

Final Environmental Assessment

Reclamation Approvals Associated with the Poso Creek Water Company's Multiyear Banking and Transfer Program

EA-17-006



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.

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Section 1 Introduction

The Bureau of Reclamation (Reclamation) provided the public with an opportunity to comment on the Draft Finding of No Significant Impact (FONSI) and Draft Environmental Assessment (EA) between June 2, 2017 and June 16, 2017. No comments were received. Changes between this Final EA and the Draft EA, which are not minor editorial changes, are indicated by vertical lines in the left margin of this document.

1.1 Background

Poso Creek Water Company, LLC (Poso Creek) is a California mutual water company owned and operated by a group of landowners who farm lands in various water districts in the San Joaquin Valley, including the following districts within the Central Valley Project (CVP) place-of-use: San Luis Water District (San Luis), Semitropic Water Storage District (Semitropic), Westlands Water District (Westlands), and Wheeler Ridge-Maricopa Water Storage District (Wheeler Ridge) (Figure 1).

In 2007, Poso Creek entered into a long-term water banking agreement (through December 31, 2035) with Semitropic (Poso Creek Banking Agreement; Appendix A) in which Poso Creek became a banking partner with 60,000 acre-feet (AF) of guaranteed storage capacity in the Semitropic water bank and up to 20,000 AF of firm recovery and recharge capacity in a given year. Since 2007, Poso Creek members have recharged 37,614 AF of CVP water and recovered 19,256 AF of CVP water for transfer and/or exchange amongst the participants of the Poso Creek's exchange program.

Historically, Reclamation annually approved transfers of CVP water supplies from Friant Division CVP Contractors and/or South-of-Delta CVP contractors to Poso Creek. In order to better manage available and future water supplies, Poso Creek has requested long-term approvals of transfers of available CVP water from Reclamation under their proposed multi-year banking and transfer program.

1.2 Need for the Proposed Action

Landowners within Poso Creek need to maximize available water supplies due to fluctuating hydrological years in order to have a reliable water supply to sustain existing agricultural operations. Poso Creek's proposed multi-year banking and transfer program would allow banking of available water supplies during wet hydrological years, such as this one, for use during dry years, such as the recent severe drought experienced throughout California. The purpose of the Proposed Action is to provide Poso Creek members with operational flexibility and facilitate better management of available water supplies to meet existing water supply needs.

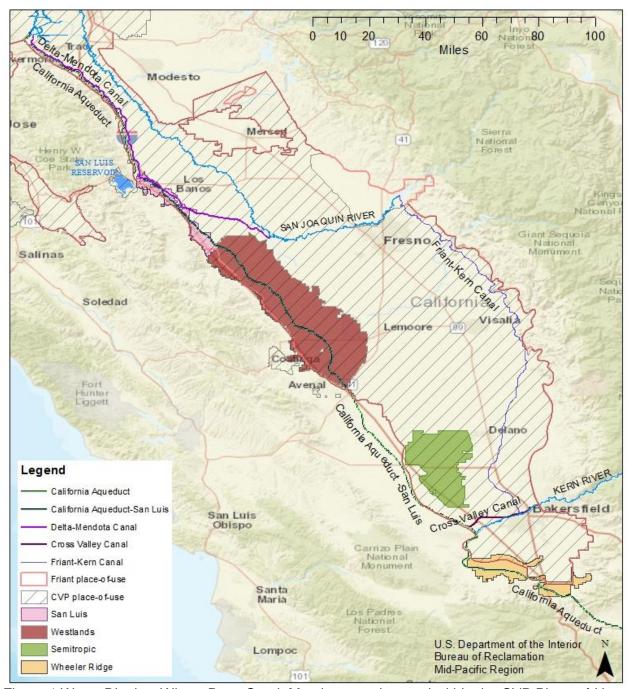


Figure 1 Water Districts Where Poso Creek Members are Located within the CVP Place-of-Use

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 a series of transfers of up to 50,000 AF per year of available CVP water supplies over a 9-year period. Instead, Poso Creek members would need to request separate approvals from Reclamation as each water management action opportunity becomes available.

2.2 Proposed Action

Under the Proposed Action, Reclamation would approve a series of transfers of up to 50,000 AF per year of available CVP water supplies over a 9-year period. Transfers of CVP water would be from CVP contractors to Poso Creek members either for direct agricultural use on member lands located within Westlands, San Luis, Wheeler Ridge, and Semitropic or for banking in Semitropic and/or the Kern Water Bank for later use on member lands within those same districts.

CVP water supplies that may be transferred, exchanged, and/or banked, subject to Reclamation's approval, under the Proposed Action include:

- Friant Division CVP Class 1 and Class 2 water¹, Uncontrolled Season Class 1 and Class 2 water, Section 215 water (un-storable flood flows from Millerton), and San Joaquin River Restoration Program Unreleased Restoration Flows (collectively, "Friant CVP water").
- South-of-Delta CVP agricultural water, Section 215 water (un-storable flood flows from the Delta), San Joaquin River Restoration Program Recaptured/Recirculated Friant CVP water, or any other transferrable CVP water made available from any South-of-Delta CVP contractor (collectively, "South-of-Delta CVP water").

¹ Friant Division Class 1 water is considered as the first 800,000 AF supply of CVP water stored in Millerton Lake, which would be available for delivery from the Friant-Kern Canal and/or Madera Canals as a dependable water supply during each Contract Year. Class 2 water is considered as the next approximate 1,400,000 AF supply of non-storable CVP water which becomes available in addition to the Class 1 supply and, due to the uncertainty of its availability, is considered to be undependable in character and is furnished only if and when it can be made available as determined by Reclamation per Contract Year.

 Cross Valley South-of-Delta CVP water supplies exchanged for Friant Division CVP water (Article 5 exchanges) or any other transferrable CVP water made available from any Cross Valley CVP contractor.

Poso Creek anticipates it would acquire and store up to 20,000 AF of CVP water in Semitropic in any 12-month period. Similarly, Poso Creek anticipates it may recover up to 20,000 AF from Semitropic in any 12-month period pursuant to their banking agreement with Semitropic (Appendix A). The 14,597 AF balance of CVP water that Poso Creek currently has in storage in Semitropic, together with any new CVP water recharged in Semitropic would be incorporated into the amounts available for return to Poso Creek members in Westlands, San Luis, Wheeler Ridge, and Semitropic.

CVP contractors that may transfer and/or exchange amongst the participants of the Poso Creek's exchange program their available CVP water supplies are listed in Table 1 by CVP Division.

