

Draft FINDING OF NO SIGNIFICANT IMPACT

# Exchange Agreement for Water in San Luis Reservoir and Millerton Lake Between Dudley Ridge Water District and the San Joaquin River Exchange Contractors

FONSI-15-028



U.S. Department of the Interior Bureau of Reclamation

# **Mission Statements**

The mission of the Department of the Interior is to protect and manage the Nation's natural resources and cultural heritage; provide scientific and other information about those resources; and honor 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. BUREAU OF RECLAMATION South-Central California Area Office, Fresno, California

FONSI-15-028

# Exchange Agreement for Water in San Luis Reservoir and Millerton Lake Between Dudley Ridge Water District and the San Joaquin River Exchange Contractors

 Prepared by: Rain L. Emerson
 Date

 Supervisory Natural Resources Specialist
 Date

 Concurred by: Shauna McDonald
 Date

 Wildlife Biologist
 Date

 Approved by: Michael Jackson, P.E.
 Date

# Introduction

In accordance with section 102(2)(c) of the National Environmental Policy Act of 1969, as amended, the South-Central California Area Office of the Bureau of Reclamation (Reclamation), has determined that an environmental impact statement is not required for the facilitation of an exchange of up to 6,900 acrefeet (AF) between Dudley Ridge Water District (Dudley Ridge) and the San Joaquin River Exchange Contractors (Exchange Contractors). This draft Finding of No Significant Impact (FONSI) is supported by Reclamation's Environmental Assessment (EA)-15-028, *Exchange Agreement for Water in San Luis Reservoir and Millerton Lake Between Dudley Ridge Water District and the San Joaquin River Exchange Contractorss*, and is hereby incorporated by reference.

## Background

The State of California is currently experiencing unprecedented water management challenges due to severe drought in recent years. On January 17, 2014, the Governor proclaimed a Drought State of Emergency (State of California 2014). On December 22, 2014, provisions within this proclamation were extended until May 31, 2016. On April 1, 2015, following the lowest snowpack ever recorded in California and the ongoing drought, the Governor proclaimed a second Drought State of Emergency and directed the State Water Resources Control Board to implement mandatory water reductions in cities and towns across California to reduce water usage by 25 percent (State of California 2015). On April 23, 2015 the State Water Resources Control Board issued curtailment notices to junior water rights holders in the San Joaquin River watershed. The curtailment notices require junior water rights holders to stop diverting water from the watershed in order to allow it to flow to more senior water-right holders, as required by state law (State of California 2015).

The Exchange Contractors, which include Central California Irrigation District, Firebaugh Canal Water District, San Luis Canal Company and Columbia Canal Company, hold historic senior water rights to water supplies in the San Joaquin River watershed. In exchange for the Central Valley Project's (CVP's) regulation and diversion of the San Joaquin River water at Millerton Lake/Friant Dam, Reclamation agreed to provide water to the Exchange Contractors from the CVP's Sacramento-San Joaquin Delta (Delta) supply.

Due to the current hydrologic and regulatory conditions, Reclamation informed the Exchange Contractors that only up to 75 percent of the Exchange Contractor's water supply can be delivered (650,000 AF during a critical year) in 2015 pursuant to the 1967 Second Amended Exchange Contract (Contract No. Ilr1144r). However, only a portion of this can be met from the CVP's Delta supplies. As a result, there is a need to provide San Joaquin River water from Millerton Lake pursuant to contract obligations.

Dudley Ridge is a State Water Project (SWP) contractor that has common landowners in Arvin-Edison Water Storage District (Arvin-Edison), Shafter-Wasco Irrigation District (Shafter-Wasco), and Southern San Joaquin Municipal Utility District (Southern San Joaquin). In anticipation of San Joaquin River water being delivered to the Exchange Contractors, Dudley Ridge, on behalf of two landowners, has negotiated an exchange of up to 6,900 AF of its available SWP water supplies located in San Luis Reservoir for a portion of the San Joaquin River water that would be released by Reclamation from Millerton Lake into the San Joaquin River channel for delivery to the Exchange Contractors at Mendota Pool.

## **Proposed Action**

Reclamation proposes to facilitate an exchange of up to 6,900 AF of Dudley Ridge's SWP water supplies located within San Luis Reservoir for a like amount of San Joaquin River water, plus an additional 28 percent that would have been lost due to conveyance in the San Joaquin River channel. Specific details of the exchange agreements are included in Section 2.2 of EA-15-028.

#### **Environmental Commitments**

Reclamation, Arvin-Edison, Shafter-Wasco, Southern San Joaquin, Friant Division Class 1 contractors, and the Exchange Contractors shall implement the environmental protection measures listed in Table 1 of EA-15-028 in order to avoid or reduce environmental consequences associated with the Proposed Action. Environmental consequences for resource areas assume the measures specified would be fully implemented.

## Findings

Reclamation's finding that implementation of the Proposed Action will result in no significant impact to the quality of the human environment is supported by the following findings:

#### **Resources Eliminated from Detailed Analysis**

As described in Table 2 of EA-15-028, Reclamation analyzed the affected environment and determined that the Proposed Action does not have the potential to cause direct, indirect, or cumulative adverse effects to the following resources: air quality, cultural resources, environmental justice, global climate change, Indian Sacred Sites, Indian Trust Assets, land use, or socioeconomic resources.

#### Water Resources

Under the Proposed Action, up to 6,400 AF of Dudley Ridge's SWP water supplies in San Luis Reservoir would be delivered to the Exchange Contractors at the Mendota Pool via the Delta-Mendota Canal, the preferred point of delivery for the Exchange Contractors. As this water is existing supplies held in San Luis Reservoir, no additional Delta pumping would be needed to facilitate this exchange. Therefore, the Proposed Action would not affect CVP or SWP operations and would not change existing diversion points from the Delta under Reclamation's or DWR's water rights permits. The Proposed Action would not interfere with Reclamation's obligations to deliver water to other contractors, wetland habitat areas, or for other environmental purposes.

In exchange for the SWP delivered to the Exchange Contractors, a like amount of San Joaquin River water plus an additional 28 percent that would have been lost due to conveyance in the San Joaquin River channel, would be released from Millerton Lake and delivered to Arvin-Edison, Shafter-Wasco, and Southern San Joaquin from the Friant-Kern Canal for use by the common landowners. Half of the additional 28 percent, due to saved conveyance losses, would be provided to Friant Division Class 1 contractors via the Friant-Kern Canal and the remainder split between Arvin-Edison, Shafter-Wasco, and Southern San Joaquin.

As a result of the exchange, 2015 Friant-Kern Canal operations would have an increased water supply for conveyance all the way to Arvin-Edison's turnout at the end of the Friant-Kern Canal. The increased flows would benefit other Friant contractors that are pursuing other operational exchange opportunities in the canal.

The exchanges would utilize existing facilities and not require new infrastructure, modifications of existing facilities, or ground disturbing activities. The water would be used for existing agricultural purposed. No native or untilled land (fallow for three years or more) would be cultivated with water involved with these actions.

#### **Biological Resources**

As the Proposed Action would not involve any construction, changes in water diversions from natural waterways, or any land use, there would be no impacts to federally listed or candidate species or critical habitat. As a result, Reclamation has determined there would be No Effect to proposed or listed species or critical habitat under the Endangered Species Act of 1973, as amended (16 U.S.C. §1531 et seq.), and there would be no take of birds protected under the Migratory Bird Treaty Act (16 U.S.C. §703 et seq.).

#### **Cumulative Impacts**

Cumulative impacts result from incremental impacts of the Proposed Action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment.

#### Water Resources

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

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 various water service actions, such as transfers, exchanges, and Warren Act contracts (conveyance of non-CVP water in CVP facilities). Each water service transaction involving Reclamation undergoes environmental review prior to approval.

