

RECLAMATION

Managing Water in the West

Final Environmental Assessment

Ivanhoe Irrigation District 5 Year Warren Act Agreement for up to 6,500 Acre-Feet of Kaweah River Water in the Friant-Kern Canal

EA-17-044



U.S. Department of the Interior
Bureau of Reclamation
South-Central California Area Office

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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 April 6, 2018 and May 5, 2017. One comment letter was received. The comment letters and Reclamation's response to comments are included in Appendix A. 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

Ivanhoe Irrigation District (Ivanhoe) is located in Tulare County and is a Friant Division Repayment Contractor with a Class 1 contract supply of up to 6,500 acre-feet (AF) and a Class 2 contract supply of up to 500 AF. Ivanhoe wants to supplement its available water supply with Kaweah River water when Central Valley Project (CVP) water allocations are reduced or not made available.

In 2014, Reclamation analyzed a 5-year Warren Act Agreement for conveyance of non-CVP water in federal facilities in EA/FONSI 14-037 (Reclamation 2014). Based on specific environmental commitments, Reclamation determined that the proposed Agreements would not significantly affect the quality of the human environment and a FONSI was issued on August 4, 2014. Both the EA and FONSI (Reclamation 2014) are hereby incorporated by reference. In EA 14-057 the participating contractors pursued a range of supplemental water supplies, such as transfers, pumped groundwater and other surface water sources. Seven of the districts purchased a total of 8,250 AF of non-CVP Kaweah River water from the Wutchumna Mutual Water Company, which they delivered for agricultural use by way of the Friant-Kern Canal. These Agreements expire on February 28, 2019.

In addition to the existing Agreement, Ivanhoe is requesting an additional 5-year Agreement to have up to 6,500 AF of non-CVP Kaweah River water obtained from Wutchumna Water Company, Longs Ditch Company, Foothill Ditch Company, Hamilton Ditch Company, and Hawkeye Ditch Company (collectively referred to as Company), annually conveyed in the Friant-Kern Canal. This Kaweah River water is separate from the 8,250 acre-foot block that the seven contractors purchased in 2014.

1.2 Need for the Proposed Action

Ivanhoe needs to insure they have adequate water supplies to meet the needs of their customers. The purpose of the Proposed Action is to provide a conveyance mechanism to deliver supplemental water supplies to support existing crops within the districts.