Table 1 CVP Contractors that may Transfer and/or "Exchange" CVP water

	<u> </u>
Friant Division CVP Contractors	
Arvin-Edison Water Storage District	Chowchilla Water District
City of Fresno	City of Lindsay
City of Orange Cove	County of Madera
Delano-Earlimart Irrigation District	Exeter Irrigation District
Fresno County Waterworks No. 18	Fresno Irrigation District
Garfield Irrigation District	Gravelly Ford Water District
Hills Valley Irrigation District	International Water District
Ivanhoe Irrigation District	Kaweah Delta Water Conservation District ¹
Kern-Tulare Water District	Lewis Creek Water District
Lindmore Irrigation District	Lindsay-Strathmore Irrigation District
Lower Tule River Irrigation District	Madera Irrigation District
Orange Cove Irrigation District	Porterville Irrigation District
Saucelito Irrigation District	Shafter-Wasco Irrigation District
Southern San Joaquin Municipal Utility District	Stone Corral Irrigation District
Tea Pot Dome Water District	Terra Bella Irrigation District
Tri-Valley Water District	Tulare Irrigation District
Cross Valley CVP Contractors	
County of Fresno ²	County of Tulare ³
Hills Valley Irrigation District	Kern-Tulare Water District ⁴
Lower Tule River Irrigation District	Pixley Irrigation District
Tri-Valley water District	
Delta Division CVP Contractors	
Banta Carbona Irrigation District	Byron-Bethany Irrigation District
City of Tracy	Coelho Family Trust
Del Puerto Water District	Eagle Field Water District
Fresno Slough Water District	James Irrigation District
Laguna Water District	Mercy Springs Water District
Oro Loma Water District	Pajaro Valley Water Management Agency
Panoche Water District	Patterson Water District
Reclamation District No. 1606	San Luis Water District
Tranquillity Irrigation District	Tranquillity Public Utility District
West Stanislaus Irrigation District	The West Side Irrigation District
San Felipe Division CVP Contractors	
San Benito County Water District	Santa Clara Valley Water District
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San Luis Unit (West San Joaquin Division) CVP Contractors	
City of Avenal	City of Coalinga
City of Huron	Panoche Water District
Pacheco Water District	San Luis Water District
Westlands Water District	

¹Kaweah Delta Water Conservation District is comprised of four districts: Lakeside Irrigation Water District, Kings County Water District, Corcoran Irrigation District, and Tulare Irrigation District.

2.2.1 Required Conveyance

Conveyance of water under the Proposed Action would occur through existing facilities. No construction or modification of facilities would be needed in order to complete the Proposed Action. Depending upon the source of the water, one of several delivery paths will be required to effectuate the transfers and/or exchanges as well as return of banked water. The most commonly expected water sources and related conveyance methodologies is described below.

CVP Water Conveyed to Wheeler Ridge-Maricopa Water Storage District

CVP water acquired by Poso Creek could be delivered to Wheeler Ridge in the following ways as shown in Figure 2:

- South-of-Delta CVP water could be delivered to Wheeler Ridge directly from its turnouts
 off the California Aqueduct. The South-of-Delta CVP water would either be directly
 used for agricultural purposes on Poso Creek member lands or banked in the Kern Water
 Bank for later recovery and use.
- Cross Valley Contractors South-of-Delta CVP water that is exchanged between districts
 for Friant CVP water could be conveyed to the California Aqueduct via the Friant-Kern
 Canal and the Cross Valley Canal for delivery to Wheeler Ridge. The Friant CVP water
 would either be directly used for agricultural purposes on Poso Creek member lands or
 banked in the Kern Water Bank for later recovery and use.

Ten percent of all CVP water banked in the Kern Water Bank would remain within the bank for assumed losses.

CVP Water Conveyed to Semitropic Water Storage District

CVP water acquired by Poso Creek could be delivered to Semitropic in the following ways as shown in Figure 2:

Friant CVP water could be delivered to North Kern Water Storage District (North Kern) or Shafter-Wasco Irrigation District (Shafter-Wasco) directly from their turnouts off the Friant-Kern Canal and conveyed via their internal distribution systems to Semitropic. The Friant CVP water would either be directly used for agricultural purposes on Poso Creek member lands or banked in Semitropic for later recovery and use.

²Including its subcontractors: Fresno County Service Areas #5, #10, and #14 and Fresno County Water Works #34. ³Including its subcontractors: Alpaugh Irrigation District, Atwell Island Water District, City of Lindsay, Smallwood Vineyards, Hills Valley Irrigation District, Saucelito Irrigation District, Stone Corral Irrigation District, Strathmore Public Utilities District, Styrotek, Inc., and City of Visalia.

⁴Previously combined with Rag Gulch Water District

- Friant CVP water could be delivered off the Friant-Kern Canal to Poso Creek Wasteway and conveyed in Poso Creek, less conveyance losses in the creek as applicable, to the Pond-Poso Canal. From the Pond-Poso Canal, Friant CVP water would enter Semitropic for banking and/or delivered for irrigation purposes.
- South-of-Delta CVP water, including Cross Valley Contractors South-of-Delta CVP
 water exchanged between districts for Friant CVP water, could be delivered to
 Semitropic directly from its turnouts off the California Aqueduct. The South-of-Delta
 CVP water would either be directly used for agricultural purposes on Poso Creek member
 lands or banked in Semitropic for later recovery and use.
- Cross Valley Contractors South-of-Delta CVP water that is exchanged between districts
 for Friant CVP water could be conveyed to the California Aqueduct via the Friant-Kern
 Canal and the Cross Valley Canal for delivery to Semitropic. The Friant CVP water
 would either be directly used for agricultural purposes on Poso Creek member lands or
 banked in Semitropic for later recovery and use.
- San Joaquin River Restoration Program Recaptured/Recirculated Friant CVP water could be delivered directly to Semitropic from the San Luis Reservoir via the California Aqueduct. The Recaptured/Recirculated Friant CVP water would either be directly used for agricultural purposes on Poso Creek member lands or banked in Semitropic for later recovery and use.
- If other Semitropic banking partners² request a return of previously banked water from Semitropic, and Delano-Earlimart Irrigation District (Delano-Earlimart), Kern-Tulare Water District (Kern-Tulare), and/or Shafter-Wasco have CVP water available, the banking partner could take delivery of the Friant CVP water, and Delano-Earlimart, Kern-Tulare, and/or Shafter-Wasco would transfer a like amount of previously banked water in Semitropic to Poso Creek for later recovery from the bank.

