

Draft Environmental Assessment

Oak Flat Water District and Del Puerto Water District Long-Term Water Exchange

EA-16-043

Mission Statements

The Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Contents

	Page
Section 1 Introduction	1
1.1 Background	
1.2 Need for the Proposed Action	
Section 2 Alternatives Including the Proposed Action	
2.1 No Action Alternative	
2.2 Proposed Action	
2.2.1 Environmental Commitments	
Section 3 Affected Environment and Environmental Consequences	
3.1 Resources Eliminated from Further Analysis	
3.2 Biological Resources	
3.2.1 Affected Environment	
3.2.2 Environmental Consequences	8
3.3 Water Resources	
3.3.1 Affected Environment	9
3.3.2 Environmental Consequences	9
Section 4 Consultation and Coordination	
4.1 Public Review Period	
4.2 List of Agencies and Persons Consulted	11
Section 5 References	
Figure 1 Proposed Action Area	2
Table 1 Environmental Protection Measures and Commitments	4
Table 2 Resources Eliminated from Further Analysis	5
Appendix A Reclamation's Cultural Resources Determination	

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Section 1 Introduction

1.1 Background

In order to provide a more reliable water supply, the North of O'Neill Contractors¹ requested a long-term exchange agreement with the Bureau of Reclamation (Reclamation) and the California Department of Water Resources (DWR) for conveyance of their Central Valley Project (CVP) water supplies. Reclamation analyzed the proposed long-term exchange agreements in Environmental Assessment (EA)-15-009 and a Finding of No Significant (FONSI) was signed on June 16, 2015 (Reclamation 2015). FONSI/EA-15-009 is hereby incorporated by reference.

Del Puerto Water District (Del Puerto) is one of the North of O'Neill Contractors analyzed in EA-15-009. Since 2014, DWR has facilitated the delivery of CVP water to Del Puerto via an exchange with Reclamation. Exchanged water is conveyed to some of Del Puerto's lands located adjacent to the California Aqueduct through Oak Flat Water District's (Oak Flat) existing State Water Project (SWP) turnouts and facilities.

The proposed exchange analyzed in EA-15-009 for Del Puerto and Oak Flat included exchange of up to 3,966 acre-feet (AF) per year of CVP and SWP water delivered solely via the California Aqueduct. However, Oak Flat and Del Puerto share common landowners that receive deliveries from the California Aqueduct and the Delta-Mendota Canal. In order to better manage water supplies, Del Puerto and Oak Flat have requested approval from Reclamation to exchange available water supplies through the Delta-Mendota Canal as well as the California Aqueduct.

1.2 Need for the Proposed Action

Del Puerto and Oak Flat have a need to maximize available water supplies for their customers, including common landowners. The purpose of the Proposed Action is to provide a mechanism for exchange of water supplies between the Districts using available conveyance infrastructure (see Figure 1).

¹ Byron Bethany Irrigation District (as service provider for Musco Family Olive Company), U.S. Department of Veteran's Affairs San Joaquin Valley National Cemetery, and Del Puerto are three CVP contractors located south of the Harvey O. Banks Pumping Plant and north of O'Neill Forebay, collectively referred to as North of O'Neill Contractors.

