

RECLAMATION

Managing Water in the West

Draft Environmental Assessment

San Joaquin Municipal Utility District – Poso Creek Integrated Regional Water Management Plan

EA-16-036



U.S. Department of the Interior
Bureau of Reclamation

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Mission Statements

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

1.1 Background

The Poso Creek Regional Water Management Group was formed in 2005 in order to improve water supply management throughout the Poso Creek Region (Figure 1). The Poso Creek Regional Water Management Group includes six agricultural districts (including three Central Valley Project [CVP] contractors), one resource conservation district, and a representative for 16 disadvantaged communities within the region. As shown in Figure 1, the Poso Creek Region lies at the crossroads of the California Aqueduct, Friant-Kern Canal, and the Kern River, which is a strategic location for facilitating surface water exchanges, transfers, and groundwater banking. In 2007, the Poso Creek Regional Water Management Group adopted an Integrated Regional Water Management Plan (Poso Creek IRWMP 2007). Members of the group with CVP contracts later requested approvals from the Bureau of Reclamation (Reclamation) for the transfer, exchange, and banking of their available CVP water supplies and use of federal facilities for return of exchanged or banked water (CVP and non-CVP) as envisioned in the Poso Creek IRWMP.

In 2009, Reclamation analyzed a 25-year approval process for the annual transfer, exchange, and/or banking of up to 195,000 acre-feet (AF) of available CVP water supplies in Environmental Assessment (EA)-09-121 (Reclamation 2012). EA-09-121 also analyzed the return of up to 65,000 AF per year of banked or exchanged water within federal facilities. Based on specific environmental commitments required for the project, including water quality requirements for returned water, Reclamation determined that the project would not significantly affect the quality of the human environment and a Findings of No Significant Impact (FONSI) was issued on May 9, 2012. Both EA and FONSI (Reclamation 2012) are hereby incorporated by reference.

Southern San Joaquin Municipal Utility District (Southern San Joaquin MUD) is a CVP contractor located within the Poso Creek Region (Figure 1). In order to address water supply needs during water management challenges, like the recent drought, Southern San Joaquin MUD joined the Poso Creek Regional Water Management Group and has requested authorization from Reclamation to participate in the streamlined approval process.

1.2 Need for the Proposed Action

Southern San Joaquin MUD needs approval from Reclamation in order to participate in the streamlined approval process associated with the Poso Creek IRWMP. Landowners within the Southern San Joaquin MUD service area need a reliable water supply to sustain current agricultural operations, especially permanent crops, during water short years.



Figure 1 Poso Creek RWMG and locations

Section 2 Alternatives Including the Proposed Action

This Environmental Assessment 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 include Southern San Joaquin MUD in the streamlined approval process associated with the Poso Creek IRWMP. Southern San Joaquin MUD would not be able to respond efficiently to groundwater banking, transfer, and exchange opportunities during wet-periods and would not be able to increase flexibility in delivery to adapt to the changing timing of deliveries outside of previously approved transfer programs. Instead, Southern San Joaquin MUD would need to request separate approval from Reclamation as each water management action opportunity becomes available; however, the approval time required could prohibit taking advantage of wet-period excess supplies. The existing streamlined approval process associated with the Poso Creek IRWMP would continue as previously analyzed in EA-09-121.

2.2 Proposed Action

Under the Proposed Action, Reclamation would annually approve Southern San Joaquin MUD's use of federal facilities to convey up to 100,000 AF per year of its available CVP water supplies for banking, transfer and/or exchange associated with the Poso Creek IRWMP through 2037. Up to 33,333 AF of previously banked and/or exchanged water would be returned to Southern San Joaquin MUD in any given year. SSJMUD's 100,000 AF per year is in addition to the 195,000 AF per year previously approved in EA 09-121. The total amount of water that would be transferred, exchanged and/or banked would now be 295,000 AF per year. Conveyance of Southern San Joaquin MUD's available CVP water supplies and return of previously banked and/or exchanged water would be done in the same manner as described in EA-09-121.

2.2.1 Environmental Commitments

Southern San Joaquin MUD shall implement the environmental protection measures included in Table 1 in order to avoid and/or reduce environmental consequences associated with the Proposed Action. Environmental consequences for resource areas assume the measures specified would be fully implemented. Copies of all reports shall be submitted to Reclamation.

