

# RECLAMATION

*Managing Water in the West*

FINDING OF NO SIGNIFICANT IMPACT

## **Flyin' J Ranch 5-year Warren Act Contract for Conveyance and Storage of Groundwater within Friant Division Facilities**

FONSI-14-019



## **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.

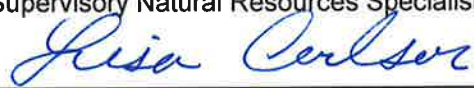
**BUREAU OF RECLAMATION**  
**South-Central California Area Office, Fresno, California**

**FONSI-14-019**

**Flyin' J Ranch 5-year Warren Act  
Contract for Conveyance and Storage of  
Groundwater within Friant Division  
Facilities**

  
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## Introduction

In accordance with section 102(2)(c) of the National Environmental Policy Act (NEPA) 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 issuance of a five-year Warren Act contract to Flyin' J Ranch for conveyance and storage of pumped groundwater in Friant Division Facilities. This Findings of No Significant Impact (FONSI) is supported by Reclamation's Environmental Assessment (EA)-14-019, *Flyin' J Ranch 5-year Warren Act Contract for Conveyance and Storage of Groundwater within Friant Division Facilities*, and is hereby incorporated by reference.

Reclamation provided the public with an opportunity to comment on the Draft FONSI and Draft EA between October 22, 2014 and November 5, 2014. One comment letter was received from Arvin-Edison Water Storage District. The comment letter and Reclamation's response to comments is included in Appendix A of EA-14-019.

## Proposed Action

Reclamation proposes to issue a five-year (through February 29, 2020) Warren Act contract for the conveyance and storage of non-Central Valley Project (non-CVP) water within Friant Division facilities to Friant Division and Cross Valley contractors located within Fresno County (see Figure 2 in EA-14-019).

Conveyance and storage of non-CVP water in federal facilities is subject to available capacity, conveyance losses, and Reclamation's then current water quality requirements. Source of the non-CVP water would be groundwater pumped from existing wells beneath Flyin' J Ranch as described in Section 2.2.1 of EA-14-019. Approximately 50 acre-feet (AF) per month would be pumped from two existing groundwater wells over the five year period. Flyin' J Ranch has proposed adding additional wells to the Proposed Action over the 5-year period; however, potential wells either need to be developed or need electrical power in order to pump and it is unknown when or if these wells would be ready to operate. Any new wells or ground disturbance required to bring electrical power to wells that would participate under the proposed Warren Act contract would require additional environmental review and approval by Reclamation prior to use for the Proposed Action. Total amount of water pumped from Flyin' J Ranch under the proposed five-year Warren Act contract with the addition of any new wells beyond those considered in the Proposed Action would not exceed 1,800 AF per year.

## **Environmental Commitments**

Reclamation, Flyin' J Ranch, Friant Division and Cross Valley contractors shall implement the environmental protection measures listed in Table 3 of EA-14-019 to 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 Section 3.1 of EA-14-019, 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: land use, cultural resources, Indian Sacred Sites, Indian Trust Assets, socioeconomic resources, environmental justice, air quality, or global climate.

### **Water Resources**

Under the Proposed Action, approximately 50 AF per month would be pumped from the two wells considered under the Proposed Action (up to 3,000 AF over the entire 5-year period for these two wells). As described in Section 2.2.1 of EA-14-019, Flyin' J Ranch may add additional wells over the 5-year period if they meet Reclamation's water quality criteria and they are reviewed and approved by Reclamation beforehand. With the addition of any new wells, the total amount of groundwater introduced annually into Millerton Lake would not exceed 1,800 AF (up to 9,000 AF over the entire 5-year period)

Introduction, conveyance, and storage of non-CVP water is dependent on available capacity and operational constraints; therefore, the Proposed Action would not interfere with the normal operations of federal facilities nor would it impede any CVP obligations to deliver water to other contractors or to local fish and wildlife habitat.

