: The Service requests confirmation via e-mail that the Exhibit A maps for all CV IRCs except County of Fresno from the 2008 Environmental Assessment for interim contract renewals are still accurate. Reclamation confirms via e-mail that the Exhibit A maps from 2008 for all CV except County of Fresno are still accurate.

February 21-22, 2012: The Service requests a current map of County of Fresno Contract Service Area #34 – Exhibit A of the CVP Interim contracts. Reclamation transmits via e-mail a revised map of the County of Fresno Contract Service Area #34.

February 29, 2012: The Service transmits a memo concurring with Reclamation's determinations and completing informal consultation on the CV IRCs and Article 5 Exchanges for 2 years beginning on March 1, 2012.

October 30, 2013: The Service receives a memo from Reclamation requesting informal consultation under the Act on CV IRCs and Article 5 Exchanges. The transmittal includes a Biological Evaluation as an attachment.

February 12, 2014: The Service transmits a memo concurring with Reclamation's determinations and completing informal consultation on the CV IRCs and Article 5 Exchanges for 2 years beginning on March 1, 2014. The Service also requested that land use maps and data (as required by the CVPIA BiOp) be provided for the next re-consultation, that information on water delivered under Article 5 Exchanges and information on CV conjunctive use projects be provided, and that the CV contractors be made applicants for the next re-consultation (or that contract language be changed to place environmental commitments directly on the CV contractors).

October 20, 2015: The Service receives via email from Reclamation, a press release announcing the availability of the DEA and draft FONSI for CV IRCs and Article 5 Exchanges.

November 23, 2015: The Service receives a memo from Reclamation requesting informal consultation under the Act on CV IRCs and Article 5 Exchanges. The transmittal includes a Biological Evaluation as an attachment.

January 6, 2016: The Service receives a memo from Reclamation transmitting CVPHP maps and tables for CVP and non-CVP districts that can receive CVP water. The maps and tables provided compared National Land Cover Database (NLCD) data from U.S. Geological Survey for 2006 and 2011.

February 2, 2016: Reclamation transmits via email the Exhibit A maps for CV IRCs which includes a revised map for County of Fresno Contract Service Area #34.

Relationship of the Proposed Action to Other Reclamation Actions

Coordinated Long-Term Operation of the CVP and State Water Project (OCAP)

The effects of water exports from the Delta on protected species are addressed separately by NMFS and Service in consultations on continued long-term operation of the CVP and State Water Project (SWP) referred to as OCAP. Biological Opinions on OCAP have been issued by NMFS (2009) and Service (December 15, 2008, Service File 08-F-1481-5) for the effects of the continued long-term operation of the CVP and SWP. However, since that time, the United States Court, Eastern District of California remanded the OCAP BiOps, and, Reclamation was ordered by the Court to comply with NEPA before accepting the Reasonable and Prudent Alternatives of the BiOps. Subsequently, the OCAP BiOp issued by the Service was upheld by another Court ruling² Reclamation recently signed a Record of Decision for OCAP supported by the Coordinated Long-term Operation of the Central Valley Project and State Water Project Final Environmental Impact Statement. The Preferred Alternative identified in the OCAP Final EIS and the Reclamation's decision included in the ROD is to implement the No Action Alternative. The No Action Alternative contains all of the Reasonable and Prudent Alternative actions in the 2008 U.S. Fish and Wildlife Service and 2009 National Marine Fisheries Service Biological Opinions³.

Changes to County of Fresno Service Area #34

The Service has been involved in several consultations involving County of Fresno Service Area #34 (a CV IRC contractor). The Service completed a formal consultation on January 7, 2009 on the proposed Millerton New Town (MNT) Tract 4870 change in service area (File 08-F-1248). On

² see: http://www.fws.gov/sfbaydelta/documents/APPELLATE-315077-v1-Delta_smelt_II_-_panel_decision.pdf

³ The ROD and Final EIS for OCAP are available at:
http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=21883

March 21, 2014 the Service completed a reinitiated formal consultation on Millerton New Town Tract 4870 to increase the size of the action area. The Service also completed formal consultation with Reclamation on August 28, 2015 on the authorization of three long-term water transfers to Fresno County from Arvin-Edison Water Storage District and Terra Bella Irrigation District (Friant contractors) and the Lower Tule River Irrigation District (a Friant and CV IRC contractor) for a proposed development in the Millerton New Town Specific Plan Area (MNTSPA; File No. 09-F-0873). The MNTSPA considered in that consultation does not include the 88 acres that were considered in the formal consultation on Millerton New Town Tract 4870. Changes to the County of Fresno Service Area #34 are included in the Exhibit A map for their CV IRC and depicted in Figure 7 in Appendix C of this memo.

Proposed Action

This informal consultation is a reinitiation of previous consultations on IRCs that involved these CV contracts, and those consultations are included here by reference (Service File Nos., 00-F-0056, 02-F-0070, 04-F-0360, 06-F-0070, 08-F-0944-1 and -2, 2012-I-0255, and 2014-I-0040). This consultation on CV IRCs described in Table 1, as established pursuant to Section 3404(c) of the Central Valley Project Improvement Act (CVPIA), addresses the effects of the proposed renewal of the CV IRCs for a two-year period from March 1, 2016 to February 28, 2018. The water supplied through these contracts will be used within the contract service areas as shown in Appendix C, Figures 1-8, 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 (Service File 98-F-0124).