CVP water delivered to Semitropic's spreading facilities, or Semitropic's in lieu banking program (i.e., any water delivered to non-Poso Creek member lands for existing agricultural purposes would be credited to Poso Creek for later recovery from Semitropic). Ten percent of all CVP water banked in Semitropic would remain within the bank for assumed losses.

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² See Appendix A for list of original banking partners and those in the Stored Water Recovery Unit.

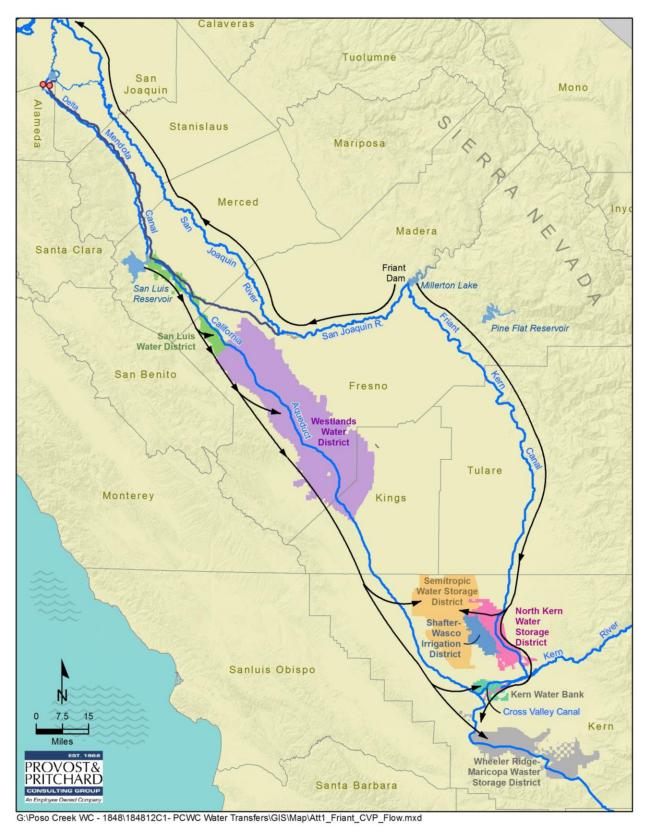


Figure 2 Generalized Flow Path of CVP Water under the Proposed Action

Direct Recovery of Banked CVP Water in Kern Water Bank

Return of previously banked CVP water in Semitropic could be sent to Wheeler Ridge from the Cross Valley Canal to the California Aqueduct, as shown in Figure 2.

Direct Recovery of Banked CVP Water in Semitropic Water Storage District

Direct return of previously banked CVP water in Semitropic could be done in the following ways as shown in Figure 2:

- Previously banked CVP water could be extracted and used for agricultural purposes on Poso Creek member lands located in Semitropic.
- Previously banked CVP water could be returned to Poso Creek members located downstream of Semitropic (e.g., Wheeler Ridge) by extracting banked water and directly conveying it downstream via the California Aqueduct.

Recovery of Banked CVP Water via "Exchange"

As there are currently no facilities that could reverse pump water up the California Aqueduct, return of previously banked CVP water to districts located upstream of Kern Water Bank or Semitropic (i.e., San Luis and Westlands) would occur via exchange among districts. Should facilities be installed during the course of the Proposed Action, it could be possible that previously banked CVP water would move up the California Aqueduct for direct delivery rather than exchange.

The ability to transfer previously banked CVP water can be limited by a number of factors at any given time, including State Water Project (SWP) priorities (i.e. pumping capacity, operational constraints, allocated water deliveries etc.), the exchange participants' priorities (including demand and delivery capacity), and CVP priorities. Therefore, the exchange of CVP water would likely be at the discretion of mutually agreeable terms between Poso Creek, the exchange participant, and the applicable recipient district. Further, such exchanges may be subject to concurrence from Kern County Water Agency, approval by the California Department of Water Resources (DWR), and subject to scheduling approval by Reclamation.

Generally, Semitropic or Wheeler Ridge would serve as the exchange participant; however, other exchange participants, such as CVP or SWP contractors, may participate as well. Exchanges would be accomplished by having an exchange participant take delivery of previously banked CVP water for use in their service area, in exchange for an agreed amount of the exchange participant's water held in San Luis Reservoir. The exchange participant's water would then either be directly delivered to the recipient districts located downstream of San Luis Reservoir (e.g., Westlands or San Luis) or held in San Luis Reservoir for later delivery.

Any use of State facilities will require coordination and approval by DWR. Copies of approvals will be provided to Reclamation.

Any use of the Cross Valley Canal will require coordination and approval by the Kern County Water Agency. All approvals will be provided to Reclamation.

2.2.1 Environmental Commitments

All participants in the Proposed Action shall implement the environmental protection measures included in Table 1 to avoid and/or reduce environmental consequences associated with the Proposed Action.

Table 2 Environmental Protection Measures

Resource	Environmental Commitments
Biological Resources	The water would not be used to place untilled or native lands into production, or to convert
	lands that have been fallowed or untilled for three or more years.
Biological 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.
Water Resources	The water would be used for beneficial purposes and in accordance with Federal
	Reclamation law and guidelines as applicable.
Water Resources	No CVP water would be used outside of the authorized Place of Use without prior approval
	from the State Water Resources Control Board and notification to Reclamation.
Various Resources	No land conversions would occur as a result of the Proposed Action.

Environmental consequences for resource areas assume the measures specified would be fully implemented.

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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.

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 3.

Table 3 Resources Eliminated from Further Analysis

Resource	Reason Eliminated
Air Quality	The Proposed Action does not include construction of new facilities or modification to existing facilities. While pumping would be necessary to deliver CVP water, no additional electrical production beyond baseline conditions would occur. No impacts to air quality would occur and a determination of general conformity under the Clean Air Act is not required.
Cultural Resources	The Proposed Action would facilitate the flow of water through existing facilities to existing users. As no construction or modification of 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 CFR Part 800.3(a)(1). See Appendix B for Reclamation's determination.
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	The Proposed Action does not include construction of new facilities or modification to existing facilities. While pumping would be necessary to deliver CVP water, no additional electrical production beyond baseline conditions would occur. As such, there would be no additional impacts to global climate change. Global climate change is expected to have some effect on the snow pack of the Sierra Nevada and the runoff regime. It is anticipated that climate change would result in more short-duration high-rainfall events and less snowpack runoff in the winter and early spring months by 2030 compared to recent historical conditions (Reclamation 2016c). However, the effects of this are long-term and are not expected to impact CVP operations within the two-year window of this action. Further, CVP water allocations are made dependent on hydrologic conditions and environmental requirements. Since Reclamation operations and allocations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.
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.