All waters introduced, conveyed, and stored within federal facilities must meet Reclamation water quality standards. If, through monitoring, the groundwater pumped by Flyin' J Ranch fails to meet the criteria for discharging non-CVP water into federal facilities, the water would not be introduced until subsequent testing has demonstrated that the water quality has met the criteria as outlined in Reclamation's then current water quality standards. Therefore, there would be no adverse impacts to water quality as a result of the Proposed Action.

Groundwater would be delivered to Friant Division and Cross Valley contractors located within Fresno County for existing irrigation and agricultural purposes. No

native or untilled land (fallow for three years or more) would be cultivated with water involved with these actions.

As impacts to adjacent wells could occur due to the groundwater pumping proposed in this action, water level monitoring will be conducted as described in Section 2.2 of EA-14-019 in order to minimize groundwater level impacts. Groundwater pumping shall cease should any adverse impacts occur.

### **Biological Resources**

With the implementation of the environmental commitments listed in Table 3 of EA-14-019, Reclamation has determined there would be *No Effect* to proposed or listed species or critical habitat under the Endangered Species Act 1973, as amended (16 U.S.C. §1531 et seq.) and *No Take* of birds protected under the Migratory Bird Treaty Act (16 U.S.C. §703 et seq.). See Section 3.3.2 of EA-14-019 for Reclamation's analysis.

### **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.

### **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 as 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 in 2014, more districts will request exchanges, transfers, and Warren Act contracts (conveyance of non-CVP water in CVP facilities) due to hydrologic conditions. 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. In addition, since the Proposed Action would not involve construction or modification of facilities, there would be no cumulative impacts to existing facilities or other contractors.

Capacity in Friant Division facilities is limited, and if many water actions were scheduled to take place concurrently they could cumulatively compete for space. However, non-CVP water would only be allowed to enter these facilities if excess capacity is available. In addition, any water stored within Millerton Lake would be limited to available capacity and would be subject to spill should capacity change over the course of the Warren Act contract. As such, the Proposed Action would not limit the ability of other users to make use of the facilities.

As pumped groundwater is required to not change receiving water quality and meet Reclamation's water quality standards prior to introduction, no cumulative adverse water quality impacts are expected.

Groundwater levels would be monitored as described in Section 2.2 of EA-14-019 in order to minimize potential adverse cumulative impacts to groundwater levels.

***Biological Resources***

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



# RECLAMATION

*Managing Water in the West*

Final Environmental Assessment

## **Flyin' J Ranch 5-year Warren Act Contract for Conveyance and Storage of Groundwater within Friant Division Facilities**

EA-14-019



U.S. Department of the Interior  
Bureau of Reclamation

March 2015

## **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.

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# Section 1 Introduction

The Bureau of Reclamation (Reclamation) provided the public with an opportunity to comment on the Draft Finding of No Significant Impact (FONSI) and Draft Environmental Assessment (EA) between October 22, 2014 and November 5, 2014. One comment letter was received from Arvin-Edison Water Storage District. The comment letter and Reclamation's response to comments is included in Appendix A. Changes between this Final EA and the Draft EA, which are not minor editorial changes, are indicated by vertical lines in the left margin of this document.

## 1.1 Background

The landowner of Flyin' J Ranch (see Figure 1) has requested a Warren Act contract from Reclamation for conveyance and storage of groundwater within and through Central Valley Project (CVP) Friant Division facilities for delivery to Friant Division and Cross Valley contractors located within Fresno County (see Figure 2).