Table 1. Cross Valley Contractors' Contract Quantities and Expiration Dates

Contractor	Existing IRC #	Contract Quantity (AF)	Purpose of Use	Expiration Date
County of Fresno ⁴	14-06-200-8292A-IR16	3,000	Agriculture and M&I	2/28/2018
County of Tulare ⁵	14-06-200-8293A-IR16	5,308	Agriculture and M&I	2/28/2018
Hills Valley Irrigation District	14-06-200-8466A-IR16	3,346	Agriculture and M&I	2/28/2018
Kern-Tulare Water District (KTWD) ⁶	14-06-200-8601A-IR16	40,000	Agriculture and M&I	2/28/2018
Kern-Tulare Water	14-06-200-8367A-IR16	13,300	Agriculture and M&I	2/28/2018

⁴ County of Fresno includes County Service Area #34.

⁵ County of Tulare subcontractors include Alpaugh Irrigation District, Atwell Island Water District, Hills Valley Irrigation District, Saucelito Irrigation District, Stone Corral Irrigation District, City of Lindsay, Strathmore Public Utility District, Styrotek, Inc., and the City of Visalia.

⁶ KTWD and Rag Gulch Water District have consolidated their two districts into one district, under KTWD's name through a contract assignment of Rag Gulch Water District's assigned IRC (for 13,300 AF). As part of that assignment, KTWD has committed to maintain the effective separation of the two districts in terms of how much water is delivered and applied where, until the long-term water service contracts are negotiated and appropriate environmental compliance is completed.

District (Rag Gulch Water District) ⁴				
Lower Tule River Irrigation District	14-06-200-8237A-IR16	31,102	Agriculture and M&I	2/28/2018
Pixley Irrigation District	14-06-200-8238A-IR16	31,102	Agriculture and M&I	2/28/2018
Tri-Valley Water District	14-06-200-8565A-IR16	1,142	Agriculture and M&I	2/28/2018
Total		128,300		

This consultation addresses the effects of the proposed renewal of eight IRCs in the CV Unit of the CVP, which are executed in accordance with Section 3401(c) of the CVPIA for a maximum period of 2 years. Some of the CV contractors are composed of several subcontractors. Altogether, there are fifteen water suppliers within the group known as the CV contractors. Under the IRCs, CV contractors can receive up to 128,300 acre-feet/year of CVP water. The CV contract service areas are located along the eastern side of the southern San Joaquin Valley. The water delivered for these IRCs will be used for agricultural, municipal, and industrial purposes, and will not exceed water allocations determined by existing CVP operations criteria established in the OCAP BiOps. The Proposed Action will continue existing IRCs for the CV contractors, with only minor administrative changes to the contract provisions to update the previous IRCs for the new contract period. No changes to CV contract service areas or water deliveries are part of the Proposed Action. Central Valley Project water deliveries under the CV IRCs can only be used within each designated contract service areas. The water delivered for these interim contracts will be used for agricultural, municipal, and industrial purposes, and will not exceed water allocations determined by existing CVP OCAP BiOps.

Article 5 Exchanges

In addition to the CV interim contracts, the Proposed Action includes Reclamation's approval of the CV contractors' exchange arrangements with individually proposed exchange partners for the 2016 and 2017 contract years (March 1, 2016 through February 28, 2018) for up to the full CV contractors CVP contract supply of 128,300 acre-feet/year. Beginning in 1975, the first CV contractors entered into three-party contracts with Reclamation and the Department of Water Resources (DWR). Pursuant to these contracts, Reclamation provided long-term water service and DWR provided conveyance for the CV contractors. Although the CV contractors are situated on the eastside of the San Joaquin Valley amid the Friant Division CVP contractors (who receive their CVP supplies from the San Joaquin River stored in Millerton Lake via the Friant Kern Canal), for the CV contractors CVP water is not delivered from the San Joaquin River but is pumped from the Delta by the DWR and/or Reclamation. Reclamation may store the water in San Luis Reservoir and convey it in the San Luis Canal (SLC)/California Aqueduct for delivery to the CV contractor(s). Due to direct conveyance hurdles, Reclamation envisioned that the CV contractors would obtain their CVP supplies via exchanges. The exchange arrangements are set forth in Article 5(a) of the CV contractors' interim water service contracts, which states the following:

POINT OF DIVERSION AND RESPONSIBILITY FOR DISTRIBUTION OF WATER

5. (a) Project Water scheduled pursuant to subdivision (b) of Article 4 of this Contract shall be delivered to the Contractor at a point or points of delivery either on Project and/or State facilities or another location or locations mutually agreed to in writing by the Contracting Officer, DWR, and the Contractor. The parties acknowledge that Project Water to be furnished to the Contractor pursuant to this Contract shall be conveyed by DWR and delivered to the Contractor by direct delivery via the Cross Valley Canal and/or by exchange arrangements involving Arvin-Edison Water Storage District or others. The parties further

acknowledge that such exchange arrangements are not transfers subject to Section 3405(a) of CVPIA. Notwithstanding Article 9 of this Contract, such exchange arrangements, other than the previously approved exchange arrangements with Arvin-Edison Water Storage District, shall be submitted to the Contracting Officer for approval in accordance with principles historically applied by the Contracting Officer in approving Cross Valley exchange arrangements. DWR shall have no obligation to make such exchange arrangements or be responsible for water transported in facilities that are not a part of the SWP.

The Proposed Action would also include the continued historical exchanges between the CV contractors and Arvin Edison Water Storage District (AEWSD). A description of other CVP contractors and non-CVP contractors that are potential exchange partners can be found in Appendix D. Some of these districts have sub-entities which may include CVP and/or SWP contractors. In some cases, the diversions of non-CVP water from rivers, creeks and ditches, is based on the total runoff in any given hydrological season. The districts receive a percentage of the runoff and no specific limit exists to the total annual supply. The total amount of non-CVP water is difficult to quantify; therefore, average water supplies are depicted.