3.2 Biological Resources

3.2.1 Affected Environment

Reclamation requested official species lists for the Proposed Action Area from the U.S. Fish and Wildlife Service (Service) Sacramento, Bay-Delta, and Ventura offices on April 28, 2017 by accessing the Service's website: https://ecos.fws.gov/ipac/ (Consultation Codes: 08ESMF00-2017-SLI-1914, 08FBDT00-2017-SLI-0168, and 08EVEN00-2071-E-00786). Reclamation further queried the California Department of Fish and Wildlife, California Natural Diversity Database (CNDDB) for records of protected species within 10 miles of the Proposed Action Area (CNDDB 2017). This information, in addition to other information within Reclamation's files was combined to create the following list (Table 4).

Table 4 Federally Listed Threatened and Endangered Species

Species	Status ¹	Effects ²	Potential to occur and summary basis for ESA determination ³
Amphibians			
California red-legged frog Rana draytonii	т, х	NE	Present. There are CNDDB ⁴ records of this species in the Proposed Action Area and Designated Critical Habitat for this species is present within the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
California tiger salamander Ambystoma californiense	т, х	NE	Present. There are CNDDB records of this species in the Proposed Action Area and Designated Critical Habitat for this species is present within the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Santa Cruz long-toed salamander Ambystoma macrodactylum croceum	E	NE	Present. There are CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
Birds			
California clapper rail Rallus longirostris obsoletus	E	NE	Present. There are CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
California condor Gymnogyps californianus	E, X	NE	Possible. There is designated Critical Habitat for this species in the Proposed Action Area, and there are CNDDB records of this species near the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.

Species	Status ¹	Effects ²	Potential to occur and summary basis for ESA determination ³
California least tern Sterna antillarum browni	E	NE	Present. There are CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
Least Bell's vireo Vireo bellii pusillus	E, X	NE	Present. There are CNDDB records of this species in the Proposed Action Area; however there is no designated Critical Habitat for this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Marbled murrelet Brachyramphus marmoratus	T, X	NE	Possible. There are records of this species near the Proposed Action Area, but there is no designated Critical Habitat for this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Southwestern willow flycatcher Empidonax traillii extimus	E, X	NE	Unlikely. There are no records of this species in or near the Proposed Action Area, and there is no designated Critical Habitat for this species within the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Western snowy plover Charadrius alexandrinus nivosus	Т, Х	NE	Present. There are CNDDB records of this species in and near the Proposed Action Area, and designated Critical Habitat for this species is present within the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Yellow-billed cuckoo Coccyzus americanus	T, PX	NE	Unlikely. This species may have been extirpated from the Proposed Action Area. There is no Designated or Proposed Critical Habitat for this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species. There would be <i>No Effect</i> to this species or its proposed Critical Habitat.
Fish			About This appaign does not assure in the Draws of
Delta smelt Hypomesus transpacificus	T, X	NE	Absent. This species does not occur in the Proposed Action Area. Designated Critical Habitat for this species overlaps the Proposed Action Area; however, the primary constrituent elements of the Critical Habitat are not present within the Proposed Action Area. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Steelhead (Northern CA DPS) Oncorhynchus mykiss	T, X	NE	Absent. This species does not occur in the Proposed Action Area. Designated Critical Habitat for this species overlaps the Proposed Action Area; however, the primary constrituent elements of the Critical Habitat are not present within the Proposed Action Area. There would be No Effect to this species or its

Species	Status ¹	Effects ²	Potential to occur and summary basis for ESA determination ³
Tidewater goby Eucyclogobius newberryi Invertebrates	E, X	NE	designated Critical Habitat. Absent. This species does not occur in waterways within the Proposed Action Area and designated Critical Habitat for this species is not present within waterways included in the Proposed Action Area. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Invertebrates			Breaget There are CNDDD records of this appaies in
Bay checkerspot butterfly Euphydryas editha bayensis	т, х	NE	Present. There are CNDDB records of this species in the Proposed Action Area and designated Critical Habitat for this species is present within the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Ohlone tiger beetle Cicindela ohlone	Е	NE	Unlikely. There are CNDDB records of this species near the Proposed Action Area; however suitable habitat for this species is lacking in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
San Bruno elfin butterfly Callophrys mossii bayensis	Е	NE	Absent. This species does not occur within the Proposed Action Area. There would be <i>No Effect</i> to this species.
Valley elderberry longhorn beetle Desmocerus californicus dimorphus	Т, Х	NE	Present. There are CNDDB records of this species in the Proposed Action Area; however, there is no designated Critical Habitat for this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Zayante band-winged grasshopper Trimerotropis infantilis	E, X	NE	Absent. This species, and designated Critical Habitat for this species, do not occur within the Proposed Action Area. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Conservancy fairy shrimp Branchinecta conservatio	E, X	NE	Possible. There are CNDDB records of this species near the Proposed Action Area. There is no designated Critical Habitat for this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable vernal pool habitat for this species. There would be No Effect to this species or its designated Critical Habitat.
Vernal pool fairy shrimp Branchinecta lynchi	т, х	NE	Present. There are CNDDB records of this species in the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable vernal pool habitat for this species. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Vernal pool tadpole shrimp Lepidurus packardi	E, X	NE	Present. There are CNDDB records of this species in the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable vernal pool habitat for this species. There would be No Effect to this species

Species	Status ¹	Effects ²	Potential to occur and summary basis for ESA determination ³
			or its designated Critical Habitat.
Mammals			
Buena Vista Lake ornate shrew Sorex ornatus relictus	E, X	NE	Present. There are CNDDB records of this species in the Proposed Action Area, but no designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Fresno kangaroo rat Dipodomys nitratoides exilis	E, X	NE	Present. There are CNDDB records of this species in the Proposed Action Area, but no designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Giant kangaroo rat Dipodomys ingens	E	NE	Present. There are CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
Riparian brush rabbit Sylvilagus bachmani riparius	E	NE	Unlikely. There are CNDDB records of this species near the Proposed Action Area; however suitable habitat for this species is lacking the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
Riparian woodrat Neotoma fuscipes riparia	E	NE	Unlikely. There are CNDDB records of this species near the Proposed Action Area; however suitable habitat for this species is lacking the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
Salt marsh harvest mouse Reithrodontomys raviventris	E	NE	Present. There are CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
San Joaquin kit fox Vulpes macrotis mutica	E	NE	Present. There are multiple CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be No Effect to this species.
Tipton kangaroo rat Dipodomys nitratoides nitratoides	E	NE	Present. There are multiple CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be No Effect to this species.