The Proposed Action and other similar projects would not hinder the normal operations of the CVP and Reclamation's obligation to deliver water to its contractors or to local fish and wildlife habitat. Since the Proposed Action would not involve construction or modification of facilities, there would be no cumulative impacts to existing facilities or other contractors.

#### **Biological Resources**

As the Proposed Action is not expected to result in any direct or indirect impacts to biological resources, there would be no cumulative impacts.



**Draft Environmental Assessment** 

# Exchange Agreement for Water in San Luis Reservoir and Millerton Lake Between Dudley Ridge Water District and the San Joaquin River Exchange Contractors

EA-15-028



U.S. Department of the Interior Bureau of Reclamation

# **Mission Statements**

The mission of the Department of the Interior is to protect and manage the Nation's natural resources and cultural heritage; provide scientific and other information about those resources; and honor its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

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

# Contents

#### Page

Section 1 Intr	oduction	1
1.1 Backgr	ound	1
-	or the Proposed Action	
	rnatives Including the Proposed Action	
	ion Alternative	
	ed Action	
	nvironmental Commitments	
Section 3 Affe	cted Environment and Environmental Consequences	9
	ces Eliminated from Further Analysis	
	Resources	
3.2.1 A	ffected Environment	
3.2.2 E	nvironmental Consequences	14
3.3 Biolog	cal Resources	16
3.3.1 A	ffected Environment	16
3.3.2 E	nvironmental Consequences	
	sultation and Coordination	
4.1 Public	Review Period	
Section 5 Pre	parers and Reviewers	
	erences	
Figure 1 Propo	sed Action Area	3
Figure 2 Excha	ange of Supplies under the Proposed Action	6
	-of-Delta CVP Facilities by Division	
-	-	
Table 1 Enviro	onmental Protection Measures and Commitments	7
Table 2 Resou	rces Eliminated from Further Analysis	9
Table 3 Friant	Division Class 1 Contractors	11
Table 4 Federa	Illy listed species and critical habitat in Proposed Action A	rea 16
Appendix A	Reclamation's Cultural Resources Determination	
Appendix B	Reclamation's Indian Trust Assets Determination	

# **Section 1 Introduction**

## 1.1 Background

The San Joaquin River Exchange Contractors (Exchange Contractors), which include Central California Irrigation District, Firebaugh Canal Water District, San Luis Canal Company and Columbia Canal Company, hold historic senior water rights to water supplies in the San Joaquin River watershed. In exchange for the Central Valley Project's (CVP's) regulation and diversion of the San Joaquin River water at Millerton Lake/Friant Dam, Reclamation agreed to provide water to the Exchange Contractors from the CVP's Sacramento-San Joaquin Delta (Delta) supply.

Due to the current hydrologic and regulatory conditions, Reclamation informed the Exchange Contractors that only up to 75 percent of the Exchange Contractor's water supply can be delivered (650,000 acre-feet [AF] during a critical year) in 2015 pursuant to the 1967 Second Amended Exchange Contract (Contract No. Ilr-1144r). However, only a portion of this can be met from the CVP's Delta supplies. As a result, there is a need to provide San Joaquin River water from Millerton Lake pursuant to contract obligations.

Dudley Ridge Water District (Dudley Ridge) is a State Water Project (SWP) contractor that has common landowners in Arvin-Edison Water Storage District (Arvin-Edison), Shafter-Wasco Irrigation District (Shafter-Wasco), and Southern San Joaquin Municipal Utility District (Southern San Joaquin). In anticipation of San Joaquin River water being delivered to the Exchange Contractors, Dudley Ridge, on behalf of two landowners, has negotiated an exchange of up to 6,900 acre-feet (AF) of its available SWP water supplies located in San Luis Reservoir for a portion of the San Joaquin River water that would be released by Reclamation from Millerton Lake into the San Joaquin River channel for delivery to the Exchange Contractors at Mendota Pool. See Figure 1 for the Proposed Action area.

## **1.2 Need for the Proposed Action**

The State of California is currently experiencing unprecedented water management challenges due to severe drought in recent years. On January 17, 2014, the Governor proclaimed a Drought State of Emergency (State of California 2014). On December 22, 2014, provisions within this proclamation were extended until May 31, 2016. On April 1, 2015, following the lowest snowpack ever recorded in California and the ongoing drought, the Governor proclaimed a second Drought State of Emergency and directed the State Water Resources Control Board to implement mandatory water reductions in cities and towns across California to reduce water usage by 25 percent (State of California 2015). On April 23, 2015 the State Water Resources Control Board issued curtailment notices to junior water rights holders in the San Joaquin River watershed. The curtailment notices require junior water rights holders to stop diverting water from the watershed in order to allow it to flow to more senior water-right holders, as required by state law (State of California 2015).

Both the State and Federal water projects are forecasting very low storage conditions in all major reservoirs. In addition, CVP contractors experienced reduced water supply allocations in recent years due to hydrologic conditions and regulatory requirements. Based on hydrologic conditions, Reclamation declared an allocation of 0 percent Class 1 and Class 2 supplies for Friant Division CVP for the 2014 and 2015 Contract Years (a Contract Year is from March 1 through the last day of February of the following year). As a result, Friant Division CVP contractors, including Arvin-Edison, Shafter-Wasco, and Southern San Joaquin, have a need to find alternative sources of water to fulfill existing demands.

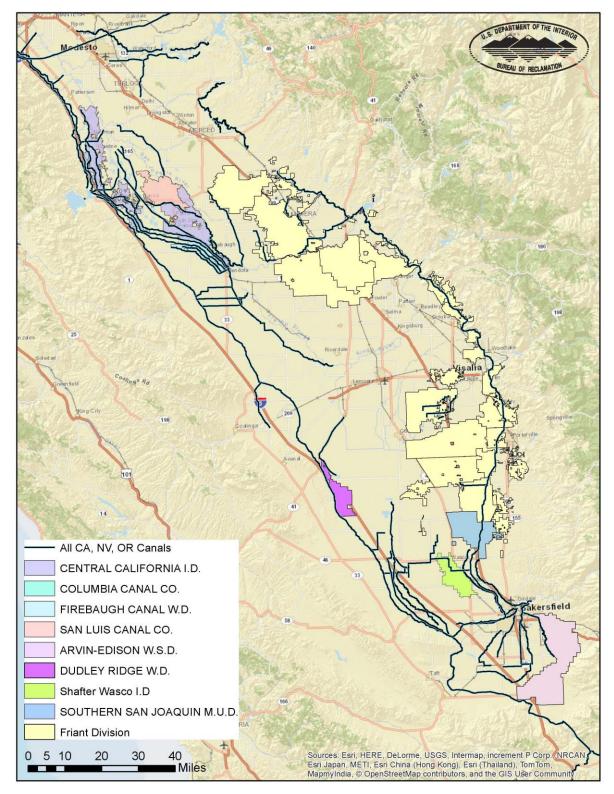


Figure 1 Proposed Action Area

#### THIS PAGE LEFT INTENTIONALLY BLANK

# 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 facilitate the exchange of water supplies between Dudley Ridge and the Exchange Contractors. SWP water supplies would either remain within San Luis Reservoir or be delivered to Dudley Ridge pursuant to their SWP contract. Reclamation would deliver San Joaquin River water from Millerton Lake to the Exchange Contractors at the Mendota Pool via the San Joaquin River channel pursuant to contract obligations. Water delivered to the Exchange Contractors through the river channel would incur approximately 28 percent of conveyance losses. No alternative water supplies would be provided to Friant Division Class contractors.