Due to varying hydrological conditions, loss due to evaporation and/or seepage, differences in the value of water, and/or timing, imbalanced exchanges could occur. Consistent with historical practices, under the Proposed Action, imbalanced exchange arrangements would be permitted but limited to a ratio of 2:1. Proposed exchange arrangements exceeding this amount are not within the scope of this analysis and subsequent environmental review(s) would be required. A 2:1 imbalanced exchange occurs when the first component of the exchange, the CV contractors' annual allocation (not to exceed 128,300 AF/y), would be delivered to a participating entity. As the second component of the exchange, no less than 50 percent of the water that was delivered in the first component of the exchange to the participating entity would be delivered to the CV contractors. Possible exchange arrangements could be completed as follows:

1. Historical exchanges with AEWSD

- The CV contractors' CVP water is conveyed down the Aqueduct where it would be diverted by AEWSD turnouts off the Aqueduct or CV. In return, AEWSD's Friant Division CVP water is diverted from the Friant Kern Canal (FKC) into the CV contractors' service areas.

2. Exchanges with Friant Division CVP contractors

- The CV contractors' water is conveyed down the Aqueduct and diverted into the CV. The water is then pumped from the CV into the FKC and delivered to a Friant Division CVP contractor. In return, the Friant Division CVP contractor's water is diverted from the FKC into the CV contractors' respective turnouts.

3. Exchanges with SWP contractors

- The CV contractors' water is conveyed down the Aqueduct where it is diverted by a SWP contractor. In return, The SWP contractor's water is diverted from the Aqueduct into the CV where the water is then pumped into the FKC and ultimately delivered to the CV contractors. In addition, SWP contractor previously banked water in Kern County could be extracted into the CV and pumped into the FKC and delivered to the CV contractors.

4. Exchanges with Tulare Lake Basin Water Storage District (TLBWSD) contractors

- The CV contractors' water is conveyed down the Aqueduct where it is diverted by TLBWSD contractors. In return, TLBWSD contractors deliver non-project water from Pine Flat, Kaweah, or Success Lake to Friant Division CVP contractors utilizing the same local system (non-CVP facilities). The Friant Division CVP contractors' water is then diverted from the FKC by CV contractors.

CVP water may be wheeled under Article 55 of a SWP contract as one component of the exchange. Article 55 of the SWP contracts allows for the SWP contractor to convey non-SWP water in their increment of capacity in the Aqueduct. Under this scenario, a SWP contractor would request DWR to convey a CV contractor's CVP water, if capacity exists, in the Aqueduct. This option results in elevating the CV contractor's priority for DWR to convey the water.

CVP water is tracked from its origin to its final disposition (end use) and does not lose its Federal characteristics under the California water rights permits. Water supplies would be used in compliance with the applicable water rights permits and conform to the applicable purpose and place-of-use of the associated water rights permit. In addition, the following commitments are part of the Proposed Action:

- The exchanged water may be applied only to lands located within the appropriate Place of Use boundaries⁷;
- The water may be used for either Agricultural or M&I purposes;
- No native or untilled land (fallow for three consecutive years or more) may be cultivated with this water;
- No new construction or modification of existing facilities is to occur in order to complete the Proposed Action;
- No changes in the point of diversion or places-of-use without prior approvals from the State Water Resources Control Board, Reclamation, and/or DWR as applicable;
- No unmitigable impacts can be caused to a third party without discussion between the parties involved;
- Exchanges must not alter the quality of water, or the hydrological regime of natural waterways or natural watercourses such as rivers, streams, creeks, lakes, ponds, pools, or wetlands, etc., in a way that may have a detrimental effect on fish or wildlife or their habitats;
- All exchanges must comply with all applicable Federal, state and local laws, regulations, permits and policies; and
- Reclamation would review each exchange proposal for compliance with the above conditions prior to approval and execution of the action, and determination that the action is consistent with the criteria described within the DEA for this action.

Any exchange involving a district/entity other than Arvin-Edison Water Storage District would require an approval letter from the Contracting Officer, that would include all environmental commitments and which would be signed by an authorized official for the exchanger and exchangee.

⁷ There are three relevant Places of Use: the Consolidated Place of Use, the Friant, Ag only Place of Use, and the Friant Ag & M&I Place of Use. The Cross Valley Contractors would get some Friant water and thus the Friant Places of Use would apply to them. However, the exchangees would receive delta water, and thus the Consolidated Place of Use would apply for those districts.

In an email from Reclamation to the Service dated February 19, 2016, Reclamation noted that CV Contractors only exchange water with the Friant Division Contractors when the runoff on the San Joaquin River is sufficient to declare a full Class 1 allocation and a minimum percent of Class 2 water supply. Due to the critically dry water years in 2014 and 2015, Friant Division contractors had no Class 1 or Class 2 water allocations. As a result, there were zero Article 5 Exchanges executed since 2013.

Action Area

The CV districts or sub-entities and recipient districts of Article 5 Exchanges included in the Proposed Action are located in the southern end of the San Joaquin Valley (SJV), in parts of Fresno, Kern, Kings, and Tulare Counties (Figure 1). The Action Area encompasses all the areas of the listed contractors and irrigation/water districts that are also located within either or all of the following: CVP Consolidated and Conformed Place of Use (POU), Friant Ag POU and Friant Ag & M&I POU. Each place of use is specific to the origin and use of the water, and refers to those geographic areas that can legally be served with CVP water. The Action Area for water districts such as the Kern County Water Agency (whose boundaries extend to the limits of Kern County) only extends to the boundary of the CVP Consolidated and Conformed POU.

The Action Area extends from the northern end of Fresno County along the San Joaquin River, to southern Kern County where the Tehachapi Mountains ring the southern end of the Central Valley. The eastern edge of the Action Area extends slightly into the Sierra Nevada foothills. Its boundary line meanders from 5 to 20 miles east of Highway 99. The western boundary extends to the foothills of the Diablo Range, and roughly follows Interstate 5 from its intersection with Highway 41 southward.