Species	Status ¹	Effects ²	Potential to occur and summary basis for ESA determination ³
Southern sea otter Enhydra lutris nereis	Т	NE	Absent. This species does not occur within the Proposed Action Area. There would be No Effect to this species.
Plant			
Antioch dunes evening-primrose Oenothera deltoids ssp. howellii	E, X	NE	Absent. This species, and designated Critical Habitat for this species, do not occur within the Proposed Action Area. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Bakersfield cactus Opuntia treleasei	E	NE	Present. There are CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
Ben Lomond spineflower Chorizanthe pungens var. hartwegiana	E	NE	Absent. This species does not occur within the Proposed Action Area. There would be No Effect to this species.
Ben Lomond wallflower Erysimum teretifolium	E	NE	Absent. This species does not occur within the Proposed Action Area. There would be <i>No Effect</i> to this species.
California jewelflower Caulanthus californicus	E	NE	Possible. This species may have been extirpated from the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
California seablite Suaeda californica	Е	NE	Absent. This species does not occur within the Proposed Action Area. There would be No Effect to this species.
Colusa grass Neostapfia colusana	T, X	NE	Absent. This species, and designated Critical Habitat for this species, do not occur within the Proposed Action Area. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Contra Costa goldfields Lasthenia conjugens	E, X	NE	Possible. There are records of this species near the Proposed Action Area, and designated Critical Habitat for this species is present within the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Coyote ceanothus Ceanothus ferrisae	E	NE	Present. There are CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
Fleshy owl's clover Castilleja campestris ssp. succulenta	E, X	NE	Present. There are CNDDB records of this species in the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Fountain thistle Cirsium fontinale var. fontinale	Е	NE	Absent. This species does not occur within the Proposed Action Area. There would be No Effect to this species.

Species	Status ¹	Effects ²	Potential to occur and summary basis for ESA determination ³
Greene's Tuctoria Tuctoria greenei	E, X	NE	Possible. This species may have been extirpated from the Proposed Action Area, but designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Hairy Ocrutt grass Orcuttia pilosa	E, X	NE	Possible. There are CNDDB records of this species near the Proposed Action Area, and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Hartweg's golden sunburst Pseudobahia bahifolia	E	NE	Possible. There are CNDDB records of this species near the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
Hoover's spurge Chamaesyce hooveri	т, х	NE	Possible. There are CNDDB records of this species near the Proposed Action Area, and designated Critical Habitat for this species overlaps the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Keck's Checker-mallow Sidalcea keckii	E, X	NE	Absent. This species does not occur in the Proposed Action Area, and designated Critical Habitat for this species is not present in the Proposed Action Area. There would be <i>No Effect</i> to this species or its Critical Habitat.
Kern mallow Eremalche kernensis	E	NE	Present. There are CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
Large-flowered fiddleneck Amsinckia grandiflora	E, X	NE	Absent. This species does not occur in the Proposed Action Area, and designated Critical Habitat for this species is not present in the Proposed Action Area. There would be <i>No Effect</i> to this species or its Critical Habitat.
Marin dwarf-flax Hesperolinon congestum	Т	NE	Absent. This species does not occur within the Proposed Action Area. There would be <i>No Effect</i> to this species.
Marsh sandwort Arenaria paludicola	E	NE	Absent. This species does not occur within the Proposed Action Area. There would be No Effect to this species.
Menzies' wallflower Erysimum menziesii	E	NE	Absent. This species does not occur within the Proposed Action Area. There would be <i>No Effect</i> to this species.

Species	Status ¹	Effects ²	Potential to occur and summary basis for ESA determination ³
Metcalf canyon jewelflower Streptanthus albidus ssp. albidus	E	NE	Present. There are CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
Monterey gilia Gilia tenuiflora ssp. Arenaria	E	NE	Present. There is a CNDDB record of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
Monterey spineflower Chorizanthe pungens var. pungens	Т, Х	NE	Present. There are CNDDB records of this species in the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Palmate-bracted bird's beak Cordylanthus palmatus	Е	NE	Absent. This species does not occur in the Proposed Action Area. There would be <i>No Effect</i> to this species.
Robust spineflower Chorizanthe robusta var. robusta	E, X	NE	Present. There are CNDDB records of this species in the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be No Effect to this species or its designated Critical Habitat.
San Benito evening-primrose Camissonia benitensis	Т	NE	Present. There are CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
San Joaquin Orcutt grass Orcuttia inaequalis	т, х	NE	Possible. There are CNDDB records of this species near the Proposed Action Area, and designated Critical Habitat for this species is present within the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
San Joaquin Adobe sunburst Pseudobahia peirsonii	Т	NE	Present. There are CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
San Joaquin wooly-threads Monolopia congdonii	E	NE	Possible. This species may have been extirpated from the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.