## 2.2 Proposed Action

Reclamation proposes to facilitate an exchange of up to 6,900 AF of Dudley Ridge's SWP water supplies located within San Luis Reservoir for a like amount of San Joaquin River water, plus an additional 28 percent that would have been lost due to conveyance in the San Joaquin River channel.

Under this exchange, SWP water would be released from San Luis Reservoir and delivered to the Exchange Contractors at the Mendota Pool via the Delta-Mendota Canal.

A like amount, plus the additional 28 percent, of San Joaquin River water would be released from Millerton Lake into the Friant-Kern Canal where it would be directly delivered to Arvin-Edison, Shafter-Wasco, and Southern San Joaquin from their existing turnouts in the following manner:

- 6,000 AF to Arvin-Edison
- 700 AF to Shafter-Wasco
- 200 AF to Southern San Joaquin

Fifty percent of the additional 28 percent would be provided to Friant Division Class 1 contractors and the remainder split between Arvin-Edison, Shafter-Wasco, and Southern San Joaquin. See Figure 2 for a schematic of the proposed exchange.

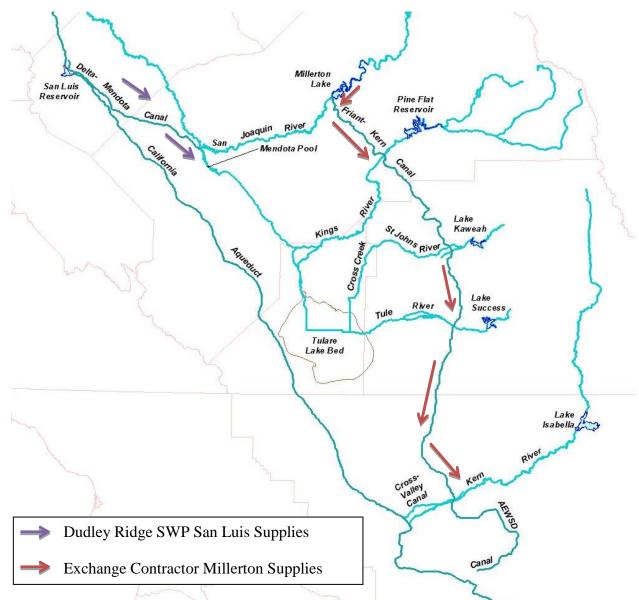


Figure 2 Exchange of Supplies under the Proposed Action

#### 2.2.1 Environmental Commitments

Reclamation, Arvin-Edison, Shafter-Wasco, Southern San Joaquin, Friant Division Class 1 contractors, and the Exchange Contractors would implement the following environmental protection measures to avoid and/or reduce environmental consequences associated with the Proposed Action (Table 1). Environmental consequences for resource areas assume the measures specified would be fully implemented.

Resource	Protection Measure
Water Resources	The Proposed Action would not affect CVP or SWP operations; all
	supplies would be previously scheduled for delivery points south-of-
	Delta, and do not require additional Delta exports.
Water Resources	The water would only be used for beneficial purposes and in
	accordance with Federal Reclamation law and guidelines.
Water Resources	Water released from Millerton Reservoir may only be served within the
	Friant Division agricultural and municipal and industrial Place of Use as
	shown in Figure 1 unless approval has been received by the State
	Water Resources Control Board for a temporary change in Place of
	Use.
Various Resources	The water would not be used to place untilled or new lands into
	production, or to convert undeveloped land to other uses.
Various Resources	No new construction or modification of existing facilities may occur in
	order to complete the Proposed Action.
Various Resources	The Proposed Action cannot alter the flow regime of natural waterways
	or natural watercourses such as rivers, streams, creeks, ponds, pools,
	wetlands, etc., so as to have a detrimental effect on fish or wildlife or
	their habitats.
Various Resources	The Proposed Action would not increase or decrease water supplies
	that would result in land development.