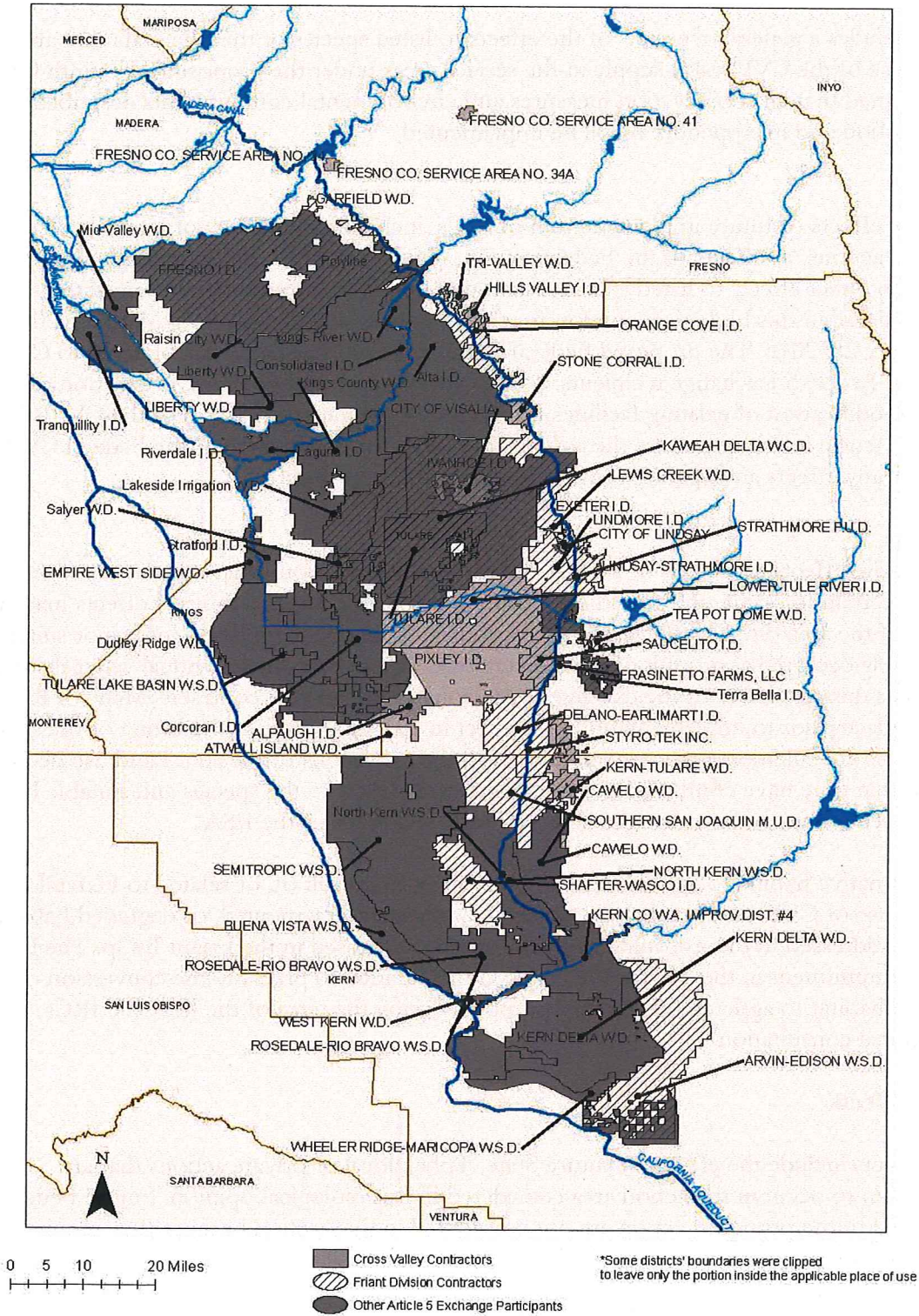
Key Assumptions

Because of the complex history as well as the complex present environmental and regulatory context of IRCs, 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:

1. Reclamation will continue to adhere to the conservation measures from previous IRC consultations, specifically to ensure that project water is not used in a manner that adversely affects listed, proposed or candidate species. The Service considers the scope of this conservation measure to include the assurance that project water will not be used in whole or in part to facilitate the conversion of existing natural habitat to agricultural or other purposes and this determination is essential to the conclusions made regarding the overall effects of the proposed action. If this fundamental assumption is not valid, then the effects analysis and conclusion of this BiOp will need to be reviewed.
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 Friant BiOps. Other CVP-related, non-CVPIA actions benefiting fish, wildlife, and associated habitats and related to effects of IRCs 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; and,
 - c. CVP Conservation Program and CVPIA B(1)(other) Habitat Restoration Program.
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 and the 2008 OCAP biological opinion.

Figure 1. CV IRC and Article 5 Exchange Participant Districts (source: USBR)



Effects of the Action

This section includes a general overview of the effects to listed species or their habitats that are related to the use of the CVP water supply in the service areas under the proposed 24-month CV IRCs. It is assumed that all conservation measures and environmental commitments described in the Project Description and in Appendix B will be implemented.

Direct Effects

We address the effects of future implementation of IRCs, including the effects of interrelated and interdependent actions, as effects of the Federal action, not as part of the environmental baseline. There will be no direct effects to listed species associated with the proposed execution of the interim contracts considered in this biological opinion for the 24 month period beginning March 1, 2016, through February 28, 2018. The proposed Federal action will continue deliveries of water to CV contractors and Article 5 Exchange recipients. No construction of new facilities, installation of new structures, or modification of existing facilities is required or planned. Execution of the CV IRC's and associated Article 5 Exchanges are the actions that allow for the delivery of the Federal CVP water, and thus any effects anticipated would be indirect, rather than direct.