Action Area. There would be No Effect to this species found in the Proposed Action Area. There would be No Effect to this species for this species for this species for the Proposed Action Area. There would be No Effect to this species for the Proposed Action Area. There are CNDDB records of this species for the Proposed Action Area. The Proposed Action Area. There would be No Effect to this species for the Proposed Action Area. The Proposed Action Area. There would be No Effect to this species. Santa Cruz cypress Cupressus abramsiana T NE Absent. This species does not occur in the Proposed Action Area. There would be No Effect to this species for this species. Santa Cruz tarplant Holocarpha macradenia T, X NE Absent. This species does not occur in the Proposed Action Area. There would be No Effect to this species for Present. There are CNDDB records of this species for Present. There are CNDDB records of this species for Present. There are CNDDB records of this species for Present. There are CNDDB records of this species for Present. There are CNDDB records of this species for Present. There would be No Effect to this species and would not involve any ground disturbance or construction. There would be No Effect to this species and would not involve any ground disturbance or construction. There would be No Effect to this species and would not involve any ground disturbance or construction. There would be No Effect to this species or its designated Critical Habitat. Absent. This species does not occur in the Proposed Action Area. There would be No Effect to this species is not present in the Proposed Action Area. There would be No Effect to this species is not present in the Proposed Action Area. There would be No Effect to this species is not present in the Proposed Action Area. There would be No Effect to this species in not present in the Proposed Action Area. There would be No Effect to this species is not present in the Proposed Action Area. There would be No Effect to this species in present in the	Species	Status ¹	Effects ²	Potential to occur and summary basis for ESA determination ³
Eriophyllum latilobum E NE Action Area. There would be No Effect to this specie the Proposed Action Area. There would be No Effect to this species. Santa Cruz cyrpress Cupressus abramsiana T NE Absent. This species does not occur in the Proposed Action Area. There would be No Effect to this species the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action would not alter convert any areas of suitable habitat for this species and would not involve any ground sturbance or construction. There would be No Effect to this species and would not involve any ground sturbance or construction. There would be No Effect to this species and would not involve any ground sturbance or construction. There would be No Effect to this species and would not involve any ground sturbance or construction. There would be No Effect to this species and would not involve any ground sturbance or construction. There would be No Effect to this species is proposed Action Area. The would be No Effect to this species or its designated Critical Habitat. Absent. This species does not occur in the Proposed Action Area. There would be No Effect to this species or its designated Critical Habitat. Absent. This species does not occur in the Proposed Action Area. There would be No Effect to this species or its designated Critical Habitat. Absent. This species does not occur in the Proposed Action Area. There would be No Effect to this species or its designated Critical Habitat. Absent. This species does not occur in the Proposed Action Area. There would be No Effect to this species or its designated Critical Habitat. Absent. This species does not occur in the Proposed Action Area. There would be No Effect to this species in the Proposed Action Area. There would be No Effect to this species in the Proposed Action Area. There would be No Effect to this species or its	Acanthomintha obovata ssp.	E	NE	Absent. This species does not occur in the Proposed Action Area. There would be <i>No Effect</i> to this species.
Santa Clara Valley dudleya E NE		Е	NE	Absent. This species does not occur in the Proposed Action Area. There would be <i>No Effect</i> to this species.
Action Area. There would be No Effect to this species for its designated Critical Habitat.		E	NE	would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i>
Santa Cruz tarplant Holocarpha macradenia T, X NE T, X NE T, X NE NE NE NE NE NE NE NE NE N		Т	NE	Absent. This species does not occur in the Proposed Action Area. There would be <i>No Effect</i> to this species.
Scotts Valley polygonum Polygonum hickmanii E, X NE Action Area, and designated Critical Habitat for this species is not present in the Proposed Action Area There would be No Effect to this species or its designated Critical Habitat. Scotts Valley spineflower Chorizanthe robusta var. hartwegii E, X NE Absent. This species does not occur in the Proposed Action Area, and designated Critical Habitat for this species is not present in the Proposed Action Area There would be No Effect to this species or its designated Critical Habitat. Absent. This species does not occur in the Proposed Action Area, and designated Critical Habitat. Absent. This species does not occur in the Proposed Action Area, and designated Critical Habitat for this species is not present in the Proposed Action Area, and designated Critical Habitat. Springville Clarkia Clarkia springvillensis T NE Absent. This species does not occur in the Proposed Action Area. There would be No Effect to this species designated Critical Habitat. Springville Clarkia Clarkia springvillensis T NE Absent. This species does not occur in the Proposed Action Area. There would be No Effect to this species the Proposed Action Area. There proposed Action Area. The Proposed Action Area. The Proposed Action Area and designated Critical Habitat for this species, and would not involve any ground disturbance or construction. There would be No Effect to this species to this species are area of suitable habitat for this species is present in the Proposed Action Area. The Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species and would not involve any ground disturbance or onvert any areas of suitable habitat for this species and would not involve any ground disturbance or onvert any areas of suitable habitat	Santa Cruz tarplant	т, х	NE	Present. There are CNDDB records of this species in the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be No Effect to this species
Scotts Valley spineflower Chorizanthe robusta var. hartwegii E, X NE Action Area, and designated Critical Habitat for this species is not present in the Proposed Action Area There would be No Effect to this species or its designated Critical Habitat. Showy indian clover Trifolium amoenum E NE NE NE Absent. This species does not occur in the Proposed Action Area, and designated Critical Habitat for this species is not present in the Proposed Action Area. There would be No Effect to this species or its designated Critical Habitat. Springville Clarkia Clarkia springvillensis T NE Absent. This species does not occur in the Proposed Action Area. There would be No Effect to this species or its designated Critical Habitat. Springville Clarkia Clarkia springvillensis F NE NE NE Present. There is a CNDDB record of this species the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species. Present. There are CNDDB records of this species the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area and designated Critical Habitat for this species and would not involve any ground disturbance or convert any areas of suitable habitat for this species and would not involve any ground disturbance or convert any areas of suitable habitat for this species and would not involve any ground disturbance or convert any areas of suitable habitat for this species and would not involve any g		E, X	NE	designated Critical Habitat.
Showy indian clover Trifolium amoenum E NE NE Action Area, and designated Critical Habitat for this species is not present in the Proposed Action Area. There would be No Effect to this species or its designated Critical Habitat. Springville Clarkia Clarkia springvillensis T NE Absent. This species does not occur in the Proposed Action Area. There would be No Effect to this species the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species. Present. There is a CNDDB record of this species the Proposed Action Area and would not involve any ground disturbance or construction. There would be No Entry to this species. Present. There are CNDDB records of this species the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter convert any areas of suitable habitat for this species and would not involve any ground disturbance or convert any areas of suitable habitat for this species and would not involve any ground disturbance or convert any areas of suitable habitat for this species and would not involve any ground disturbance or convert any areas of suitable habitat for this species and would not involve any ground disturbance or convert any areas of suitable habitat for this species and would not involve any ground disturbance or convert any areas of suitable habitat for this species and would not involve any ground disturbance or convert any areas of suitable habitat for this species and would not involve any ground disturbance or convert any areas of suitable habitat for this species and would not involve any ground disturbance or convert any areas of suitable habitat for this species and would not involve any ground disturbance or convert any areas of suitable habitat for this species and would not involve any ground disturbance or convert any areas of suitable habitat for this species and would not involve any ground disturbance or convert any areas of s		E, X	NE	
Clarkia springvillensis Action Area. There would be No Effect to this species the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable hat for this species, and would not involve any ground disturbance or construction. There would be No Ento this species. Present. There is a CNDDB record of this species the Proposed Action Area. The Proposed Action would not involve any ground disturbance or construction. There would be No Ento this species. Present. There are CNDDB records of this species the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter convert any areas of suitable habitat for this species and would not involve any ground disturbance or		E	NE	
the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable hat for this species, and would not involve any ground disturbance or construction. There would be <i>No Ento</i> to this species. Present. There are CNDDB records of this species the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter convert any areas of suitable habitat for this species and would not involve any ground disturbance or		Т	NE	Absent. This species does not occur in the Proposed Action Area. There would be <i>No Effect</i> to this species.
Yadon's piperia Piperia yadonii E, X NE the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter convert any areas of suitable habitat for this specie and would not involve any ground disturbance or	Tiburon paintbrush	E	NE	Present. There is a CNDDB record of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i>
construction. There would be <i>No Effect</i> to this spectrum or its designated Critical Habitat. Reptiles	Piperia yadonii	E, X	NE	Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species