Table 1 Environmental Protection Measures and Commitments

#### THIS PAGE LEFT INTENTIONALLY BLANK

# 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.

Air QualityThe Proposed Action would not require construction or modification of facilities to move the exchanged water between the Districts. Exchar water would be moved via gravity which would not produce emissions impact air quality. As such, no impacts to air quality would occur and determination of general conformity under the Clean Air Act is not red facilities to existing users. As no construction or modification of facilit would be needed in order to complete the Proposed Action, Reclama has determined that these activities have no potential to cause effect historic properties pursuant to 36 CFR Part 800.3(a)(1). See Append for Reclamation's determination.Environmental JusticeThe Proposed Action would not cause dislocation, changes in employ or increase flood, drought, or disease nor would it disproportionately economically disadvantaged or minority populations.Global ClimateThe Proposed Action would not result in emissions of greenhouse ga water would move in existing facilities via gravity. Global climate change expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I acversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
water would be moved via gravity which would not produce emissions impact air quality. As such, no impacts to air quality would occur and determination of general conformity under the Clean Air Act is not recCultural ResourcesThe Proposed Action would facilitate the flow of water through existin facilities to existing users. As no construction or modification of faciliti would be needed in order to complete the Proposed Action, Reclama has determined that these activities have no potential to cause effect historic properties pursuant to 36 CFR Part 800.3(a)(1). See Append for Reclamation's determination.Environmental JusticeThe Proposed Action would not cause dislocation, changes in employ or increase flood, drought, or disease nor would it disproportionately economically disadvantaged or minority populations.Global ClimateThe Proposed Action would not result in emissions of greenhouse ga water would move in existing facilities via gravity. Global climate cha expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signit adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
determination of general conformity under the Clean Air Act is not redCultural ResourcesThe Proposed Action would facilitate the flow of water through existin facilities to existing users. As no construction or modification of facilit would be needed in order to complete the Proposed Action, Reclama has determined that these activities have no potential to cause effect historic properties pursuant to 36 CFR Part 800.3(a)(1). See Append for Reclamation's determination.Environmental JusticeThe Proposed Action would not cause dislocation, changes in employ or increase flood, drought, or disease nor would it disproportionately economically disadvantaged or minority populations.Global ClimateThe Proposed Action would not result in emissions of greenhouse ga water would move in existing facilities via gravity. Global climate cha expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic ch and how they will affect the San Joaquin Valley. CVP water allocatio made dependent on hydrologic conditions and environmental require Since Reclamation's operations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
Cultural ResourcesThe Proposed Action would facilitate the flow of water through existin facilities to existing users. As no construction or modification of facilit would be needed in order to complete the Proposed Action, Reclama has determined that these activities have no potential to cause effect historic properties pursuant to 36 CFR Part 800.3(a)(1). See Append for Reclamation's determination.Environmental JusticeThe Proposed Action would not cause dislocation, changes in employ or increase flood, drought, or disease nor would it disproportionately economically disadvantaged or minority populations.Global ClimateThe Proposed Action would not result in emissions of greenhouse ga water would move in existing facilities via gravity. Global climate cha expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic c and how they will affect the San Joaquin Valley. CVP water allocatio made dependent on hydrologic conditions and environmental require Since Reclamation operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signil adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
facilities to existing users. As no construction or modification of faciliti would be needed in order to complete the Proposed Action, Reclama has determined that these activities have no potential to cause effect historic properties pursuant to 36 CFR Part 800.3(a)(1). See Append for Reclamation's determination.Environmental JusticeThe Proposed Action would not cause dislocation, changes in employ or increase flood, drought, or disease nor would it disproportionately economically disadvantaged or minority populations.Global ClimateThe Proposed Action would not result in emissions of greenhouse ga water would move in existing facilities via gravity. Global climate cha expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
would be needed in order to complete the Proposed Action, Reclama has determined that these activities have no potential to cause effect historic properties pursuant to 36 CFR Part 800.3(a)(1). See Append for Reclamation's determination.Environmental JusticeThe Proposed Action would not cause dislocation, changes in employ or increase flood, drought, or disease nor would it disproportionately economically disadvantaged or minority populations.Global ClimateThe Proposed Action would not result in emissions of greenhouse ga water would move in existing facilities via gravity. Global climate cha expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic cr and how they will affect the San Joaquin Valley. CVP water allocation made dependent on hydrologic conditions and environmental require Since Reclamation operations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not imit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation's or such action area.	
has determined that these activities have no potential to cause effect historic properties pursuant to 36 CFR Part 800.3(a)(1). See Append for Reclamation's determination.Environmental JusticeThe Proposed Action would not cause dislocation, changes in employ or increase flood, drought, or disease nor would it disproportionately economically disadvantaged or minority populations.Global ClimateThe Proposed Action would not result in emissions of greenhouse ga water would move in existing facilities via gravity. Global climate cha expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic ch and how they will affect the San Joaquin Valley. CVP water allocation made dependent on hydrologic conditions and environmental require Since Reclamation operations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
historic properties pursuant to 36 CFR Part 800.3(a)(1). See Append for Reclamation's determination.Environmental JusticeThe Proposed Action would not cause dislocation, changes in employ or increase flood, drought, or disease nor would it disproportionately economically disadvantaged or minority populations.Global ClimateThe Proposed Action would not result in emissions of greenhouse ga water would move in existing facilities via gravity. Global climate cha expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic ch and how they will affect the San Joaquin Valley. CVP water allocatio made dependent on hydrologic conditions and environmental require Since Reclamation operations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
for Reclamation's determination.Environmental JusticeThe Proposed Action would not cause dislocation, changes in employ or increase flood, drought, or disease nor would it disproportionately economically disadvantaged or minority populations.Global ClimateThe Proposed Action would not result in emissions of greenhouse ga water would move in existing facilities via gravity. Global climate cha expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic ch and how they will affect the San Joaquin Valley. CVP water allocatio made dependent on hydrologic conditions and environmental require Since Reclamation operation greations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation's	
Justiceor increase flood, drought, or disease nor would it disproportionately economically disadvantaged or minority populations.Global ClimateThe Proposed Action would not result in emissions of greenhouse ga water would move in existing facilities via gravity. Global climate cha expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic ch and how they will affect the San Joaquin Valley. CVP water allocatio made dependent on hydrologic conditions and environmental require Since Reclamation operations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
economically disadvantaged or minority populations.Global ClimateThe Proposed Action would not result in emissions of greenhouse ga water would move in existing facilities via gravity. Global climate cha expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic ch and how they will affect the San Joaquin Valley. CVP water allocatio made dependent on hydrologic conditions and environmental require Since Reclamation operations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
Global ClimateThe Proposed Action would not result in emissions of greenhouse ga water would move in existing facilities via gravity. Global climate cha expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic ch and how they will affect the San Joaquin Valley. CVP water allocatio made dependent on hydrologic conditions and environmental require Since Reclamation operations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	npact
water would move in existing facilities via gravity. Global climate cha expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic ch and how they will affect the San Joaquin Valley. CVP water allocatio made dependent on hydrologic conditions and environmental require Since Reclamation operations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
expected to have some effect on the snow pack of the Sierra Nevada the runoff regime. Current data are not yet clear on the hydrologic ch and how they will affect the San Joaquin Valley. CVP water allocatio made dependent on hydrologic conditions and environmental require Since Reclamation operations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
the runoff regime. Current data are not yet clear on the hydrologic ch and how they will affect the San Joaquin Valley. CVP water allocatio made dependent on hydrologic conditions and environmental require Since Reclamation operations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
and how they will affect the San Joaquin Valley. CVP water allocatio made dependent on hydrologic conditions and environmental require Since Reclamation operations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
made dependent on hydrologic conditions and environmental require Since Reclamation operations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility.Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signifi adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
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 or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signific adversely affect the physical integrity of such sacred sites.           Indian Trust Assets         The Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
Reclamation's operation flexibility.           Indian Sacred Sites         The Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signification adversely affect the physical integrity of such sacred sites.           Indian Trust Assets         The Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
Indian Sacred SitesThe Proposed Action would not limit access to or ceremonial use of I sacred sites on federal lands by Indian religious practitioners or signif adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
sacred sites on federal lands by Indian religious practitioners or signil adversely affect the physical integrity of such sacred sites.Indian Trust AssetsThe Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
adversely affect the physical integrity of such sacred sites.           Indian Trust Assets         The Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	
Indian Trust Assets The Proposed Action would not impact Indian Trust Assets as there a none in the Proposed Action area. See Appendix B for Reclamation'	cantiy
none in the Proposed Action area. See Appendix B for Reclamation'	re
determination.	
Land Use The Proposed Action would not change historic land and water	
management practices. Exchanged water would move through existing	
facilities for delivery to the Districts for existing agricultural and munic	
purposes. The water would not be used to place untilled or new land	sinto
production, or to convert undeveloped land to other uses.	
Socioeconomics The Proposed Action would have beneficial impacts on socioeconom resources as the exchanged water would be used for existing purpos	

Table 2 Resources Eliminated from Further Analysis

Resource	Reason Eliminated
	would help sustain existing crops and maintain farming within the districts.

### **3.2 Water Resources**

#### 3.2.1 Affected Environment

The Proposed Action area includes the service areas of the Exchange Contractors, Dudley Ridge, Arvin-Edison, Shafter-Wasco, Southern San Joaquin, Friant Division Class 1 contractors, as well as South-of-Delta CVP facilities (West San Joaquin Division and Friant Division as shown in Figure 3), and the Mendota Pool.

#### San Joaquin River Exchange Contractors

The Exchange Contractors service area is located on the west side of the San Joaquin Valley (see Figure 1). In exchange for those water rights (resulting in the CVP's regulation and diversion of San Joaquin River water at Millerton Lake/Friant Dam, etc.), Reclamation agreed to supply water to the Exchange Contractors from the CVP's Delta supply at the Mendota Pool. Reclamation's contract obligations include provisions for a call on San Joaquin River water under certain circumstances. This call occurred last year for the first time and is anticipated to occur again this year.

#### **Dudley Ridge Water District**

Dudley Ridge is a SWP contractor that provides SWP water to agricultural uses within approximately 40,000 acres in Kern County, California. Surface water is the District's only water source; neither the District, nor its landowners, use local groundwater due to its low yield and poor quality. The District's surface water supply is comprised of their SWP allocation (up to 57,343 AF), other SWP water (including Article 21 and Turnback Pool) as available, and non-project water obtained outside the District and delivered to banking/exchange programs. In drier years, the supply is heavily supplemented by banked water retrieved from groundwater storage programs in which the District is participating; in average to wet years, the supply is mostly, or exclusively, from surface water sources.

#### Arvin-Edison Water Storage District

Arvin-Edison is a Friant Division CVP contractor with a water service contract (Contract No. 14-06-200-229AD) for up to 40,000 AFY of Class 1 and 311,675 AFY of Class 2 Friant Division CVP supplies for irrigation and municipal purposes. Arvin-Edison has historically made available a portion of its Friant Division CVP water supply to other CVP contractors located on the eastside of the San Joaquin Valley in exchange for alternate CVP supplies originating from the Delta, diverted and wheeled through the California Aqueduct for ultimate delivery to Arvin-Edison. Due to a decrease in supply reliability, cost increases, and water quality concerns, several of these exchanges are no longer feasible to the extent they once were. As a result, it has been necessary for Arvin-Edison to identify and implement additional programs to manage its highly variable CVP

water supplies. Other surface water supplies available to Arvin-Edison include water from the SWP, Kern River, and flood flows when available. Arvin-Edison manages these surface water supplies by using an underlying groundwater reservoir to regulate water availability and to stabilize water reliability by percolating water through spreading basins in addition to water management programs (i.e. transfers/exchanges) with other water agencies outside its service area. Arvin-Edison owns and operates spreading/percolation/recharge basins and groundwater extraction wells, which are used to supply previously banked groundwater to its landowners within its service area when surface water supplies are deficient.