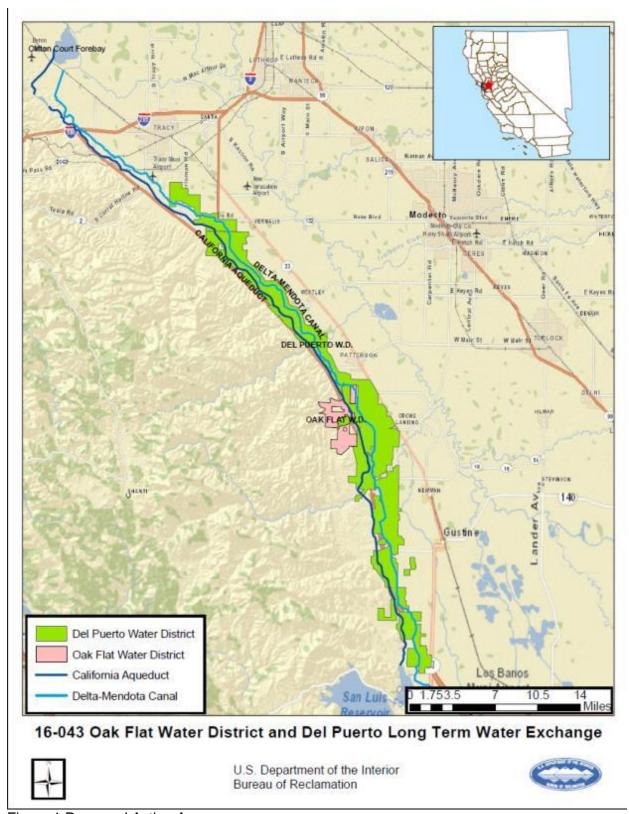


Figure 1 Proposed Action Area

Section 2 Alternatives Including the Proposed Action

This EA considers two possible actions: the No Action Alternative and the Proposed Action. The No Action Alternative reflects future conditions without the Proposed Action and serves as a basis of comparison for determining potential effects to the human environment.

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not approve long-term exchange agreements (through February 28, 2030) between DWR, Del Puerto, and Oak Flat that would allow the exchange of up to 3,000 AF per year of CVP and SWP supplies between the Districts utilizing the California Aqueduct and the Delta-Mendota Canal. Del Puerto would continue to exchange water and utilize Oak Flat's turnouts off of the California Aqueduct for delivery to lands adjacent to the California Aqueduct as analyzed in EA-15-009.

2.2 Proposed Action

Reclamation proposes to approve long-term exchange agreements (through February 28, 2030) between DWR, Del Puerto, and Oak Flat that would allow the exchange of up to 3,000 AF per year of CVP and SWP supplies between the Districts utilizing the California Aqueduct and the Delta-Mendota Canal.

Under the exchange agreements, up to 1,000 AF per year of Del Puerto's available CVP water supplies would be pumped by DWR through the Banks Pumping Plant and delivered through Oak Flat's SWP turnouts on the California Aqueduct to lands within Del Puerto and Oak Flat. In exchange, up to 1,000 AF per year of Oak Flat's available SWP supplies would be pumped by Reclamation at the Jones Pumping Plant and delivered through CVP turnouts on the Delta Mendota Canal to lands within Del Puerto.

In addition to the exchange above, Oak Flat and Del Puerto propose an even exchange to allow delivery of up to 2,000 AF per year of Del Puerto's available CVP water to lands within Del Puerto located adjacent to the California Aqueduct. Under this exchange agreement, Reclamation would enter into an agreement with DWR to deliver SWP water through SWP facilities to Oak for delivery to Del Puerto. In exchange, Reclamation would deliver an equal amount of CVP water pumped at the Jones Pumping Plant and/or Banks Pumping Plant under Joint Point to DWR at O'Neill Forebay. The CVP water provided to DWR at O'Neill would be used within the SWP place of use downstream of O'Neill Forebay.

The proposed exchanges are one-for-one exchanges and there would be no increase in diversions from the Sacramento–San Joaquin River Delta (Delta) by either DWR or Reclamation as a result

of the exchanges. There will be no increase in total deliveries to Del Puerto or Oak Flat as each would exchange available water supplies allocated by the CVP and SWP.

Del Puerto is located outside the SWP authorized Place of Use. In addition, the Proposed Action would deliver CVP water outside the CVP authorized Place of Use to SWP contractors loavted south of O'Neill Forebay. As such, Reclamation and DWR will be jointly filing a Petition for Long-term Change in Place of Use with the State Water Resources Control Board. A temporary one-year change in Place of Use was approved by the State Water Resources Control Board in 2015 that allowed up to 3,000 AF of CVP and SWP water supplies to be exchanged between Del Puerto and Oak Flat utilizing the Delta-Mendota Canal and the California Aqueduct. Once this expires, exchanges would only be implemented when a change in Place of Use is in effect.

2.2.1 Environmental Commitments

Reclamation, DWR, Del Puerto and Oak Flat shall implement the environmental protection measures included in Table 1 to avoid and/or reduce environmental consequences associated with the Proposed Action.