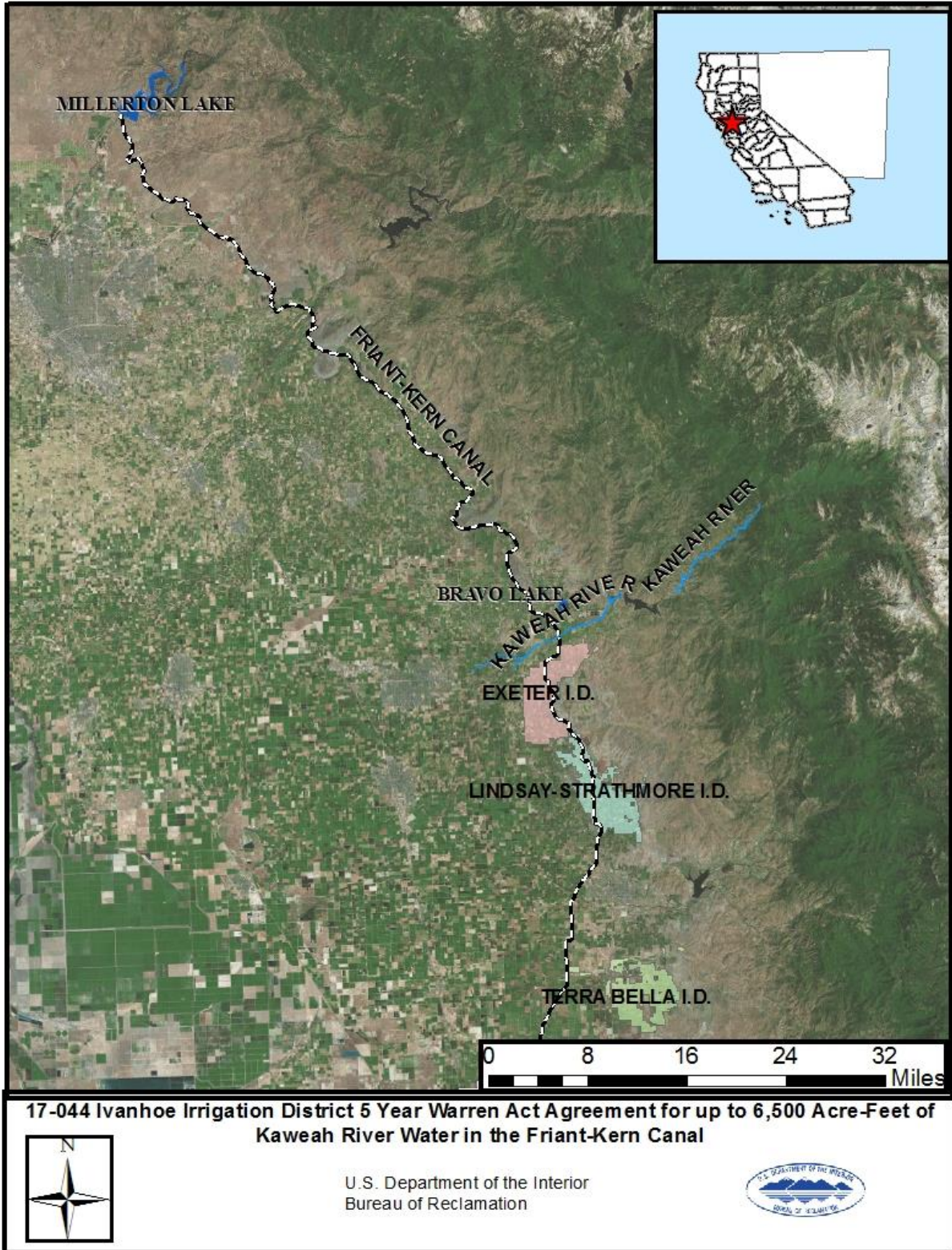


Figure 1 Proposed Action Area

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 a 5-year Agreement with Ivanhoe for the introduction and conveyance in the Friant-Kern Canal of up to 6,500 AF annually of non-CVP Kaweah River water purchased from the Company. Ivanhoe would have to take delivery of this water via non-Federal conveyance routes. The current existing Agreement would continue through February 28, 2019.

2.2 Proposed Action

Reclamation would approve a 5-year Agreement with Ivanhoe to receive up to 6,500 AF annually of non-CVP Kaweah River Water.

The Kaweah River water would be introduced into the Friant-Kern Canal using Lindsay-Strathmore Irrigation District's turnout at Milepost (MP) 69.13. There are three Friant Division Repayment contractors downstream of MP 69.13 which have Kaweah River water Agreements that could partake in this Proposed Action. They are Lindsay-Strathmore, Exeter Irrigation District, and Terra Bella Irrigation District.

Ivanhoe's delivery points (MP 65.04R, 67.05R, and 68.13R) are upstream of MP 69.13 and so Ivanhoe would enter into transfer agreements with the three Friant Division contractors downstream. This would allow Ivanhoe to transfer the Kaweah River water to them while being transferred a like amount of their Friant Division CVP water from Millerton Reservoir.

The non-CVP water would only be introduced into the Friant-Kern Canal when there is excess capacity available, as determined by Reclamation.

No ground disturbance or modification of existing facilities would be needed in order to convey water under the Proposed Action.

2.2.1 Environmental Commitments

Ivanhoe must implement the following environmental protection measures (Table 1).

Table 1 Environmental Protection Measures and Commitments

Resource	Protection Measure
Biological	Water would not be used to place untilled or new lands into production, or to convert undeveloped land to other uses.
Biological	No new construction or modification of existing facilities may occur in order to complete the Proposed Action
Biological	The Proposed Action would not alter the flow regime of 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.

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 2.