Table 1 Environmental Protection Measures

Resource	Environmental Commitments
Water Resources	The water would be used for beneficial purposes and in accordance with Federal Reclamation law and guidelines as applicable.
Water Resources	No water would be used outside of the currently authorized place of use.
Various Resources	No land conversions would occur as a result of the Proposed Action.

Section 3 Affected Environment and Environmental Consequences

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

The affected environment for the Poso Creek Region is the same as described in EA-09-121. Rather than repeat the same information that has been incorporated by reference into this document, the affected environment and environmental consequences section in this EA will focus on updates or changes.

EA-09-121 analyzed a 25-year approval process for the annual transfer, exchange, and/or banking of up to 195,000 AF of available CVP water supplies (Reclamation 2012). EA-09-121 also analyzed the return of up to 65,000 AF per year of banked or exchanged water within federal facilities. The only difference is the inclusion of SSJMUD and up to 100,000 AF of their CVP water into the approval process for the Poso Creek IRWMP as described in section 2.2.

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	The Proposed Action would involve gravity and/or electrical pumps to convey surface water for banking, transfers, and exchanges, which have no direct emissions to impact air quality.
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 A for Reclamation's determination.
Environmental Justice	The Proposed Action would not cause dislocation, changes in employment, or increase flood, drought, or disease nor would it disproportionately impact economically disadvantaged or minority populations.
Global Climate Change	The Proposed Action would not result in emissions of greenhouse gases as water would move in existing facilities via gravity. 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.

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. The nearest Indian Trust Asset is the Tule River Reservation, which is approximately 16 miles northeast of the Proposed Action location.

3.2 Biological Resources

3.2.1 Affected Environment

Reclamation requested a species list from the U.S. Fish and Wildlife Service (Service) on October 6, 2016 at <https://ecos.fws.gov/ipac/> (Service 2016) for the Action Area (Southern San Joaquin MUD). The California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB) was also queried for records of protected species near the Action area (CNDDB 2016). The information collected above, in addition to information within Reclamation's files, was combined to determine the likelihood of protected species occurrence within the Action Area. In addition to the federally listed species in Table 3, other migratory birds, such as the Western Burrowing Owl could forage and nest in the Proposed Action Area.

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

Species	Status ¹	Effects ²	Occurrence in the Study Area ³
INVERTEBRATES			
Conservancy fairy shrimp <i>Branchinecta conservatio</i>	E, X	NE	Absent. This species is associated with vernal pools, and no vernal pools occur within Southern San Joaquin MUD.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T, X	NE	Absent. This species is associated with vernal pools, and no vernal pools occur within Southern San Joaquin MUD.
AMPHIBIANS			
California red-legged frog <i>Rana draytonii</i>	T, X	NE	Absent. Uses ponds and streams in the Coast Mountains, outside the Proposed Action Area; does not occur in farm lands on the valley floor.
REPTILES			
Blunt-nosed leopard lizard <i>Gambelia sila</i>	E	NE	Present. Known from different locations Southern San Joaquin MUD.
Giant garter snake <i>Thamnophis gigas</i>	T	NE	Absent. Habitat consists of streams and sloughs with emergent wetland vegetation. Current range includes the Delta and a small part of its former range in the San Joaquin Valley. This species' habitat doesn't occur in the Proposed Action Area.
MAMMALS			
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	E	NE	Present. There are several CNDDB records of this species in and within 10 miles of the Proposed Action Area. This species can forage within, but not den in agricultural lands when they are near enough to occupied native lands (Warrick et al. 2007).

Species	Status ¹	Effects ²	Occurrence in the Study Area ³
Tipton kangaroo rat <i>Dipodomys nitratoide</i> <i>nitratoide</i>	E	NE	Present. Known from the Voice of America parcel and other areas within Southern San Joaquin MUD.
PLANTS			
California jewelflower <i>Caulanthus californicus</i>	E	NE	Possible. There is one occurrence in the northern portion of SSJMUD that is listed in the CNDDDB as extirpated.
Kern mallow <i>Eremalche kernensis</i>	E	NE	Absent. Only occurs miles to the west of Southern San Joaquin MUD.