Table 1 Environmental Protection Measures and Commitments

Resource	Protection Measure
Water Resources	The Proposed Action would not affect CVP or SWP operations; all supplies would be previously scheduled for delivery points south-of-Delta, and do not require additional Delta exports.
Water Resources	The water would only be used for beneficial purposes and in accordance with Federal Reclamation law and guidelines.
Various Resources	The water would not be used to place untilled or new lands into production, or to convert undeveloped land to other uses.
Various Resources	No new construction or modification of existing facilities may occur in order to complete the Proposed Action.
Various Resources	The Proposed Action cannot alter the flow regime of natural waterways or natural watercourses such as rivers, streams, creeks, ponds, pools, wetlands, etc., so as to have a detrimental effect on fish or wildlife or their habitats.

Environmental consequences for resource areas assume the measures specified would be fully implemented. Copies of all reports would be submitted to Reclamation.

Section 3 Affected Environment and Environmental Consequences

This section identifies the potentially affected environment and the environmental consequences involved with the Proposed Action and the No Action Alternative, in addition to environmental trends and conditions that currently exist.

The affected environment covered in this EA is the same as described in EA-15-009. Rather than repeat the same information that has been incorporated by reference into this document, the affected environment and environmental consequences section in this EA will focus on those areas that have changed. This includes the exchange of up to 3,000 AF per year of Del Puerto and Oak Flat's available CVP and SWP water supplies, respectively, the use of the Delta-Mendota Canal, and the delivery of the exchanged water throughout both water districts' service areas rather than to just Del Puerto lands adjacent to the California Aqueduct as previously covered in EA-15-009.

3.1 Resources Eliminated from Further Analysis

Reclamation analyzed the affected environment and determined that the Proposed Action did not have the potential to cause direct, indirect, or cumulative adverse effects to the resources listed in Table 2.

Table 2 Resources Eliminated from Further Analysis

Resource	Reason Eliminated
Air Quality	No construction or modification of facilities is proposed. Some pumping would be required to move water under the Proposed Action, but power usage would be within the typical range for the facilities involved. No air emissions are anticipated outside normal operational fluctuations.
Cultural Resources	As the Proposed Action would facilitate the flow of water through existing facilities to existing users and no construction or modification of these facilities would be needed in order to complete the Proposed Action, Reclamation has determined that these activities have no potential to cause effects to historic properties pursuant to 36 Code of Federal Regulations Part 800.3(a)(1). See Appendix A for Reclamation's determination (Appendix A).
Environmental Justice	The Proposed Action would not cause dislocation, changes in employment, or increase flood, drought, or disease nor would it disproportionately impact economically disadvantaged or minority populations.
Global Climate	No construction or modification of facilities is proposed. Some pumping would be required to move water under the Proposed Action, but power usage would be within the typical range for the facilities involved. No greenhouse gas emissions are anticipated outside normal operational fluctuations. Global climate change is expected to have some effect on the snow pack of the Sierra Nevada and the runoff regime. Current data are not yet clear on the hydrologic changes and how they will affect the San Joaquin Valley. CVP water allocations are made dependent on hydrologic conditions and environmental requirements. Since Reclamation operations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.

Resource	Reason Eliminated
Indian Sacred Sites	The Proposed Action would not limit access to ceremonial use of Indian Sacred Sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites. Therefore, there would be no impacts to Indian Sacred Sites as a result of the Proposed Action.
Indian Trust Assets	The Proposed Action would not impact Indian Trust Assets as there are none in the Proposed Action area.
Land Use	The exchange of water between DWR and Reclamation would provide a long-term mechanism for Del Puerto and Oak Flat to receive their CVP and SWP water supply. Exchanged water would be used for existing municipal and industrial (M&I) and agricultural purposes. No conversion of undeveloped/native land is proposed.
Socioeconomic Resources	The exchange of water between Reclamation and DWR would support existing uses within Del Puerto and Oak Flat. As such, no change in socioeconomic conditions is expected from the Proposed Action.

3.2 Biological Resources

3.2.1 Affected Environment

Reclamation requested a species list from the U.S. Fish and Wildlife Service (Service) on September 27, 2016 at https://ecos.fws.gov/ipac/ (Service 2016) for the Action Area (as shown in Figure 1). The California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB) was also queried for records of protected species near the Action Area (CNDDB 2016). The information collected above, in addition to information within Reclamation's files, was combined to determine the likelihood of protected species occurrence within the Action Area. The list from the Service only included the delta smelt and Central Valley steelhead in the fishes section; the other fish species were added in by Reclamation; as with the Central Valley steelhead, the other fish species are administered by the National Marine Fisheries Service, and also use the Delta. As EA-15-009 did not include exchanges utilizing the Delta-Mendota Canal, these species that occur in the Delta are addressed below in Table 3. In addition to the federally listed species listed in Table 3, other migratory birds, such as the Western Burrowing Owl and Swainson's Hawk could forage and nest in the Proposed Action Area.