Species	Status ¹	Effects ²	Potential to occur and summary basis for ESA determination ³
Alameda whipsnake Masticophis lateralis euryxanthus	т, х	NE	Present. There are CNDDB records of this species in the Proposed Action Area and designated Critical Habitat for this species is present in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species or its designated Critical Habitat.
Blunt-nosed leopard lizard Gambelia silus	E	NE	Present. There are multiple CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be No Effect to this species.
Giant garter snake Thamnophis gigas	Т	NE	Present. There are CNDDB records of this species in the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.
San Francisco garter snake Thamnophis sirtalis tetraenia	E	NE	Possible. There are CNDDB records of this species near the Proposed Action Area. The Proposed Action would not alter or convert any areas of suitable habitat for this species, and would not involve any ground disturbance or construction. There would be <i>No Effect</i> to this species.

¹ Status = Status of federally protected species protected under the ESA (Endangered Species Act).

- E: Listed as Endangered
- T: Listed as Threatened
- X: Critical Habitat designated for this species
- PX: Critical Habitat proposed for this species
- 2 Effects = ESA Effect determination
- NE: No Effect anticipated from the Proposed Action to federally listed species or designated critical habitat
- 3 Definition of Occurrence Indicators
 - Present: Species recorded in area and suitable habitat present.
 - Possible: Species recorded in area and habitat suboptimal.
 - Unlikely: Species recorded in area but habitat marginal or lacking entirely.
 - Absent: Species not recorded in study area and suitable habitat absent.
- 4 CNDDB 2017

3.2.2 Environmental Consequences

No Action

Under the No Action Alternative, continued transfers of water would be approved on a case-by-case basis. As such, the impacts would be the same as those described under the Proposed Action. There would be No Effect to proposed or listed species or Critical Habitat, and no take of migratory birds.

Proposed Action

The Proposed Action would not involve any construction, changes in water diversions from natural waterways, or changes in land use. The water involved in the Proposed Action would be used to support existing demands, and would not be used to convert fallowed lands or lands that have been untilled for three or more years. No native lands would be cultivated as a result of the Proposed Action. As a result, Reclamation has determined that 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 is not expected to result in any direct or indirect impacts to biological resources, there would be no cumulative impacts.

3.3 Water Resources

3.3.1 Affected Environment

The affected environment includes all conveyance facilities and transferring and receiving districts located in the CVP place-of-use (Figures 1 and 2). Friant Division and Cross Valley CVP Contractors, and their associated conveyance facilities, were previously described in the Friant Division Accelerated Water Transfer Program EA (EA-15-018; Reclamation 2016a), which analyzed the transfer of available Friant Division CVP water supplies between these CVP contractors over a 5-year time period. South-of-Delta CVP Contractors, including Cross Valley Contractors, and their associated conveyance facilities were previously described in the South-of-Delta Accelerated Water Transfer Program EA (EA-14-064; Reclamation 2016b), which analyzed the transfer of available South-of-Delta CVP water supplies between these CVP contractors over a 5-year time period. EA-15-018 and EA-14-064 are incorporated by reference into this EA. Rather than repeating the same information about the CVP contractors and conveyance facilities covered in EA-15-018 and EA-14-064, the affected environmental and environmental consequences section in this EA will focus on the updates or changes.

Poso Creek Members

As described previously, Poso Creek members have lands within Westlands, San Luis, Wheeler Ridge, and Semitropic. These water districts use groundwater as a secondary source when surface water (CVP and/or SWP) supplies are reduced due to hydrology or operational constraints that limit water supplies moving through the Delta. Land subsidence due to withdrawal of groundwater resources has been studied extensively by U.S. Geological Survey (USGS 2017) and DWR (2014) in the area. Areas within the Poso Creek area that may be susceptible to subsidence include sections of the Aqueduct within Westlands (Farr et al. 2017).

San Luis Water District San Luis is a south-of-Delta CVP contractor located in western Merced and Fresno Counties, with a CVP water service contract that provides up to 125,080 AF per year. They receive their water supplies from the Delta via the Delta-Mendota Canal and the San Luis Canal. The total area of San Luis is 64,502 acres with about 31,000 acres irrigated.

Semitropic Water Storage District Semitropic is a SWP contractor located in north-central Kern County in the San Joaquin Valley, about 20 miles northwest of the City of Bakersfield. The total area of Semitropic is 220,000 acres with about 138,000 acres irrigated. As a member of the Kern County Water Agency, Semitropic has a contract for 155,000 AF per year of SWP water. The SWP water is pumped from the Delta and conveyed to Semitropic through the California Aqueduct.

Semitropic has a long-term water storage program designed to recharge groundwater and reduce overdraft, increase operational reliability and flexibility, and optimize the distribution and use of available water resources between Semitropic and potential banking partners. The banking partner's stored water may be pumped from Semitropic's groundwater basin through pumpback facilities into the California Aqueduct for subsequent deliveries.

Westlands Water District Westlands is a south-of-Delta CVP contractor located in western Fresno and Kings Counties, with a CVP service water contract for 1,150,000 AF and contract assignments totaling 46,948 AF. The District encompasses more than 600,000 acres of farmland and serves approximately 600 family-owned farms. CVP water supplies are pumped from the Delta and delivered via the Delta-Mendota Canal and San Luis Canal.

Wheeler Ridge-Maricopa Water Storage District Wheeler Ridge is located in southwest Kern County in the San Joaquin Valley, about 30 miles south of the City of Bakersfield. The total area of Wheeler Ridge is 140,000 acres with about 87,000 acres irrigated.

Wheeler Ridge has a water service contract with the Kern County Water Agency for up to 197,088 AF of SWP water per year. The SWP water is pumped from the Delta and conveyed through the California Aqueduct to Wheeler Ridge.

State Water Project

The SWP is a complex system of reservoirs, pumping and generating plants, and water conveyance facilities, including the California Aqueduct that is operated and maintained by DWR. The principal purpose of the SWP is to supply water to its 29 long-term urban and agricultural water supply contractors (SWP Contractors) in Northern California, the San Francisco Bay Area, the San Joaquin Valley, the Central Coast, and Southern California (DWR 2017).