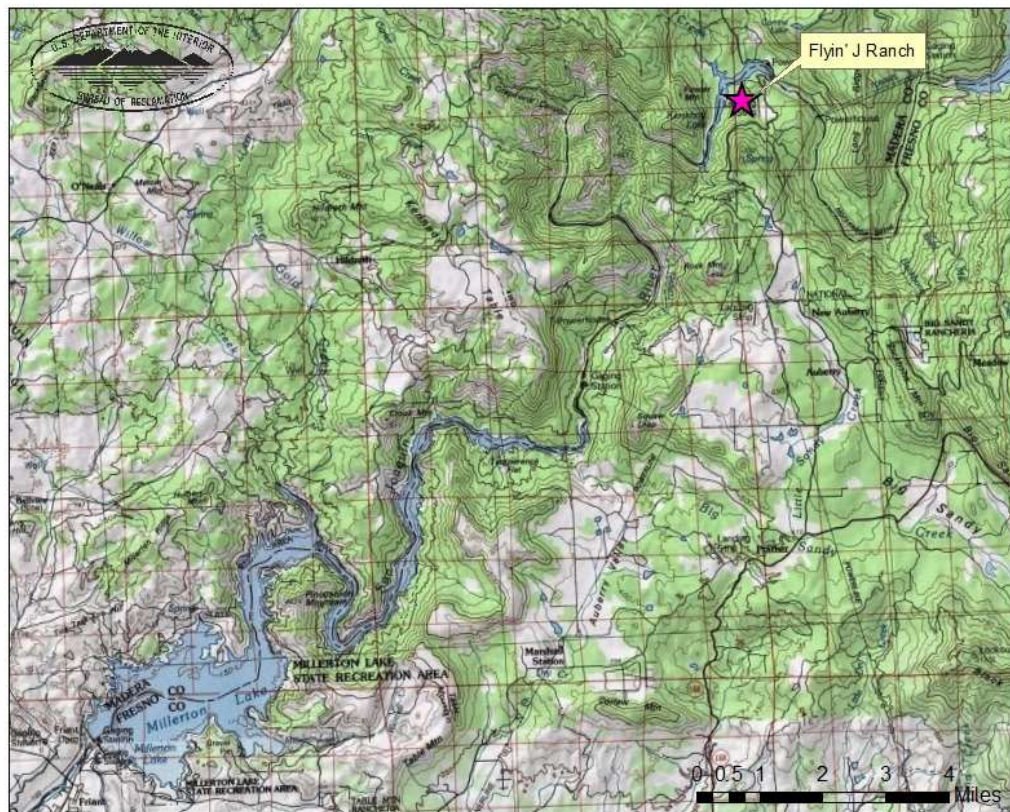


Figure 1 Flyin' J Ranch

## **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. 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 contractors and a 0 percent allocation for South-of-Delta CVP contractors, including Cross Valley contractors, for the 2014 and 2015 Contract Year (a Contract Year is from March 1 through the last day of February of the following year). As a result, CVP contractors, such as the Friant Division and Cross Valley contractors, have a need to find alternative sources of water to fulfill demands.