¹ **Status**= Listing of Federally special status species

E: Listed as Endangered

MBTA: Protected under the Migratory Bird Treaty Act

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

T: Listed as Threatened

X: Critical Habitat designated for this species

² **Effects** = Effect determination

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

³ **Definition Of Occurrence Indicators**

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

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

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

3.2.2 Environmental Consequences

No Action

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

Proposed Action

Under the Proposed Action, there would be no construction, no changes in pumping in the Delta, and water would only be used to support existing land uses. There is no critical habitat in the Proposed Action Area. The San Joaquin kit fox and any migrating birds could continue to use the Proposed Action Area as under the No Action alternative. 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 would not impact any federally listed species or migratory birds, it would not contribute cumulatively toward any impacts to those resources.

3.3 Water Resources

3.3.1 Affected Environment

Friant Division

The Friant Division was authorized by Congress under the concept of conjunctive use where CVP water was meant to be a supplemental supply to alleviate groundwater overdraft in the area. Based on the conjunctive use concept within the Friant Division, contractors are expected to continue mixed use of CVP and other surface water supplies and groundwater, with greater emphasis on groundwater use during dry periods when surface water is limited or expensive and percolate excess surface water in wet years. The Friant Division is an integral part of the CVP, but is hydrologically independent and therefore operated separately from the other divisions of the CVP. Major facilities of the Friant Division include Friant Dam and Millerton Lake, the Madera Canal and the Friant-Kern Canal.

As shown in Table 4, Friant Division CVP contractors have recently experienced reduced water supply allocations due to hydrologic conditions, regulatory actions, and implementation of the Stipulation of Settlement in *NRDC, et al., v. Kirk Rodgers, et al.* Class 1 water is considered as the first 800,000 AF supply of CVP water stored in Millerton Lake, which would be available for delivery from the Friant-Kern Canal and/or Madera Canals, or directly off of the Dam, as a relatively dependable water supply during each Contract Year¹. Class 2 water is considered as the next 1,400,000 AF supply of non-storable CVP water which becomes available in addition to the Class 1 supply, and because of its uncertainty as to the availability and time occurrence, would not be dependable in character and would be furnished only if and when available as determined by Reclamation per Contract Year. In addition to the allocated Class 1 and Class 2 supplies, Reclamation makes Section 215 water available during “flood releases” from Millerton Lake. Class 1 and 2 waters are not inclusive of waters released by Reclamation from Friant Dam for environmental and/or other obligations including waters made available under the San Joaquin River Settlement Act.

Table 4 Friant Division Allocations 2005 to 2016

Contract Year	Class 1 Allocation (%)	Class 2 Allocation (%)
2016	75	0
2015	0	0
2014	0	0
2013	62	0
2012	50	0
2011	100	20
2010	100	15
2009	100	15
2008	100	5
2007	65	0
2006	100	10
2005	100	10
Average	71.52	6.35
Source: Reclamation's Water Allocations (Historical) http://www.usbr.gov/mp/cvo/vungvari/water_allocations_historical.pdf		

¹ A Contract Year is from March 1 of a given year through February 28/29 of the following year.

San Joaquin River Restoration Program In 2006, the San Joaquin River Restoration Program was established to implement the Stipulation of Settlement in *NRDC, et al. v. Kirk Rodgers et al.* The Settlement's two primary goals include: (1) restoration and maintenance of fish population in the San Joaquin River below Friant Dam to the confluence of the Merced River; and (2) management of water resources in order to reduce or avoid adverse water supply impacts to Friant Division long-term contractors. The San Joaquin River Restoration Program is a long-term effort to restore flows to the San Joaquin River from Friant Dam to the confluence of Merced River in order to meet the two goals established in the Settlement (SJRRP 2017). Other water supplies available to Friant Division Contractors include Recovered Water Account² and Unreleased Restoration Flows³.