Table 3 Special Status Species with the Potential to Occur in the Action Area

Species	Status ¹	Effects ²	Occurrence in the Study Area ³
INVERTEBRATES			
Conservancy fairy shrimp Branchinecta conservatio	E, X	NE	Absent. This species is associated with vernal pools, and no vernal pools occur in the Proposed Action Area, which consists of actively farmed lands.
Longhorn fairy shrimp Branchinacta longiantenna	E, X	NE	Absent. This species is associated with vernal pools, and no vernal pools occur in the Proposed Action Area, which consists of actively farmed lands.
Vernal pool fairy shrimp Branchinecta lynchi	T, X	NE	Absent. This species is associated with vernal pools, and no vernal pools occur in the Proposed Action Area, which consists of actively farmed lands.
Valley elderberry longhorn beetle Desmocerus californicus dimorphus	Т, Х	NE	Possible. This species may be present in elderberry bushes growing along Delta waterways. The Proposed Action would not involve any removal/disturbance of vegetation, construction, or conversion of native or fallowed lands.
San Bruno elfin butterfly Incisalia mossii bayensis	E	NE	Absent. This species uses stonecrop as a larval food plant, and only occurs in mountainous areas near San Francisco Bay, outside the Proposed Action Area.

Species	Status ¹	Effects ²	Occurrence in the Study Area ³
Vernal pool tadpole shrimp Lepidurus packardi	E, X	NE	Absent. This species is associated with vernal pools, and no vernal pools occur in the Proposed Action Area, which consists of actively farmed lands.
FISH			
Green sturgeon Acipenser medirostris	T, X, NMFS	NE	Absent. The Proposed Action would not affect the Delta, as there would be no change at all in Delta pumping.
Delta smelt Hypomesus transpacificus	T, X	NE	Absent. The Proposed Action would not affect the Delta, as there would be no change at all in Delta pumping.
Central Valley steelhead Oncorhynchus mykiss	T, X, NMFS	NE	Absent. The Proposed Action would not affect the Delta, as there would be no change at all in Delta pumping.
South Central California steelhead Oncorhynchus mykiss	T, X, NMFS	NE	Absent. The Proposed Action would not affect the Delta, as there would be no change at all in Delta pumping.
Central Valley spring-run Chinook salmon Oncorhynchus tshawytscha	T, X, NMFS	NE	Absent. The Proposed Action would not affect the Delta, as there would be no change at all in Delta pumping.
Winter-run Chinook salmon, Sacramento River Oncorhynchus tshawytscha	E, X, NMFS	NE	Absent. The Proposed Action would not affect the Delta, as there would be no change at all in Delta pumping.
AMPHIBIANS			About This province and the last
California tiger salamander, Central population Ambystoma californiense	T, X	NE	Absent. This species is associated with vernal pools and other seasonal wetlands. These habitats don't occur in the Proposed Action Area, which consists of actively farmed lands
California red-legged frog Rana draytonii	T, X	NE	Absent. Uses ponds and streams in the Coast Mountains, outside the Proposed Action Area; does not occur in farm lands on the valley floor.
REPTILES			
Blunt-nosed leopard lizard Gambelia sila	E	NE	Absent. Blunt-nosed leopard lizards need arid grassland or alkali scrub/saltbush scrub habitat, which is absent from the Proposed Action Area.
Alameda whipsnake Masticophis lateralis euryxanthus	T, X	NE	Absent. Only occurs in Bay Area chaparral habitat, outside the Proposed Action Area.
Giant garter snake Thamnophis gigas	Т	NE	Absent. Habitat consists of streams and sloughs with emergent wetland vegetation. Current range includes the Delta and a small part of its former range in the San Joaquin Valley. This species' habitat does n0ot occur in the Proposed Action Area.
BIRDS			
Least Bell's Vireo Vireo bellii pusillus	E, X, MBTA	NE	Possible. Needs riparian habitat with a well-developed understory for nesting. This habitat is lacking in the Proposed Action Area. However, birds could pass overhead while migrating (there are recent records from the San Joaquin River National Wildlife Refuge and a record from Santa Clara County).
MAMMALS			
Fresno kangaroo rat Dipodomys nitratoides exilis	E, X	NE	Absent. This species historically may have had a range that extended north into part of Merced County, but no longer occurs there.
Riparian woodrat Neotoma fuscipes riparia	E	NE	Absent. Currently, there are only two known populations of this species, one in Caswell Memorial State Park and one in the San Joaquin River National Wildlife Refuge, both outside the Proposed Action Area.
Riparian brush rabbit Sylvilagus bachmani riparius	E	NE	Absent. There are only a few extant occurrences of this species, in the Delta, and along the San Joaquin and Stanislaus Rivers. The Proposed Action would not impact the Delta.
San Joaquin kit fox Vulpes macrotis mutica	E	NE	Present. There are several CNDDB records of this species in and within 10 miles of the Proposed Action