Indirect Effects

Indirect effects are effects caused by or result from the proposed action, will occur later in time, and are reasonably certain to occur, and would not occur "but for" the project. Indirect effects may also occur outside of the area directly affected by the action. Indirect effects to listed species or suitable habitat have likely occurred as a result of the delivery of CVP water to the individual water districts or municipalities during the life of the existing or previous water delivery contracts. Many of these activities took place prior to implementation of the Act in 1973 and prior to the listing of the species considered in this consultation and were not subject to the provisions of the Act. Land use decisions subsequent to that time have continued to result in adverse effects to the species and suitable habitat and have not been authorized incidental take under section 9 or 10 of the ESA.

Conversions of native habitat to agricultural use may occur as a result of, or related to Federal water deliveries. The use of CVP water in the past destroyed, modified, fragmented, or degraded habitat for the species addressed in this consultation and formerly addressed in the Friant BiOp. The land conservation commitment in the EA for the CV IRCs is intended to preclude the conversion of existing natural habitat to agricultural or other purposes during the term of the next CV IRCs without additional consultation.

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.

Numerous activities continue to result in loss and degradation of habitat used by listed threatened and endangered species in the action area for this consultation. Habitat loss and degradation affecting both animals and plants continues as a result of urbanization, oil and gas development, road and utility right-of-way management, flood control projects, livestock grazing, and continued agricultural expansion. Listed animal species also are affected by poisoning, shooting, increased predation associated with human development, and reduction of food sources. All of these non-federal activities are expected to continue to adversely affect listed species in the action area.

Conversion of land for agricultural purposes continues to be the most critical threat to listed species. Although the increment of habitat loss attributable to urban development appears to be increasing, these activities remain less significant than agriculture for most species. Agricultural conversion is generally not subject to any environmental review and is not directly monitored or regulated. In addition, CVP water is used for groundwater recharge by some districts in the San Joaquin Valley. Such recharge may allow nearby landowners to pump groundwater for uses that may affect listed species.

Cumulative effects on many species are severe enough to substantially reduce the likelihood of long-term survival and recovery of these species. The IRCs and ongoing CVP operations contribute to the threat to these species.

Many of the private actions that will occur as an indirect effect of receiving CVP contract supply would also occur without the Federal water deliveries. Those actions that will occur without Federal water deliveries from the proposed action will result in cumulative effects.

Conclusion

As a result of the Environmental Commitments included in the Proposed Action, and summarized in Appendix B, and the short-term nature of the action, the Service concurs with Reclamation's effects determination that the Proposed Action is NLAA the Buena Vista Lake shrew, San Joaquin kit fox, Tipton kangaroo rat, blunt-nosed leopard lizard, Kern mallow, and San Joaquin woolly-threads or critical habitat designated for these species. The CV IRCs remain subject to the conservation measures, Applicant commitments, and non-discretionary terms and conditions, as applicable, in the CVPIA and Friant BiOps. The CV IRCs also remain subject to conservation measures, Applicant commitments, and non-discretionary terms and conditions from of formal consultation and reinitiated consultation on the Millerton new Town Tract 4870 Change in Service Area for the Water Service Contract for the County of Fresno, Service Area No. 34 (File No. 08-F-1248) and the formal consultation on Long Term Water Transfers for Millerton New Town Specific Plan Area (File No. 08-F-0873), as County of Fresno is one of the CV contractors included in this consultation. Our concurrence with your NLAA determination concludes consultation for this action.

Therefore, unless new information reveals effects of the proposed action that may affect listed species in a manner or to an extent not considered, no further action pursuant to the Act is necessary. If you have questions or concerns regarding this action, please contact Thomas Leeman at the letterhead address or at (916) 414-6544.

Attachments

cc:

Shauna McDonald, U.S. Bureau of Reclamation, Fresno, CA

Appendix A.

Federally threatened and endangered species and/or critical habitat potentially within the Action Area that Reclamation has determined would not be affected by the proposed action.

Common Name	Scientific Name	Federal Status	Critical Habitat
Arroyo toad	<i>Anaxyrus californicus</i>	Endangered	Designated
Bakersfield cactus	<i>Opuntia treleasei</i> (= <i>Opuntia basilaris treleasei</i>)	Endangered	None
California clapper rail	<i>Rallus longirostris obsoletus</i>	Endangered	None
California condor	<i>Gymnogyps californianus</i>	Endangered	Designated
California jewelflower	<i>Campanula californica</i>	Endangered	None
California red-legged frog	<i>Rana aurora draytonii</i>	Threatened	Designated
California tiger salamander	<i>Ambystoma californiense</i>	Threatened	Designated
Coastal California gnatcatcher	<i>Polyptila californica californica</i>	Threatened	Designated
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	Endangered	Designated
Delta smelt	<i>Hypomesus transpacificus</i>	Threatened	Designated
Desert tortoise	<i>Gopherus agassizii</i>	Threatened	Designated
Fisher	<i>Martes pennant</i>	Proposed Threatened	None
Fresno kangaroo rat	<i>Dipodomys nitratoideus exilis</i>	Endangered	Designated
Giant garter snake	<i>Thamnophis gigas</i>	Threatened	None
Giant kangaroo rat	<i>Dipodomys ingens</i>	Endangered	None
Greene's tuctoria	<i>Tuctoria greenei</i>	Endangered	Designated
Hairy Orcutt grass	<i>Orcuttia pilosa</i>	Endangered	Designated
Hartweg's golden sunburst	<i>Pseudobahia bahiifolia</i>	Endangered	None
Hoover's spurge	<i>Chamaesyce hooveri</i>	Threatened	Designated
Keck's checker-mallow (=checkerbloom)	<i>Sidalcea keckii</i>	Endangered	Designated
Kern primrose sphinx moth	<i>Euprosperpinus euterpe</i>	Threatened	None
Lahontan cutthroat trout	<i>Oncorhynchus clarki benshawi</i>	Threatened	None
Least Bell's vireo	<i>Vireo belli pusillus</i>	Endangered	Designated
Little Kern golden trout	<i>Oncorhynchus mykiss</i> (= <i>aguabonita</i>) <i>whitei</i>	Threatened	Designated
Longhorn fairy shrimp	<i>Branchinecta longiantenna</i>	Endangered	Designated