#### Shafter-Wasco Water District

Shafter-Wasco is a Friant Division CVP contractor with a water service contract (Contract No. 14-06-200-4032D) for up to 50,000 AF per year of Class 1 and 39,600 AF per year of Class 2 Friant Division CVP supplies for irrigation and municipal purposes. The District is comprised of 38,766 acres in Kern County, of which 32,000 are irrigated. Included within the District's boundaries are the cities of Shafter and Wasco covering approximately 2,400 acres. Shafter-Wasco does not own or operate any water storage facilities or groundwater extraction facilities. Landowners must provide wells to meet irrigation demands when Shafter-Wasco does not have adequate surface water supplies available.

#### Southern San Joaquin Municipal Utility District

Southern San Joaquin is a Friant Division CVP contractor with a water service contract (Contract No. 11r-1460) for up to 97,000 AF per year of Class 1 and 45,000 AF per year of Class 2 Friant Division CVP supplies for irrigation and municipal purposes. The District is comprised of approximately 61,000 acres in Kern County, of which 47,000 are irrigated. The District does not have other long-term surface water supplies.

#### Friant Division Class 1 CVP Contractors

There are 32 Friant Division CVP contractors located on the eastern side of the San Joaquin Valley in Merced, Madera, Fresno, Tulare, Kings, and Kern Counties (see Figure 1 and Table 3). Water conveyed to these contractors from Millerton Reservoir is categorized as either Class 1 or Class 2 water depending on its reliability and allocation circumstances. Twenty-five of the Friant Division CVP contractors listed in Table 3 hold Class 1 contracts.

Contractor	Class 1 (AF/year)	Class 2 (AF/year)
Arvin-Edison Water Storage District	40,000	311,675
City of Fresno	60,000	0
<sup>2</sup> City of Lindsay	2,500	0
City of Orange Cove	1,400	0
Delano-Earlimart Irrigation District	108,800	74,500

#### Table 3 Friant Division Class 1 Contractors

Exeter Irrigation District	11,100	19,000				
Fresno Irrigation District	0	75,000				
Garfield Water District	3,500	0				
Gravelly Ford Water District	0	14,000				
<sup>2</sup> Hills Valley Irrigation District 1,250 0						
International Water District	1,200	0				
Ivanhoe Irrigation District	6,500	500				
<sup>1</sup> Kaweah Delta Water Conservation District	1,200	7,400				
<sup>2</sup> Kern-Tulare Irrigation District	0	5,000				
Lewis Creek Water District	1,200	0				
Lindmore Irrigation District	33,000	22,000				
Lindsay-Strathmore Irrigation District	27,500	0				
<sup>2</sup> Lower Tule River Irrigation District 61,200 238,000						
Orange Cove Irrigation District 39,200 0						
Porterville Irrigation District 15,000 30,000						
<sup>2</sup> Saucelito Irrigation District 21,500 32,800						
Shafter-Wasco Irrigation District   50,000   39,600						
Southern San Joaquin Municipal Utility District 97,000 45,000						
<sup>2</sup> Stone Corral Irrigation District	10,000	0				
Tea Pot Dome Water District   7,200   0						
Terra Bella Irrigation District   29,000   0						
<sup>2</sup> Tri-Valley Water District 400 0						
Tulare Irrigation District     30,000     141,000						
<sup>1</sup> Kaweah Delta Water Conservation District is comp District, Kings County Water District, Corcoran Irrig <sup>2</sup> Lower Tule River ID, Saucelito ID, Stone Corral ID of Lindsay receive CVP water under more than one Cross Valley Contractor/Sub-Contractor.	ation District, and To ), Tri-Valley, Kern-Tu	ulare Irrigation District. Ilare, Hills Valley and City				

#### South-of-Delta Facilities

A general diagram of South-of-Delta CVP facilities proposed for use under the Proposed Action is shown in Figure 3. Facilities proposed for use under the Proposed Action include: San Luis Reservoir, O'Neill Forebay and Pumping and Generating Plant, and the Delta-Mendota Canal in the West San Joaquin Division, as well as Millerton Lake and the Friant-Kern Canal within the Friant Division. Non-Federal facilities include the Cross Valley Canal and the Mendota Pool.

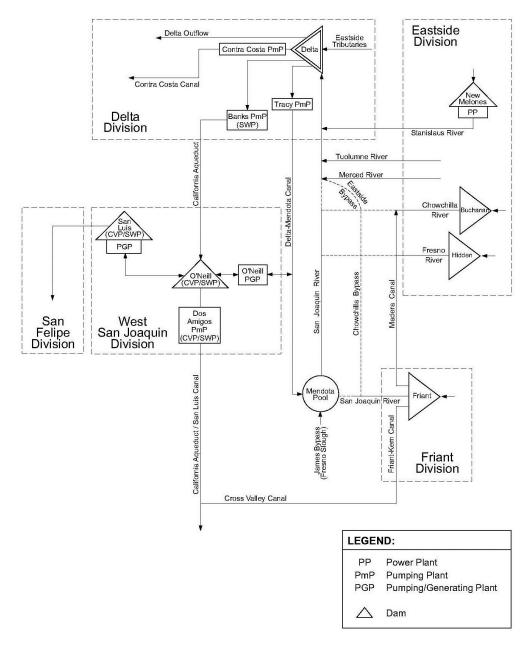


Figure 3 South-of-Delta CVP Facilities by Division (Source: Reclamation 1999, page III-19)

#### Mendota Pool

The Mendota Pool is impounded by Mendota Dam, which is owned and operated by Central California Irrigation District. The Pool primarily serves as a conveyance facility but is also used as a short-term storage and re-regulation reservoir. The Pool is supplied with surface water from the Delta-Mendota Canal (its primary source), the San Joaquin River (during restoration and flood releases from Friant Dam), and the Kings River via Fresno Slough (during flood releases from Pine Flat Dam). In addition, local wells owned by the Mendota Pool Group, Tranquillity Irrigation District, and Fresno Slough Water District also pump groundwater into the Pool, and the Mendota Wildlife Area drains its waterfowl ponds into the Pool during the spring. Water is diverted from the Pool for agricultural and wildlife uses. Most of this water is used by the members of the Exchange Contractors to irrigate lands within their service areas, but there are other CVP contractors that divert water from the Pool for irrigation purposes.

#### 3.2.2 Environmental Consequences

#### No Action

Under the No Action Alternative, Reclamation would not facilitate the exchange between Dudley Ridge and the Exchange Contractors. Dudley Ridge would receive their available SWP water supplies from San Luis Reservoir via the California Aqueduct to meet their customer's needs. The Exchange Contractors would continue to receive their allocated supplies from the Delta as well as the San Joaquin river water that they have called upon, including the portion proposed for exchange. The San Joaquin River water would be delivered to the Exchange Contractors at the Mendota Pool via the San Joaquin River channel with approximately 28 percent conveyance losses. No additional water would be conveyed down the Friant-Kern Canal to Arvin-Edison, Shafter-Wasco, Southern San Joaquin or to Friant Division Class 1 contractors. Friant-Kern Canal operations would have less water supplies for conveyance which could negatively impact the ability to support other beneficial operations within the canal. This would be an adverse impact to water resources for all the Friant Division contractors.