Southern San Joaquin MUD

Southern San Joaquin MUD is a Friant Division CVP contractor with a water service contract (No.11r1464D) for up to 97,000 AF per year of Class 1 water and up to 45,000 AF per year of Class 2 water. The District obtains its water supplies from 10 diversion points on the Friant-Kern Canal located between mileposts 119.6 and 130.4 and has a distribution system of 175 miles of pipeline. Southern San Joaquin MUD operates 16 regulating reservoirs that provide groundwater recharge. Poso Creek and other smaller foothill drainages also provide groundwater recharge. The District does not own and operate groundwater extraction facilities, although 13 landowners' wells are capable of delivering groundwater into their distribution system to help facilitate water management programs within the District. Landowners must use private wells to irrigate during times when Southern San Joaquin MUD does not have surface water supplies available to meet irrigation demands.

3.3.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not facilitate the exchange of water supplies between Southern San Joaquin MUD and the Poso Creek RWMG. Southern San Joaquin MUD CVP water supplies if not transferred to another CVP contractor, or used internally, could only be rescheduled providing rescheduling is allowed for the following contract year. If the proposed addition of Southern San Joaquin MUD to the streamlined approval process does not occur, Southern San Joaquin MUD would not have the banking and transfer opportunities that would augment its CVP water supplies without additional environmental review being required. This would be particularly harmful in those years when the Friant Division does not have a full water supply and they cannot meet its full irrigation needs. The additional water that Southern San Joaquin MUD would bring into the Poso Creek RWMG would not be available to benefit the other members.

Proposed Action

Under the Proposed Action, Southern San Joaquin MUD would be able to exchange and transfer CVP water supplies under the Poso Creek IRWMP. Southern San Joaquin MUD would, also, be

² Water made available to Friant Division contractors as part of the San Joaquin River Restoration Program.

³ Unreleased Restoration Flows are those Restoration Flows that cannot be released in the San Joaquin River when allocated under the San Joaquin River Restoration Program due to several factors, such as downstream demands, channel restrictions and constraints, flood control releases, facility maintenance or construction, and other conditions in the San Joaquin River (SJRRP 2016).

able to bank CVP water for future use. The Proposed Action would have a beneficial effect on the Southern San Joaquin MUD available water supplies and would provide greater flexibility in their water management actions.

The Proposed Action would allow Southern San Joaquin MUD to have greater long term flexibility in their water management actions long-term, use existing water supplies in a timely manner, and provide overall all better management of their water supply. This would provide a beneficial impact to water supplies within the District.

The Proposed Action 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 adverse impacts to existing facilities or other contractors.

Cumulative Impacts

Reclamation has reviewed existing or foreseeable projects in the same geographic area that could affect or could be affected by the Proposed Action 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 dry years.

As in the past, hydrological conditions and other factors are likely to result in fluctuating water supplies which drive requests for water service actions. Water districts provide water to their customers based on available water supplies and timing, while attempting to minimize costs. Farmers irrigate and grow crops based on these conditions and factors, and a myriad of water service actions are approved and executed each year to facilitate water needs. It is likely that over the course of the Proposed Action, districts would request various water service actions, such as banking, transfers, and exchanges whether or not the Proposed Action is authorized. Each water service transaction involving Reclamation undergoes environmental review prior to approval.

The Proposed Action would allow Southern San Joaquin MUD to have greater long term flexibility in their water management actions long-term, use existing water supplies in a timely manner, and provide overall all better management of their water supply. This would provide a cumulatively beneficial impact to water supplies within the District.

The Proposed Action 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 adverse impacts to existing facilities or other contractors.

Section 4 Consultation and Coordination

4.1 Public Review Period

Reclamation provided the public with an opportunity to comment on Draft FONSI/EA-09-121 during a 30-day public review period. No public comments were received. Reclamation also intends to provide the public with an opportunity to comment on this Draft EA during a public review period.

4.2 List of Agencies and Persons Consulted

Reclamation has consulted with the following regarding the Proposed Action:

- Southern San Joaquin Municipal Utility District
- Poso Creek Regional Management Group
- Kern County Water Agency
- California Department of Water Resources

Reclamation is coordinating the return of exchanged or banked water with Kern County Water Agency and the California Department of Water Resources as part of the streamlined approval process for the Poso Creek IRWMP previously analyzed in EA-09-121.

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Section 5 References

California Natural Diversity Database (CNDDB). 2016. October 2016.

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