Common Name	Scientific Name	Federal Status	Critical Habitat
Mariposa pussy-paws	<i>Calyptridium pulchellum</i>	Threatened	None
Marsh sandwort	<i>Arenaria paludicola</i>	Endangered	None
Mohave tui chub	<i>Gila bicolor</i> ssp. <i>mobavensis</i>	Endangered	None
Mountain yellow-legged frog	<i>Rana muscosa</i>	Endangered	Proposed
Owens pupfish	<i>Cyprinodon radiosus</i>	Endangered	None
Owens tui chub	<i>Gila bicolor snyderi</i>	Endangered	None
Paiute cutthroat trout	<i>Oncorhynchus clarki seleniris</i>	Threatened	None
Palmate-bracted bird's-beak	<i>Cordylanthus palmatus</i>	Endangered	None
Ramshaw sand-verbena	<i>Abronia alpine</i>	Candidate	None
Riparian brush rabbit	<i>Sylvilagus bachmani riparius</i>	Endangered	None
Riparian woodrat (San Joaquin Valley woodrat)	<i>Neotoma fuscipes riparia</i>	Endangered	None
San Benito evening-primrose	<i>Camissonia benitensis</i>	Threatened	None
San Fernando Valley spineflower	<i>Chorizanthe parryi</i> var. <i>fernandina</i>	Candidate	None
San Joaquin adobe sunburst	<i>Pseudobahia peirsonii</i>	Threatened	None
San Joaquin Valley Orcutt grass	<i>Orcuttia inaequalis</i>	Endangered	Designated
San Mateo thornmint	<i>Acanthomintha obovata</i> ssp. <i>duttonii</i>	Endangered	None
Sierra Nevada bighorn sheep	<i>Ovis canadensis californiana</i>	Endangered	Designated
Sierra Nevada yellow-legged frog	<i>Rana sierra</i>	Endangered	Proposed
Southwestern willow flycatcher	<i>Empidonax traillii eximius</i>	Endangered	Designated
Springville clarkia	<i>Clarkia springvillensis</i>	Threatened	None
Succulent owl's-clover	<i>Castilleja campestris</i> ssp. <i>succulenta</i>	Threatened	Designated
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	Threatened	Designated
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	Threatened	Designated
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	Endangered	Designated
Western snowy plover	<i>Charadrius alexandrinus nivosus</i>	Threatened	Designated

Common Name	Scientific Name	Federal Status	Critical Habitat
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Proposed	None
Yosemite toad	<i>Bufo canorus</i>	Threatened	Proposed

Appendix B.

Summarized Environmental Commitments from the 2001 Friant-Cross Valley Long Term Water Service Contract Renewals Biological Opinion (01-F-0027) and the CVPIA Biological Opinion (98-F-0124) that are relevant to the CV IRCs and associated Article 5 Exchanges [Note: numbering is preserved from the source documents].

Summarized Environmental Commitments from the 2001 Friant Cross Valley Long Term Water Service Contract Renewals Biological Opinion (01-F-0027) and the CVPIA Biological Opinion (98-F-0124) that are relevant to the CV IRCs and associated Article 5 Exchanges [Note: numbering is preserved from the source documents].

2001 Friant/Cross Valley BiOp

5. Identify and map endangered species habitat in CVP contractor service areas and provide to contractors.

Phase I - A 1993 landcover database or basemap will be developed using the best available existing landcover data and satellite imagery.

Phase II - will determine areas of habitat change by comparing 1993 image data to year 2000 image data. Based on available GIS datasets and spectral change analysis, a preliminary change map will be created to guide sampling and remapping efforts in phase III.

Phase III - will create an updated landcover database representative of landcover and habitat conditions for year 2000. This process may include:

- Field sampling to determine the cause of change and identification of habitat types in change areas.
- Acquisition of large scale, orthorectified digital aerial photography for verification and remapping purposes.
- Additional mapping efforts in areas where existing datasets from 1993 are not adequate to meet the needs of this project.
- GIS analysis for habitat change monitoring.

Additionally, Reclamation and the Service commit to revisit and update the land cover database for year 2000 every 5 years for monitoring and trends analysis purposes.

6. Monitor land use change and ongoing activities within Districts receiving CVP water.

a. 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.

7. Landowners obtain Service/Reclamation approval prior to taking actions on endangered species habitat with no Federal involvement.

8. Ensure section 7 consultation on future actions impacting endangered species where there is Federal involvement. The Friant Division and Cross Valley Unit CVP water contractors, whose contracts are currently up for renewal, have also made "Applicant Commitments" that they will not deliver CVPIA Project Water for the purpose of converting any native lands to agricultural or M&I uses unless and until appropriate ESA compliance has determined that such conversion will not likely affect protected species or appropriate mitigation has been provided.

18. Identify and analyze impacts of all water assignments executed since 1991 for Friant and 1995 for Interim contractors, and coordination on future assignments to ensure ESA compliance.

19. Reclamation will apply applicable criteria to all water transfers.
22. Curtail deliveries associated with discovery of conversion of native lands without consideration of ESA⁹
24. Reclamation shall consult with the Service on any deliveries of water using Friant facilities beyond that addressed in this biological opinion.