Table 2 Resources Eliminated from Further Analysis

Resource	Reason Eliminated
Air Quality	No new construction or new facilities would be needed under the Proposed Action to convey water between the Districts. 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 and are a part of the baseline condition. In addition, delivery of water to the Districts would be from existing facilities with or without the Proposed Action and is therefore part of the existing conditions. As there would be no change from existing conditions, a conformity analysis is not required and there would be no impact to air quality as a result of the Proposed Action.
Cultural Resources	The Proposed Action consists of water management actions that would convey through existing Reclamation facilities. 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.
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.
Global Climate Change	No new construction or new facilities are 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 and are a part of the baseline condition. No greenhouse gas emissions are anticipated outside normal operational fluctuations. 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. 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.

3.2 Biological Resources

3.2.1 Affected Environment

On February 27, 2018, Reclamation requested an official species list from the United States Fish and Wildlife Service (Service) via the Service's website, <http://ecos.fws.gov/ipac>, (Consultation Code: 08ESMF00-2018-SLI-1355). The list covers the Proposed Action Area. The California Department of Fish and Wildlife's California Natural Diversity Database (CNDDDB) was also queried for records of protected species within the vicinity of the Proposed Action Area (CNDDDB 2018). The information collected above was combined with information within Reclamation's files to determine the species and designated critical habitat protected under the Endangered Species Act (ESA; 16 USC 1531 et seq.), as amended, in addition to other protected species, that could occur within the Project Action Area.

A majority of special-status species named on the official species list have no potential to be present in the Proposed Action Area due to a lack of suitable habitat (Table 3)

Table 3 Federally Listed Threatened and Endangered Species

<u>Species</u>	<u>Status¹</u>	<u>Effects²</u>	<u>Occurrence in the Proposed Action Area³</u>
Amphibians			
California red-legged frog (<i>Rana draytonii</i>)	T	NE	Absent. No suitable habitat in action area. No longer occurs on valley floor, therefore no effect to the species.
California tiger salamander (<i>Ambystoma californiense</i>)	T, X	NE	Present. Project Action area overlaps occurrence records and critical habitat, but no ground disturbance, land use change or construction would occur as part of the Proposed Action. Therefore there will be no effect to the species or its critical habitat.
Birds			
Burrowing owl (<i>Athene cunicularia</i>)	MB	NT	Possible. May occur on banks of conveyance facilities and edges of agricultural fields in burrows. No ground disturbance or land use change would occur as part of the Proposed Action and therefore no take of this species, including from water conveyance.
California condor (<i>Gymnogyps californianus</i>)	E, X	NE	Present. At periphery of Lindsey-Strathmore ID. Species not expected to use agricultural fields on the valley floor or conveyance facilities. No habitat alteration and the conveyance of water would not affect designated critical habitat, therefore no effects to the species or habitat.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	E	NE	Absent. Suitable riparian habitat lacking in Action area and none would be affected by the Proposed Action, therefore no effect to this species.

<u>Species</u>	<u>Status¹</u>	<u>Effects²</u>	<u>Occurrence in the Proposed Action Area³</u>
Swainson's hawk (<i>Buteo swainsonii</i>)	MB	NT	Possible. May forage in agricultural fields. Proposed action would not alter or convert habitat which may be used by this species, therefore there would be no take of this species.
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	T	NE	Absent. Extensive cottonwood-willow riparian forest habitat required by this species does not exist within the action area and none would be affected.
Crustaceans			
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	E	NE	Absent. Species does not occur in farmlands, lands developed to Municipal and Industrial use (M&I), or in conveyance facilities. No ground disturbance or habitat alteration, therefore no effect to species.
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	T, X	NE	Present. Project Action area overlaps occurrence records and critical habitat. No ground disturbance or habitat alteration from the Proposed Action, therefore no effect to the species or its critical habitat.
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	E, X	NE	Possible. No ground disturbance or habitat alteration will occur from the Proposed Action, therefore no effect to the species or its critical habitat.
Fish			
Delta smelt (<i>Hypomesus transpacificus</i>)	T	NE	Absent. Proposed Action area is outside the species' range.
Insects			
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	T, X	NE	Possible. Project Action area overlaps elderberry shrub habitat. No Critical habitat in action area. No disturbance of vegetation or ground disturbance or habitat alteration from the Proposed action, therefore no effect to the species or its critical habitat.
Mammals			
Fresno kangaroo rat (<i>Dipodomys nitratoides exilis</i>)	E	NE	Absent. No suitable habitat in action area. Species does not use farmlands or lands developed to M&I use. Conveyance of water in the Friant-Kern Canal would not affect the species.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	E	NE	Present. Can forage in agricultural lands and travel along the conveyance right-of-way. Requires denning habitat nearby (Warrick et al. 2007) to agricultural lands. No ground disturbance or habitat alteration so no effect on potential use by kit fox. Water conveyance would