#### **Proposed Action**

Under the Proposed Action, up to 6,400 AF of Dudley Ridge's SWP water supplies in San Luis Reservoir would be delivered to the Exchange Contractors at the Mendota Pool via the Delta-Mendota Canal, the preferred point of delivery for the Exchange Contractors. As this water is existing supplies held in San Luis Reservoir, no additional Delta pumping would be needed to facilitate this exchange. Therefore, the Proposed Action would not affect CVP or SWP operations and would not change existing diversion points from the Delta under Reclamation's or DWR's water rights permits. The Proposed Action would not interfere with Reclamation's obligations to deliver water to other contractors, wetland habitat areas, or for other environmental purposes.

In exchange for the SWP delivered to the Exchange Contractors, a like amount of San Joaquin River water plus an additional 28 percent that would have been lost due to conveyance in the San Joaquin River channel, would be released from Millerton Lake and delivered to Arvin-Edison, Shafter-Wasco, and Southern San Joaquin from the Friant-Kern Canal for use by the common landowners. Half of the additional 28 percent, due to saved conveyance losses, would be provided to Friant Division Class 1 contractors via the Friant-Kern Canal and the remainder split between Arvin-Edison, Shafter-Wasco, and Southern San Joaquin. As a result of the exchange, 2015 Friant-Kern Canal operations would have an increased water supply for conveyance all the way to Arvin-Edison's turnout at the end of the Friant-Kern Canal. The increased flows would benefit other Friant contractors that are pursuing other operational exchange opportunities in the canal.

The exchanges would utilize existing facilities and not require new infrastructure, modifications of existing facilities, or ground disturbing activities. The water would be used for existing agricultural purposed. No native or untilled land (fallow for three years or more) would be cultivated with water involved with these actions.

#### **Cumulative Impacts**

Cumulative impacts result from incremental impacts of the Proposed Action or No Action alternative when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. To determine whether cumulatively significant impacts are anticipated from the Proposed Action or the No Action alternative, the incremental effect of both alternatives were examined together with impacts from past, present, and reasonably foreseeable future actions in the same geographic area.

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

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 various water service actions, such as transfers, exchanges, and Warren Act contracts (conveyance of non-CVP water in CVP facilities). Each water service transaction involving Reclamation undergoes environmental review prior to approval.

The Proposed Action and other similar projects would not hinder the normal operations of the CVP and Reclamation's obligation to deliver water to its contractors or to local fish and wildlife habitat. Since the Proposed Action would

not involve construction or modification of facilities, there would be no cumulative impacts to existing facilities or other contractors.

## 3.3 Biological Resources

#### 3.3.1 Affected Environment

Much of the San Joaquin Valley floor has been converted to agricultural habitat. By 1979, nearly all the Valley floor and many of the flatter upland areas were urbanized or converted to cultivated cropland (USFWS 1998). Less than 60,700 hectares (150,000 acres), which less than five percent of the Valley floor, remains uncultivated (USFWS 1998). As a result, the land in the Proposed Action area consists mostly of intensively farmed croplands and maintained farm roads which provide little or no habitat for special-status species. Limited natural habitat is present and what remain is mostly small acreages or isolated parcels.

A species list was obtained from the U.S. Fish and Wildlife Service on May 5, 2015 at <u>http://ecos.fws.gov/ipac/</u> for Merced, Kings, Fresno, Tulare, and Kern Counties. The California Natural Diversity Database (CNDDB 2015) was also checked for records of federally listed species in the Proposed Action Area. A summary of this information is included in Table 4 below.

Species	Status	Effects	Occurrence in the Proposed Action Area		
INVERTEBRATES					
Conservancy fairy shrimp <i>Branchinecta</i> <i>conservatio</i>	Е, Х	NE	<b>Absent.</b> This species and its critical habitat do not occur within the Proposed Action Area.		
Longhorn fairy shrimp Branchinecta Iongiantenna	Е, Х	NE	<b>Absent.</b> This species and its critical habitat do not occur within the Proposed Action Area.		
Vernal pool fairy shrimp <i>Branchinecta</i> <i>lynchi</i>	т, х	NE	<b>Present.</b> There are CNDDB records of this species within the Proposed Action Area. No vernal pool habitat would be altered by the Proposed Action. Critical Habitat for this species is present in a portion of the Proposed Action Area. No vernal pool habitat would be altered by the Proposed Action, so there would be <i>No Effect</i> to Critical Habitat.		
Vernal pool tadpole shrimp <i>Lepidurus packardi</i>	Ε, Χ	NE	<b>Possible.</b> There are CNDDB records of this species near the Proposed Action Area. No vernal pool habitat would be altered by the Proposed Action. There is no designated Critical Habitat for this species within the Proposed Action Area.		

Table 4 Federally listed species and critical habitat in the Proposed Action Area

Species	Status	Effects	Occurrence in the Proposed Action Area
Kern primrose sphinx moth <i>Euproserpinus euterpe</i>	т	NE	<b>Absent.</b> The Proposed Action Area is outside of this species' range.
Valley elderberry longhorn beetle Desmocerus californicus dimorphus	Т, Х	NE	<b>Possible.</b> This species may be present along the San Joaquin River and along the Friant-Kern Canal. The Proposed Action would not involve any construction, ground-disturbance, or changes in land use patterns that would affect this species' host plant, the elderberry bush. The altered flows would be relatively minor and would not affect this species' host plant. There is no critical habitat for this species in the Proposed Action Area.
FISH			
Central Valley steelhead <i>Oncorhynchus myki</i> ss	Т, Х	NE	<b>Absent.</b> This species and its critical habitat do not occur within the Proposed Action Area.
Delta smelt Hypomesus transpacificus	Т, Х	NE	<b>Absent.</b> This species and its critical habitat are restricted to the Sacramento-San Joaquin Delta, which are outside of the Proposed Action Area.
Lahontan cutthroat trout Oncorhynchus clarkii henshawi	т	NE	<b>Absent.</b> The Proposed Action Area is outside of this species' range.
Little Kern golden trout Oncorhynchus aguabonita whitei	т	NE	<b>Absent.</b> This species does not occur within the Proposed Action Area.
Mojave tui chub Gila bicolor ssp. mohavensis	Е	NE	<b>Absent.</b> This species does not occur within the Proposed Action Area.
Owens pupfish Cyprinodon radiosus	E	NE	<b>Absent.</b> This species does not occur within the Proposed Action Area.
Owens tui chub Gila bicolor ssp. snyderi	Е, Х	NE	Absent. This species and its critical habitat do not occur within the Proposed Action Area.
Paiute cutthroat trout Oncorhynchus clarkii seleniris	т	NE	<b>Absent.</b> This species does not occur within the Proposed Action Area.
AMPHIIBIANS			

Species	Status	Effects	Occurrence in the Proposed Action Area	
Arroyo toad Anaxyrus californicus	E	NE	<b>Absent.</b> The Proposed Action Area is outside of this species' range.	
California tiger salamander Sonoma County DPS <i>Ambystoma</i> <i>californiense</i>	Ε, Χ	NE	<b>Absent.</b> The Proposed Action Area is outside of this species' range.	
California tiger salamander, Central California DPS <i>Ambystoma</i> <i>californiense</i>	Т, Х	NE	<b>Possible.</b> The Proposed Action Area consists largely of agricultural lands, roadways and canals which do not provide suitable habitat for this species. Right of way lands or canal banks with burrows that could provide habitat at areas near suitable breeding ponds would not be affected by the Proposed Action. The Proposed Action would not result in the conversion of any potentially suitable habitat for this species. Critical Habitat for this species is present within a portion of the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat.	
California red-legged frog <i>Rana draytonii</i>	Τ, Χ	NE	<b>Absent.</b> There are no CNDDB records of this species within the Action Area. The Action Area consists of agricultural lands and canals which do not provide suitable habitat for this species. The Proposed Action would not result in the conversion of any habitat that is potentially suitable for this species. There is no Critical Habitat for this species within the Proposed Action Action Area.	
Mountain yellow- legged frog, northern California DPS <i>Rana muscosa</i>	E, PX	NE	<b>Absent.</b> The Proposed Action Area is outside of this species' range.	
Yosemite toad Anaxyrus canorus	T, PX	NE	<b>Absent.</b> This species' range is outside of the Proposed Action Area.	
REPTILES				
Alameda whipsnake Masticophis lateralis euryxanthus	т, х	NE	<b>Absent.</b> The Proposed Action Area is outside of this species' range	