Species	Status ¹	Effects ²	Occurrence in the Study Area ³
			Area. This species can forage within, but not den in agricultural lands when they are near enough to occupied native lands (Warrick et al. 2007).
PLANTS			
Antioch Dunes evening- primrose Oenothera deltoides ssp. howellii	E, X	NE	Absent. At present this species only occurs in a small remnant of its former range outside the Proposed Action Area, particularly at the Antioch Dunes National Wildlife Refuge. It requires unstabilized sand dunes with naked buckwheat (the larval host plant), which is now a rare habitat type.
Large-flowered fiddleneck Amsinckia grandiflora	E, X	NE	Absent. Historically occurred in the northern Diablo Range in grassland habitat, but is now only found in two introduced populations (Lawrence Livermore National Laboratory in southwestern San Joaquin County and Lougher Ridge in Contra Costa County), outside the Proposed Action Area.
Contra Costa goldfields Lasthenia conjugens	E, X	NE	Absent. This species is associated with vernal pools, and no vernal pools occur in the Proposed Action Area, which consists of actively farmed lands.

¹ Status= Listing of Federally special status species

MBTA: Protected under the Migratory Bird Treaty Act

NMFS: Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service

Absent: Species not recorded in Action Area and/or habitat requirements not met

Possible: Species not recorded in or near Action Area, but suitable habitat is present.

Present: Species recorded in or near Action Area and habitat present

3.2.2 Environmental Consequences

No Action

Under the No Action, land uses and Delta pumping would be unchanged. The San Joaquin kit fox could use agricultural lands for foraging, and migratory birds would be unaffected.

Proposed Action

Under the Proposed Action, there would be no construction, no changes in Delta pumping, and water would only be used to support existing land uses. There is no critical habitat in the Proposed Action Area. The San Joaquin kit fox and any migrating birds could continue to use the Proposed Action Area as under the No Action alternative. With the environmental commitments listed in Table 1 and based upon the nature of this Action, Reclamation has determined there would be No Effect to proposed or listed species or critical habitat under the Endangered Species Act of 1973, as amended (16 U.S.C. §1531 et seq.), and there would be no take of birds protected under the Migratory Bird Treaty Act (16 U.S.C. §703 et seq.).

Cumulative Impacts

As the Proposed Action would not impact any federally listed species or migratory birds, it would not contribute cumulatively toward any impacts to those resources.

E: Listed as Endangered

T: Listed as Threatened

X: Critical Habitat designated for this species

² Effects = Effect determination

NE: No Effect from the Proposed Action to Federally listed species

³ Definition Of Occurrence Indicators

3.3 Water Resources

3.3.1 Affected Environment

The affected environment for the Proposed Action covered in this EA includes Del Puerto's entire CVP service area, Oak Flat's SWP service area, and use of the Delta-Mendota Canal. The affected environment covered in EA-15-009 has been incorporated by reference into this EA.

Del Puerto Water District

Del Puerto is a CVP contractor located in San Joaquin, Stanislaus, and Merced Counties with a CVP water service contract that provides up to 140,210 AF per year (Contract No. 14-06-200-922). This contract water supply, which is delivered directly from the Delta-Mendota Canal, is the District's only source of water supply. Privately developed groundwater is available on a limited basis to landowners throughout the District, some of which is stored and/or conveyed under the terms of temporary Warren Act Contracts between Del Puerto and Reclamation. Currently, the only CVP supply used for municipal and industrial purposes is one or two AF per month of landscape water supplied to a small piece of land recently converted to commercial use. All remaining CVP supplies are delivered for agriculture purposes.