<u>Species</u>	<u>Status¹</u>	<u>Effects²</u>	<u>Occurrence in the Proposed Action Area³</u>
			not affect use of right-of-way, therefore no effect to species.
Tipton kangaroo rat (<i>Dipodomys nitratoides nitratoides</i>)	E	NE	Absent. Does not occur in Action area. Absent from active farmlands, lands developed to M&I use, and the conveyance facilities. No alteration of habitat or ground disturbance and therefore no effect to this species.
Plants			
Fleshy Owl's-clover (<i>Castilleja campestris</i> ssp. <i>succulenta</i>)	T, X	NE	Absent. Does not occur in farmlands, lands developed to M&I use, or at conveyance facilities. No ground disturbance or habitat alteration, therefore no effect to the species or critical habitat.
Hoover's spurge (<i>Chamaesyce hooveri</i>)	T, X	NE	Absent. Does not occur in farmlands, lands developed to M&I use, or at conveyance facilities. No ground disturbance or habitat alteration, therefore no effect to the species or critical habitat.
Keck's checker-mallow (<i>Sidalcea keckii</i>)	E, X	NE	Absent. Does not occur in farmlands, lands developed to M&I, or at conveyance facilities. No ground disturbance or habitat alteration, therefore no effect to the species or critical habitat.
San Joaquin Orcutt grass (<i>Orcuttia inaequalis</i>)	T, X	NE	Absent. Critical Habitat is adjacent to Friant-kern Canal right-of-way. Does not occur in farmlands, lands developed to M&I use, or at conveyance facilities. No ground disturbance or habitat alteration, therefore no effect to the species or critical habitat.
San Joaquin adobe sunburst (<i>Pseudobahia peirsonii</i>)	T	NE	Possible. Does not occur in farmlands, lands developed to M&I use. Occurs adjacent to Friant-kern Canal near Friant. No ground disturbance or habitat alteration, and water conveyance in canal would have no effect, therefore no effect on the species.
Reptiles			
Blunt-nosed leopard lizard (<i>Gambelia sila</i>)	E	NE	Absent. Does not occur in farmlands, lands developed to M&I use. No ground disturbance or habitat alteration. Water conveyance would not effect this species, therefore no effect to species.
Giant garter snake (<i>Thamnophis gigas</i>)	T	NE	Absent. Species not present in the Action Area. No land use change or effects to waterways from the Proposed Action, therefore no effect to species.

¹ Status = Status of federally protected species protected under the ESA.

E: Listed as Endangered

T: Listed as Threatened

X: Critical Habitat designated for this species

- MB: Migratory Birds
- 2 Effects = Effect determination
- MA: Proposed Action may Adversely Affect federally listed species and/or designated critical habitat
- NE: No Effect anticipated from the Proposed Action to federally listed species or designated critical habitat
- NT: No Take of migratory Birds
- 3 Definition of Occurrence Indicators
- Present: Species recorded in area and suitable habitat present.
- Possible: Species recorded in area and habitat suboptimal.
- Absent: Species not recorded in study area and suitable habitat absent.

3.2.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not approve the Agreement for Ivanhoe to convey up to 6,500 AF annually of Non-Project Kaweah River water in the Friant-Kern Canal. The districts involved would use other water supplies to keep currently farmed lands in production. Because conditions would remain the same as existing conditions, there would be no impact to biological resources.

Proposed Action

Under the Proposed Action, equal amounts of water would be exchanged among districts and water supplies would be applied in an equivalent manner, irrespective of its source and water will only transported when there is excess water and excess capacity in the Friant-Kern Canal. There would be no habitat alteration (including critical habitat), ground disturbance, modification of existing facilities, or construction required for this project.

The San Joaquin kit fox, other listed and non-listed species and any migrating birds could continue to use the Proposed Action Area as under the No Action Alternative.