2000 CVPIA BiOp

B. Commitments Associated with Long-term Renewal¹⁰ of CVP Water Service Contracts

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.
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.¹¹
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.¹²
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

⁹ Reclamation and the Service have in practice been using this definition of "native lands": lands never tilled or lands fallowed and untilled for three or more years.

¹⁰ These apply to CV IRCs as well.

¹¹ Letters were already sent to CVCs and Friant Contractors, but an Environmental Commitment Program form would be used for the interim contract renewal that would inform districts of the required commitments.

¹² This would take the form of "requirements resulting from site specific Section 7 consultation" in this case.

implementation of the CVPIA and requirements of the contract renewal process as it relates to the ESA [Act]¹³.

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.

10. Reclamation and CVP contractors will comply with all applicable opinions related to the CVP. 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.

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.

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.

F. Commitments Associated with Conservation Programs

Comprehensive Mapping and Land Use Monitoring and Reporting Program

- Monitoring will be used to assess the condition and impacts of Reclamation actions on listed species. Reclamation and the Service are actively developing a monitoring strategy based on the comprehensive mapping program. The land cover database for year 2000, described in Phase III, will be revisited every 5 years for monitoring purposes.
- The Comprehensive Mapping Program will be implemented immediately to test and track, for the purpose of validating over the life of the project, the assumptions made in this biological opinion that the baselines of the species in Appendix B are stable or increasing.
- For any species affected by the CVP that are continuing to decline, the Service and Reclamation will immediately assess critical needs for the species and determine whether it is appropriate to expand the Conservation Program or implement other *conservation measures*. Any native habitat converted to agricultural or municipal/industrial use within the water service area without prior biological surveys, as required by Reclamation prior to the delivery of Reclamation water, will be evaluated to determine what mitigation measures will be required.

¹³ Addressed by the Environmental Commitment Program form.

I. Service and Reclamation Strategy Statement to Ensure Compliance with the Endangered Species Act

7. CVP or CVPIA actions or parts of actions, which *may affect* listed species or for which there is not enough information available to estimate *take* or make a *not likely to adversely affect* determination, will receive future tiered analysis and consultation. Reclamation or the Service will provide to the Service's SFWO Endangered Species Division, dependent on lead agency status, clear descriptions of proposed CVP or CVPIA actions, specific areas that may be affected directly or indirectly by these actions, the manner in which the actions *may affect* any listed species or designated *critical habitat*, and other relevant reports and information. Reclamation and the Service will also identify any and all interrelated and interdependent actions and measures related to the proposed CVP or CVPIA action. In those situations where the lead agency, or the Service's SFWO Endangered Species Division, determines that an action *may affect* listed species or may adversely modify designated *critical habitat*, Reclamation and/or the Service will initiate informal or formal consultation as appropriate.

8. Reclamation and the Service will work together to develop means to more effectively facilitate ESA compliance through the coordination of activities and commitments discussed in this Project Description. This coordination will include establishment of a process within 3 months of this biological opinion that will provide necessary information to the Service's SFWO Endangered Species Division in situations where a determination of *no affect* has been made, sufficiently in advance, to enable the Service's review.

13. Reclamation will establish a tracking program to assure conditions necessary for compliance with ESA are met within areas affected by the delivery of CVP water. Where Reclamation and/or the Service believe there are *adverse affects* on listed species, a conservation strategy will be required to be in place for the district or area to receive the contract water. The types of strategies that could be accepted are: *Habitat Conservation Planning*, as described in Section 10(a) of the ESA; requirements resulting from a Section 7 consultation, programmatic land management actions that include protection of listed and proposed species, implementation of site specific *conservation measures*, 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. Other actions that include components of the above strategies could also be accepted.

Appendix C.