Species	Status	Effects	Occurrence in the Proposed Action Area
Blunt-nosed leopard lizard <i>Gambelia sila</i>	E	NE	<b>Present.</b> There are several CNDDB recorded occurrences of this species within the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species.
Giant garter snake Thamnophis gigas	т	NE	<b>Present.</b> There are several CNDDB recorded occurrences of giant garter snakes within the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species. Similar amounts of water would be diverted to Mendota Pool from the Proposed Action. The quality of the water diverted that this species may be exposed to in the environment would not change sufficiently to have an effect on this species.
BIRDS			
California Clapper Rail Rallus longirostris obsoletus	E	NE	<b>Absent.</b> This species' range is outside of the Proposed Action Area.
California Condor Gymnogyps californianus	ΕX	NE	<b>Present.</b> There are CNDDB recorded occurrences of this species within the Proposed Action. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species. Critical Habitat for this species is present in a portion of the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat.
Coastal California Gnatcatcher Polioptila californica californica	т, х	NE	<b>Absent.</b> This species' range is outside of the Proposed Action Area.
Least Bell's Vireo Vireo bellii pusillus	Е, Х	NE	<b>Possible.</b> There are a few potentially occurrences of this species within the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species.
Southwestern Willow Flycatcher Empidonax traillii extimus	Е, Х	NE	<b>Absent.</b> The Proposed Action Area is outside of the species' range.

Species	Status	Effects	Occurrence in the Proposed Action Area
Western Snowy Plover Charadrius nivosus ssp. nivosus	Т, Х	NE	<b>Present.</b> There are CNDDB recorded occurrences of this species within the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species. There is no critical habitat for this species in the Proposed Action Area.
Western Yellow-Billed Cuckoo <i>Coccyzus americanus</i>	T, PX	NE	<b>Possible.</b> This species requires extensive cottonwood-willow riparian habitat, which no longer exists in the Proposed Action Area. However, individuals could fly over enroute to and from breeding habitat along the Sacramento River, but would not use the Proposed Action Area. Proposed critical habitat for this species is outside of the Proposed Action Area.
MAMMALS			
Buena Vista Lake shrew Sorex ornatus relictus	Е, Х	NE	<b>Absent.</b> CNDDB records, suitable habitat and Critical Habitat are lacking in the Proposed Action Area.
Fresno kangaroo rat Dipodomys nitratoides exilis	E, X	NE	<b>Absent.</b> This species has been extirpated from the portion of its former range that overlapped the Proposed Action Area, and Critical Habitat lies outside of the Proposed Action Area.
Giant kangaroo rat Dipodomys ingens	E	NE	<b>Present.</b> There are several CNDDB records of this species within the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	E	NE	<b>Present.</b> There are several extant CNDDB occurrences of this species throughout the Proposed Action Area. San Joaquin kit foxes can use some agricultural lands for foraging (but not denning) when they are located near more suitable land (Warrick et al. 2007). The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species.
Tipton kangaroo rat Dipodomys nitratoides nitratoides	E	NE	<b>Present.</b> There are several extant CNDDB occurrences of this species throughout the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species.
PLANTS			
Bakersfield cactus Opuntia treleasei	Е	NE	<b>Present.</b> There are CNDDB records of this species occurring within the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species.

Species	Status	Effects	Occurrence in the Proposed Action Area
California jewelflower Caulanthus californicus	E	NE	<b>Possible.</b> There are several extirpated occurrences of this species throughout the Proposed Action Area, and possibly extirpated occurrences are present within the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species.
Colusa grass Neostapfia colusana	Т, Х	NE	<b>Absent.</b> The Proposed Action Area is outside this species' range.
Fleshy owl's clover Castilleja campestris spp. succulenta	т, х	NE	<b>Present.</b> The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species. Critical Habitat for this species is present within a portion of the Proposed Action Area, but similarly would not be affected.
Greene's tuctoria <i>Tutoria greenei</i>	Е, Х	NE	<b>Absent.</b> This species and its Critical Habitat do not occur within the Proposed Action Area.
Hairy Orcutt grass Orcuttia pilosa	Е, Х	NE	<b>Present.</b> The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species. Critical Habitat for this species is present within a portion of the Proposed Action Area, but similarly would not be affected.
Hartweg's golden sunburst <i>Pseudobahia bahiifolia</i>	E	NE	<b>Absent.</b> This species does not occur within the Proposed Action Area.
Hoover's spurge Chamaesyce hooveri	Т, Х	NE	<b>Present.</b> The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species. Critical Habitat for this species is present within a portion of the Proposed Action Area, but similarly would not be affected.

Species	Status	Effects	Occurrence in the Proposed Action Area
Keck's checker-mallow <i>Sidalcea keckii</i>	Е, Х	NE	<b>Absent.</b> The Proposed Action Area is outside of this species' range.
Kern mallow Eremalche kernensis	E	NE	<b>Present.</b> There are extant CNDDB occurrences of this species within the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species.
Mariposa pussypaws Calyptridium pulchellum	т	NE	<b>Absent.</b> The Proposed Action Area is outside this species' range.
Marsh sandwort Arenaria paludicola	E	NE	<b>Absent.</b> The Proposed Action Area is outside this species' range.
Palmate-bracted bird's- beak Cordylanthus palmatus	E	NE	<b>Absent.</b> This species does not occur within the Proposed Action Area.
Ramshaw Meadows sand-verbena <i>Abronia alpina</i>	С	NE	<b>Absent.</b> The Proposed Action Area is outside this species' range.
San Benito evening- primrose <i>Camissonia</i> <i>benitensis</i>	т	NE	<b>Absent.</b> The Proposed Action Area is outside this species' range.
San Fernando Valley spineflower <i>Chorizanthe parryi</i> var. fernandina	С	NE	<b>Absent.</b> The Proposed Action Area is outside this species' range.
San Joaquin adobe sunburst <i>Pseudobahia peirsonii</i>	т	NE	<b>Present.</b> There are CNDDB records of this species within a portion of the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species.
San Joaquin Orcutt grass <i>Orcuttia inaequalis</i>	Т, Х	NE	<b>Present.</b> Critical Habitat for this species is found in a small portion of the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species or to Critical Habitat.
San Joaquin wooly- threads <i>Monolopia congdonii</i>	E	NE	<b>Present.</b> There are several CNDDB records of this species within the southern portion of the Proposed Action Area. The Proposed Action would not involve any ground-disturbance, construction, or conversion of suitable habitat which may support this species.