Based upon the nature of this Action and full implementation of the environmental commitments (Table 1), 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.). In addition, there would be no take of birds protected under the Migratory Bird Treaty Act (16 U.S.C. §703 et seq.).

Cumulative Impacts

Because the Proposed Action would not result in any direct or indirect impacts to federally listed species or critical habitat, it would not contribute cumulatively to any impacts on these resources.

3.3 Water Resources

3.3.1 Affected Environment

The affected environment is the same as previously covered in EA-14-037 and is hereby incorporated by reference.

Kaweah River

The Kaweah River originates in the Sequoia National Park. From the park it flows southwesterly to Lake Kaweah to Terminus Dam into the San Joaquin Valley. Wutchumna Ditch Company withdraws this water from the Kaweah River for delivery into Bravo Lake. From Bravo Lake it is delivered in to the Wutchumna Ditch where it flows to MP 69.13 and into the Friant-Kern Canal. Ivanhoe requests its Kaweah River water through Lindsay-Strathmore which owns the turnout.

3.3.2 Environmental Consequences

No Action

Ivanhoe would not receive up to 6,500 AF of non-CVP Kaweah River water and would not enter into transfer agreements with downstream Friant Division contractors. They would have to find an alternate water supply or use another conveyance method to deliver this non-CVP water to their customers' crops. If no alternative conveyance method could be found, the districts would likely have to find a way to exchange it for other, usable water supplies, or crops would be fallowed. Ivanhoe would continue to receive up to 8,250AF/year under its existing agreement through February 2019.

Proposed Action

The Kaweah River water is already allocated for use, and would be made available through a combination of land fallowing and groundwater substitution. The Proposed Action does not represent a new diversion of the water, or a new water right, but an alternate use for existing supply.

The total quantity of water that would be conveyed in the Friant-Kern Canal under the Proposed Action would be limited up to 6,500 AF/year through February 28, 2023. The source of water proposed for introduction into the FKC is Kaweah River water which originates from the Sierra Nevada Mountains as does the "baseline" CVP water that flows in the FKC from Millerton Lake. As the sources of water are similar, i.e. snowmelt from the Sierra Nevada Mountains, no degradation of water supplies or adverse impacts are anticipated. In addition, the Kaweah River water, as with all non-CVP water, is required to be tested for the full suite of primary and secondary constituents under Title 22 (California Domestic Water Standards) prior to introduction.

Non-CVP water introduced into the Friant-Kern Canal must meet Reclamation's then-current *Water Quality Requirements* prior to approval for conveyance (see Appendix C.) If testing shows that the water does not meet then-current standards, the contractors would not be allowed to discharge into the Friant-Kern Canal until water quality concerns are addressed. This testing

program is anticipated to adequately protect the quality of water and limit degradation of other users' supplies.

Cumulative Impacts

The Friant-Kern Canal is used to convey water for a variety of users from a variety of sources. The quality of water being introduced is tested regularly in order to limit the potential for degradation of the mixed water supplies. This testing program is anticipated to adequately protect the quality of water in the Friant-Kern Canal from the cumulative effects of this and other water conveyance actions.

Although capacity in the Friant-Kern Canal is limited, Friant Water Authority and Reclamation actively operate it in order to balance competing demands. Non-CVP, water such as the water which would be conveyed under the Proposed Action, has a lower priority than CVP water. Therefore the Proposed Action is not anticipated to cause conflicts or create other cumulative impacts to Friant-Kern Canal operations.

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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 during a 30-day public review period. One comment letter was received. The comment letter and Reclamation's response to comments are included in Appendix A.

4.2 List of Agencies and Persons Consulted

Reclamation is coordinating with the following regarding the Proposed Action:

- Ivanhoe Irrigation District
- Lindsay-Strathmore Irrigation District
- Terra Bella Irrigation District
- Friant Water Authority
- Wutchumna Water Company
- Longs Ditch Company
- Foothill Ditch Company
- Hamilton Ditch Company
- Hawkeye Ditch Company.

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Section 5 References

Bureau of Reclamation (Reclamation). 2014. EA/FONSI 14-037 Kaweah River Water Warren Act agreements.

California Department of Fish and Wildlife (DFW). 2018. California Natural Diversity Database (CNDDDB), Government Version.

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.