Cross Valley CVP Contract Service Area Boundaries

Figure 1. Hills Valley CVP Service Area Boundary

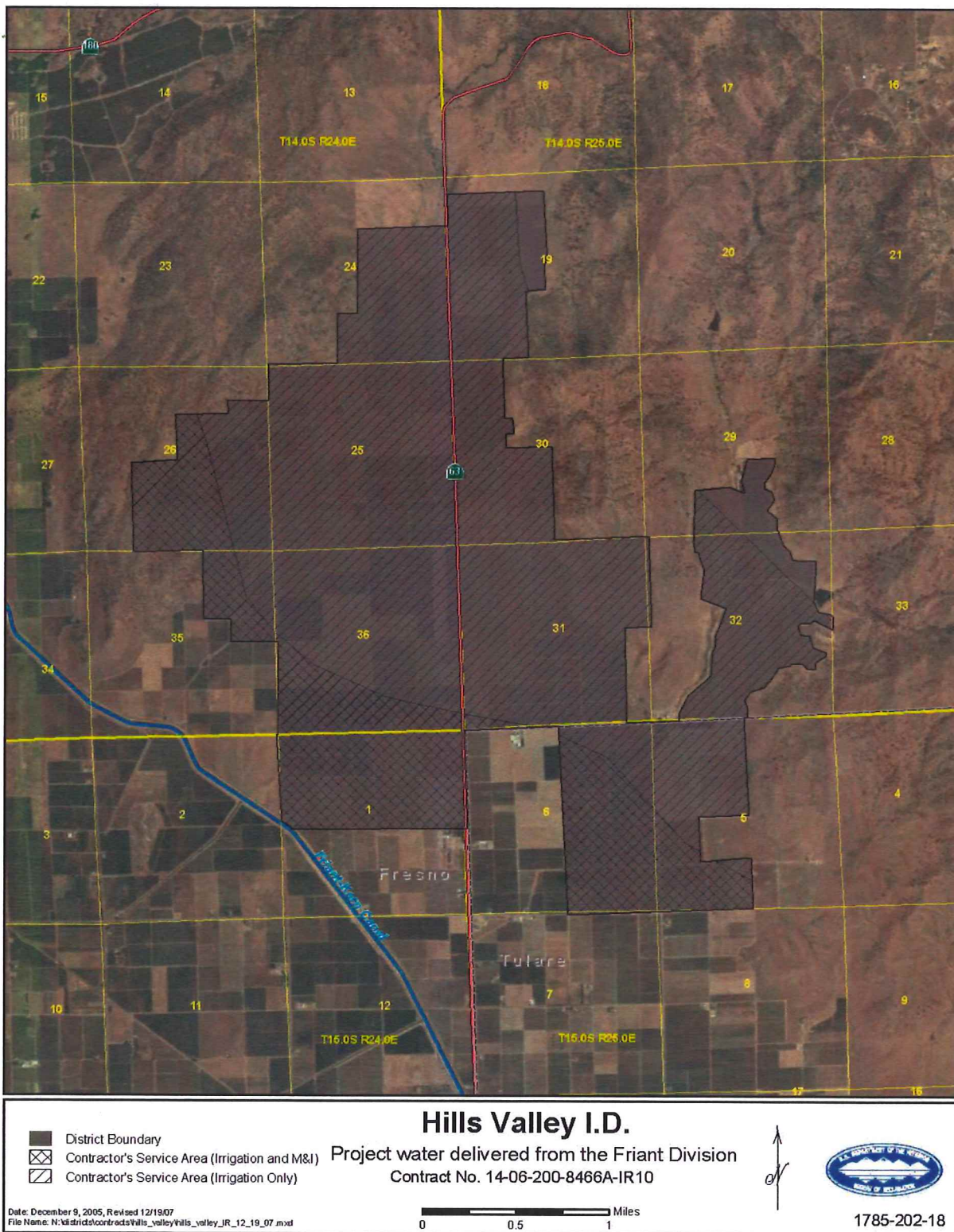


Figure 2. Kern Tulare Water District CVP Service Area Boundary

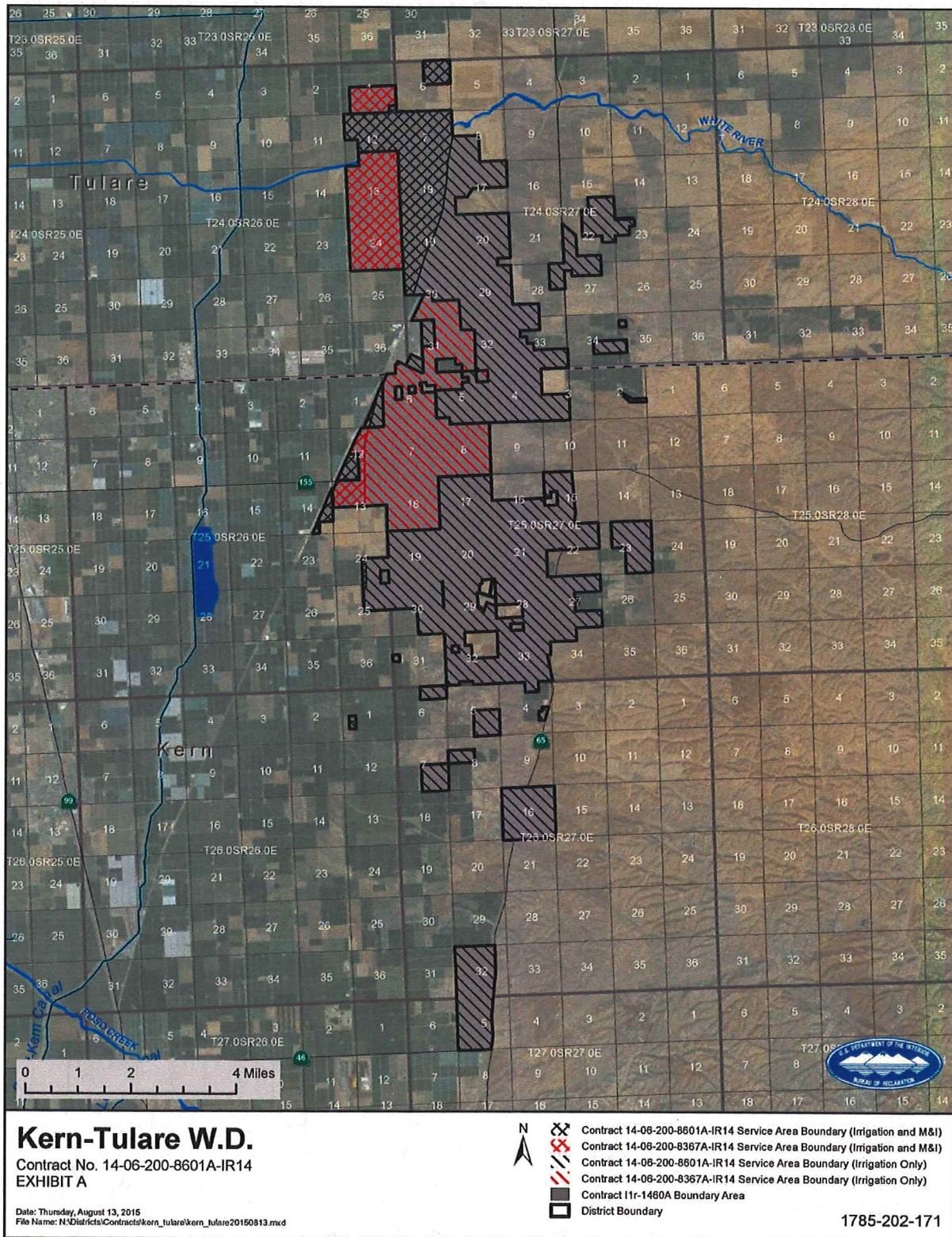


Figure 3. Lower Tule River Irrigation District CVP Contract Service Area Boundary