Species	Status	Effects	Occurrence in the Proposed Action Area		
Springville clarkia Clarkia springvillensis	т	NE	<b>Absent.</b> The Proposed Action Area is outside of the species' range.		
whitebark pine Pinus albicaulis	С	NE	Absent. The Proposed Action Area is outside of the species' range.		
<ul> <li>1 Status= Listing of Federally special status species <ul> <li>E: Listed as Endangered</li> <li>MBTA: Protected under the Migratory Bird Treaty Act</li> <li>T: Listed as Threatened</li> <li>X: Critical Habitat designated for this species</li> <li>PX: Proposed Critical Habitat</li> <li>C: Candidate for Listing</li> </ul> </li> <li>2 Effects = Effect determination <ul> <li>NE: No Effect from the Proposed Action to federally listed species</li> <li>NT: No Take would occur from the Proposed Action to migratory birds</li> </ul> </li> <li>3 Definition Of Occurrence Indicators <ul> <li>Absent: Species not recorded in study area and/or habitat requirements not met</li> <li>Possible: Species has the potential to occur in the action area</li> <li>Present: Species recorded in or near action area and habitat present</li> </ul> </li> </ul>					

#### 3.3.2 Environmental Consequences

#### No Action

Under the No Action, the districts involved in the Proposed Action would use available water supplies to keep currently farmed lands in production. There would be no land use change that could impact federally listed or candidate species or critical habitat.

#### **Proposed Action**

As the Proposed Action would not involve any construction, changes in water diversions from natural waterways, or any land use, there would be no impacts to federally listed or candidate species or critical habitat. As a result, Reclamation has determined there would be No Effect to proposed or listed species or critical habitat under the Endangered Species Act of 1973, as amended (16 U.S.C. §1531 et seq.), and there would be no take of birds protected under the Migratory Bird Treaty Act (16 U.S.C. §703 et seq.).

#### **Cumulative Impacts**

As the Proposed Action is not expected to result in any direct or indirect impacts to biological resources, there would be no cumulative impacts.

#### THIS PAGE LEFT INTENTIONALLY BLANK

# Section 4 Consultation and Coordination

## **4.1 Public Review Period**

Reclamation intends to provide the public with an opportunity to comment on the Draft Finding of No Significant Impact and Draft Environmental Assessment during a 5-day public comment period.

#### THIS PAGE LEFT INTENTIONALLY BLANK

# **Section 5 Preparers and Reviewers**

Rain L. Emerson, M.S., Supervisory Natural Resources Specialist, SCCAO Shauna McDonald, Wildlife Biologist, SCCAO BranDee Bruce, Architectural Historian, MP-153 Scott Taylor, Acting Supervisory Repayment Specialist, SCCAO – reviewer David E. Hyatt, Resources Management Division Chief, SCCAO – reviewer

#### THIS PAGE LEFT INTENTIONALLY BLANK

# **Section 6 References**

Bureau of Reclamation (Reclamation). 2011. Final Environmental Assessment and Finding of No Significant Impact. *Accelerated Water Transfer Program for Friant Division and Cross Valley Central Valley Project Contractors, 2011-2015* (FONSI/EA-10-052). Mid-Pacific Region South-Central California Area Office. Fresno, California. Website:

http://www.usbr.gov/mp/nepa/nepa\_projdetails.cfm?Project\_ID=6977.

Bureau of Reclamation (Reclamation). 2014. Final Environmental Assessment and Finding of No Significant Impact. *Arvin-Edison Water Storage District and Metropolitan Water District 10-year Water Transfer/Exchange Program* (FONSI/EA-13-026). Mid-Pacific Region South-Central California Area Office. Fresno, California. Website: <u>http://www.usbr.gov/mp/nepa/nepa\_projdetails.cfm?Project\_ID=15741</u>.

California Natural Diversity Database (CNDDB). 2015. RareFind 3 electronic database. Government version.

State of California. 2015. California Drought. Website: http://ca.gov/drought/.

State of California. 2014. Governor Brown Declares Drought State of Emergency. Website: <u>http://gov.ca.gov/news.php?id=18368</u>.

U.S. Fish and Wildlife Service (Service). 1998. Recovery plan for upland species of the San Joaquin Valley, California. Region 1, Portland, OR. 319 pp.

U.S. Fish and Wildlife Service (Service). 2015. Federal Species List. Website: <u>http://ecos.fws.gov/ipac/</u>

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.

# Appendix A Reclamation's Cultural Resources Determination

## CULTURAL RESOURCES COMPLIANCE Mid-Pacific Region Division of Environmental Affairs Cultural Resources Branch (MP-153)

#### MP-153 Tracking Number: 15-SCAO-136

**Project Name:** Exchange Agreement for Water in San Luis Reservoir and Millerton Lake Between Dudley Ridge Water District and the San Joaquin River Exchange Contractors

NEPA Document: EA-15-028

NEPA Contact: Rain Emerson, Supervisory Natural Resources Specialist

MP-153 Cultural Resources Reviewer: BranDee Bruce, Architectural Historian

Date: May 5, 2015

Reclamation proposes to facilitate an exchange of up to 6,400 acre feet of Dudley Ridge Water District's (District) available State Water Project (SWP) water supplies located within San Luis Reservoir for a like amount of San Joaquin River water, plus an additional 28 percent that would have been lost due to conveyance in the San Joaquin River channel. Under this exchange, SWP water would be released from San Luis Reservoir and delivered to the Exchange Contractors (Arvin-Edison Water Storage District, Shafter-Wasco Irrigation District, and Southern San Joaquin Municipal Utility District) at Mendota Pool via the Delta-Mendota Canal. A like amount, plus the additional 28 percent, of San Joaquin River water would be released from Millerton Lake into the Friant-Kern Canal where it would directly delivered to the Exchange Contractors via existing turnouts. Fifty percent of the additional 28 percent would be provided to Friant Division Class 1 contractors will receive their portion of the San Joaquin River water through their existing turnouts on the Friant-Kern Canal. No new construction or modification of existing facilities will occur as a result of the proposed action. Additionally, the exchanged water would not be used to place untilled or new lands into production, or to convert undeveloped land to other uses.

Reclamation has determined that the approval of water transfers using existing facilities with no changes in land use is the type of activity that does not have the potential to cause effects on historic properties pursuant to 36 CFR § 800.3(a)(1). Therefore, Reclamation has no further obligations under Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108). The proposed action would result in no impacts to cultural resources.

This document conveys the completion of the cultural resources review and NHPA Section 106 process for this undertaking. Please retain a copy with the administrative record for this action. Should the proposed action change, additional review under Section 106, possibly including consultation with the State Historic Preservation Officer, may be required.

# Appendix B Reclamation's Indian Trust Assets Determination



Emerson, Rain <remerson@usbr.gov>

## **Re: ITA Determination Request - DROUGHT Project**

**STEVENSON, RICHARD** <rstevenson@usbr.gov> To: "Emerson, Rain" <remerson@usbr.gov> Wed, May 6, 2015 at 12:03 PM

Rain,

With regard to EA-15-028 I have determined that there are no Indian Trust Assets in proximity to the lands described in the Project Description. Table Mountain Rancheria is the only ITA within the broad area described and neither the Rancheria or any other ITA will be adversely impacted by the described exchange.

Richard Stevenson Deputy Regional Resources Manager.

On Mon, May 4, 2015 at 4:41 PM, Emerson, Rain <remerson@usbr.gov> wrote: Dick,

Attached is a PD for your review. This is for a drought project that is included in the CPOU petition. I also need the ITA determinations for the other drought projects I sent last week.

Rain L. Emerson, M.S. Supervisory Natural Resources Specialist Bureau of Reclamation, South-Central California Area Office 1243 N Street, Fresno, CA 93721 Work Ph: 559-487-5196 Cell Ph: 559-353-4032

## Richard M. Stevenson

Deputy Regional Resources Manager 2800 Cottage Way, MP-400 Sacramento, CA 95825-1898 (916) 978-5264 (916) 396-3380 iPhone rstevenson@usbr.gov