Kern County Water Agency

Kern County Water Agency holds the master contract with the State of California for delivery of a maximum yearly supply of 1,000,949 AF of SWP water supplies to 21 subcontracting water agencies (referred to as "Member Units") located within Kern County. The agency has access to SWP water and Kern River water. Water from the SWP reaches the Kern County Water Agency through the California Aqueduct and Cross Valley Canal.

Kern Water Bank

The Kern Water Bank occupies approximately 20,000 acres in Kern County. The primary purpose of the bank is to recharge, store, and recover water in order to improve the water supply for its participants during periods of water shortages. It also conducts other activities like farming and habitat management.

The Kern Water Bank receives water from the Friant-Kern Canal or the Kern River. When the stored water is requested, the water can be pumped from the ground and delivered through the Cross Valley Canal and the California Aqueduct.

3.3.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not approve the multiyear transfer of up to 50,000 AF per year of available CVP water supplies to Poso Creek members. Instead, each action would require separate approval and environmental review. Since the request to transfer water is usually driven by time sensitive needs, requires coordination, and could sometimes only be completed within a short window of opportunity, the delay in the approval could render some of the transfers infeasible. Poso Creek would be unable to respond quickly and effectively to groundwater banking and transfer opportunities during wet periods and would not be able to increase flexibility in delivery of their water supplies. In drier years, Poso Creek members would need to rely more heavily on local water supplies (including purchasing water on the open market or pumped groundwater) to supplement their water supply shortfalls, which could contribute to declining groundwater levels and subsidence.

Proposed Action

Under the Proposed Action, Reclamation would approve the transfer of up to 50,000 AF per year of available CVP water to Poso Creek. This would improve Poso Creek members' water supply reliability and operational efficiency, especially for recovery during water short years and for recharge during wet years, which is necessary to normalize water supplies in a very volatile water supply market. Also, the Proposed Action would allow for better water management by helping to alleviate the need to pump additional groundwater. This could have a beneficial impact to those areas where there is potential subsidence issues (including but not limited to Westlands).

As the water supplies would be from existing CVP allocations, the Proposed Action would not alter CVP operations, water storage or release patterns from CVP facilities, or the maximum volume of water delivered to the contractors. The delivery of CVP water acquired from willing sellers would not affect water supply diversions from the Delta since this would be the same water supply already allocated to the contractors located south-of-delta and no additional diversion would be needed. Therefore, the Proposed Action would not interfere with Reclamation's obligation to deliver CVP water to other CVP contractors, or other environmental purposes. Finally, CVP water would be delivered through existing infrastructure and would not require additional construction or modification of facilities for delivery. Thus, there would be no impact to CVP operations, facilities, or supplies.

Cumulative Impacts

Reclamation has reviewed existing or foreseeable projects in the same geographic area that could affect or could be affected by the Proposed Action. Reclamation and CVP contractors have been working on various water management projects, including this one, in order to better manage limited water supplies due to changing hydrologic conditions and regulatory requirements. This and similar projects would have a cumulative beneficial effect on water supply during dry years.

As in the past, hydrological conditions and other factors are likely to result in fluctuating water supplies which drive requests for water service actions. Water districts provide water to their customers based on available water supplies and timing, while attempting to minimize costs. Farmers irrigate and grow crops based on these conditions and factors, and a myriad of water

service actions are approved and executed each year to facilitate water needs. It is likely that over the course of the Proposed Action, districts will request to exchange water supplies among themselves. And as such, each water service transaction involving Reclamation would undergo environmental review prior to approval.

The Proposed Action would allow Westlands, San Luis, Wheeler Ridge, and Semitropic to have greater long term flexibility in their water management actions, use existing water supplies in a timely manner, and provide overall better management of their water supply. This would provide a cumulatively beneficial impact to water supplies within the districts.

Section 4 Consultation and Coordination

4.1 Public Review Period

Reclamation provided the public with an opportunity to comment on the Draft FONSI and Draft EA between June 2, 2017 and June 16, 2017. No comments were received.

4.2 List of Agencies and Persons Consulted

Reclamation is coordinating the Proposed Action with the following regarding the Proposed Action:

- Department of Water Resources
- Kern County Water Agency
- Poso Creek Water Company, LLC
- San Luis Water District
- Semitropic Water Storage District
- Westlands Water District
- Wheeler Ridge-Maricopa Water Storage District

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Section 5 References

CNDDB (California Natural Diversity Database). 2017. California Department of Fish and Game's Natural Diversity Database, Government Version.

DWR (California Department of Water Resources). 2014. Summary of Recent, Historical, and Estimated Potential for Future Land Subsidence in California. Website: http://www.water.ca.gov/groundwater/docs/Summary_of_Recent_Historical_Potential_Subsidence_in_CA_Final_with_Appendix.pdf. Accessed May 2017.

DWR (California Department of Water Resources). 2017. California State Water Project Overview. Website: http://www.water.ca.gov/swp/. Accessed: May 2017.

Farr, T.G., C.E. Jones, and Z. Lui. 2017. Progress Report: Subsidence in California, March 2015 – September 2016. Prepared for DWR. Website:

http://www.water.ca.gov/waterconditions/docs/2017/JPL%20subsidence%20report%20final%20 for%20public%20dec%202016.pdf. Accessed: May.

Reclamation (Bureau of Reclamation). 2016a. Final Environmental Assessment and Finding of No Significant Impacts for the Accelerated Water Transfer and Exchange Program for Friant Division and Cross Valley Contractors – Contract Years 2016-2020 (FONSI/EA-15-018). January 2016.

Reclamation (Bureau of Reclamation). 2016b. Final Environmental Assessment and Finding of No Significant Impacts for the South-of-Delta Accelerated Water Transfer and Exchange Program – Contract Years 2016-2020 (FONSI/EA-14-064.). February 2016.

Reclamation (Bureau of Reclamation). 2016bc. Chapter 15: Air Quality and Greenhouse Gas Emissions. Final Environmental Impact Statement and Record of Decision for the Coordinated Long-Term Operation of the Central Valley Project and State Water Project. Mid-Pacific Region, Bay-Delta Office.

USGS (U.S. Geological Survey). 2017. Current Land Subsidence in the San Joaquin Valley. Website: https://ca.water.usgs.gov/projects/central-valley/land-subsidence-san-joaquin-valley.html. Accessed May.