Oak Flat Water District

Oak Flat is a SWP contractor located in located south of the City of Patterson in Stanislaus County. Oak Flat is under contract with DWR for its water supply, which is received canal-side from the California Aqueduct. Oak Flat delivers up to 5,700 AF of irrigation water to its agricultural customers annually. Oak Flat does not own a water distribution or drainage system and has no alternate sources of water supply besides its SWP contract.

Delta-Mendota Canal

The Delta-Mendota Canal, the second largest of the CVP waterways, was completed in 1951. It includes a combination of both concrete-lined and earth-lined sections and is about 117 miles in length. The canal transports water from the Jones Pumping Plant to the Mendota Pool that is controlled by a concrete storage dam that was constructed in 1917. The Mendota Pool is the terminus for the Delta-Mendota Canal and is located at the confluence of the San Joaquin River and the North Fork of the Kings River, approximately 30 miles west of the city of Fresno. Capacity in the Delta-Mendota Canal is restricted by the physical limitations of the canal and the pumping limits of the Jones Pumping Plant.

3.3.2 Environmental Consequences

No Action

Under the No Action Alternative, Del Puerto and Oak Flat's available water supplies would not be exchanged and/or delivered via the Delta-Mendota Canal and California Aqueduct for use in their respective service areas. Del Puerto would continue to exchange water and utilize Oak Flat's turnouts of the California Aqueduct for delivery to lands adjacent to the California Aqueduct as analyzed in EA-15-009.

Proposed Action

Under the Proposed Action, Reclamation would coordinate with DWR to acquire a Long-Term Change in Place of Use from the State Water Resources Control Board in order to execute long-

term exchange agreements with DWR, Del Puerto, and Oak Flat. Del Puerto and Oak Flat's common landowners would receive long-term water supply reliability from their existing water supply allocations. No additional water supply would be provided to either District.

The exchange of CVP and SWP water supplies would be one-for-one and would utilize existing facilities for existing purposes. No new infrastructure, modifications of existing facilities, or ground disturbing activities would be required in order to facilitate the exchange. No native or untilled land (fallow for three years or more) would be cultivated with water involved with these actions.

CVP and SWP facilities would not be impacted as the exchanged water will be scheduled and approved by Reclamation and DWR in advance. There would be no increase in diversions from the Delta by either DWR or Reclamation as a result of the exchanges and the Proposed Action would not interfere with Reclamation's obligations to deliver water to other contractors, wetland habitat areas, or for other environmental purposes.

Cumulative Impacts

The Proposed Action and other similar projects would not hinder the normal operations of the CVP or SWP as exchanges would be coordinated by Reclamation and DWR in advance. In addition, there would be no effect on Reclamation's obligation to deliver water to its contractors or to local fish and wildlife habitat as the supplies exchanged would be one-for-one exchanges from existing supplies between DWR and Reclamation. Since the Proposed Action would not involve construction or modification of facilities, nor interfere with CVP or SWP operations, there would be no cumulative impacts to water supplies, existing facilities, or other contractors.

Section 4 Consultation and Coordination

4.1 Public Review Period

Reclamation intends to provide the public with an opportunity to comment on the Draft Finding of No Significant Impact and Draft Environmental Assessment during a 30-day public review period.

4.2 List of Agencies and Persons Consulted

Reclamation and DWR consulted with the State Water Resources Control Board for a temporary change in Place of Use which is in effect through March 28, 2017. Reclamation and the North of O'Neill Contractors are pursuing a long-term change in Place of Use for the proposed exchanges covered in EA-15-009 and this EA.

Reclamation has also coordinated with the following regarding the Proposed Action:

- California Department of Water Resources
- Del Puerto Water District
- Oat Flat Water District

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Section 5 References

Bureau of Reclamation (Reclamation). 2015. Finding Of No Significant Impact/Environmental Assessment North of O'Neill Exchange Agreements Between DWR and Reclamation to Deliver CVP water to North of O'Neill CVP Contractors 15-009. Mid-Pacific Region South-Central California Area Office. Fresno, California.

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Warrick, G. D., H. O. Clark, Ir., P. A. Kelly, D. F. Williams, and B. L. Cypher. 2007. Use of agricultural lands by San Joaquin kit foxes. Western North American Naturalist 67:270-277.