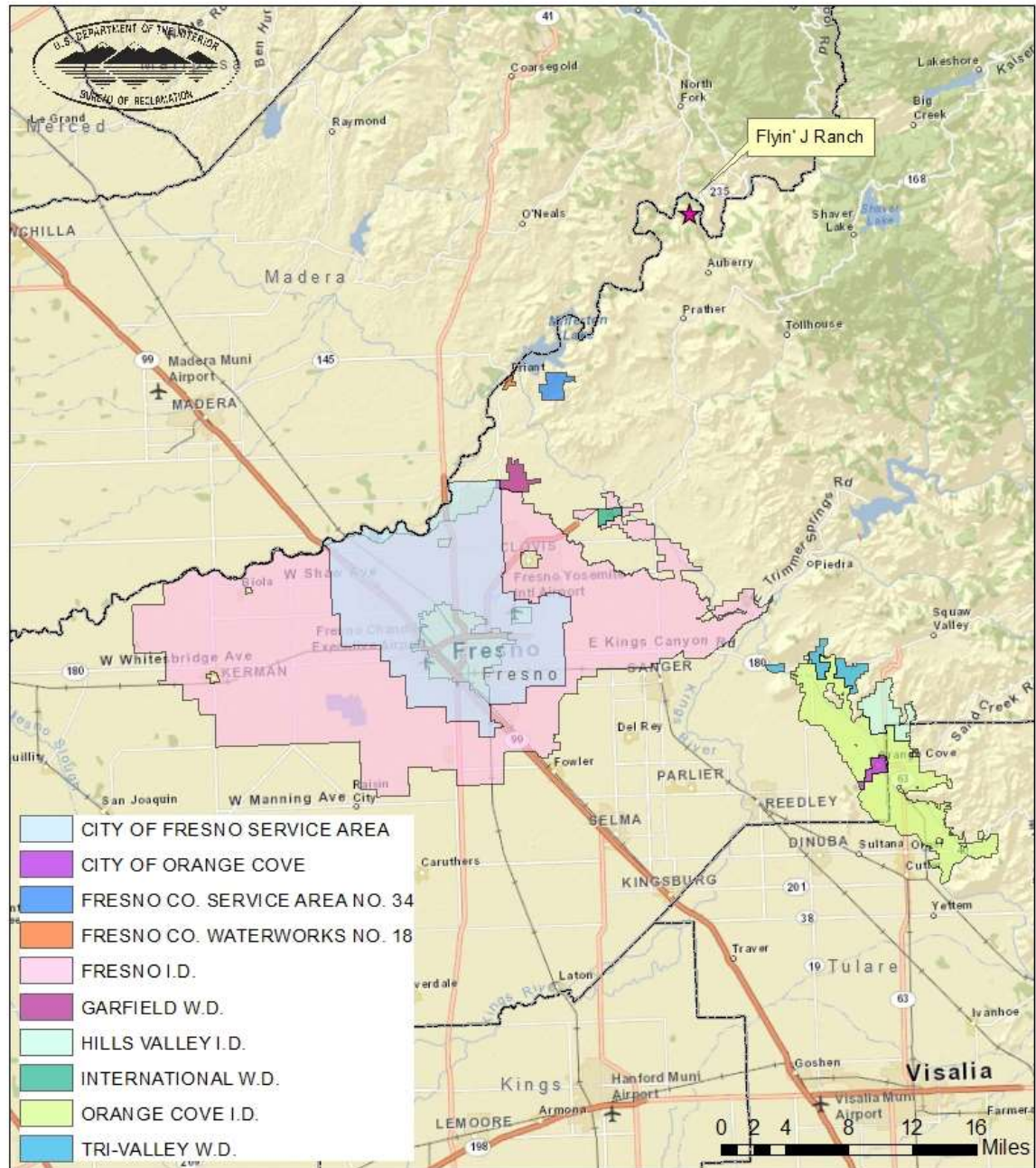


Figure 2 Friant Division and Cross Valley Contractor Potential Recipients

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## 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

Reclamation would not approve a five-year Warren Act contract for the conveyance and storage of groundwater in Friant Division facilities. Friant Division and Cross Valley contractors would need to find other sources of water to make up for reduced CVP allocations.

### 2.2 Proposed Action

Reclamation proposes to issue a five-year (through February 29, 2020) Warren Act contract for the conveyance and storage of non-CVP water within Friant Division facilities to Friant Division and Cross Valley contractors located within Fresno County (see Figure 2). Conveyance and storage of non-CVP water in federal facilities is subject to available capacity, conveyance losses, and Reclamation's then current water quality requirements (Reclamation 2008). In addition, any storage of the non-CVP water would comply with the 2005 Friant Operational Guidelines and the then current Rescheduled Guidelines. Source of the non-CVP water would be groundwater pumped from existing wells beneath Flyin' J Ranch as described below.

#### 2.2.1 Flyin' J Ranch

Two existing wells within Flyin' J Ranch would pump approximately 50 acre-feet (AF) per month over the five year period (see Figure 3). The two wells would require placement of diesel generators with 92 gallon tanks. Each tank would be placed within a 120 gallon spill containment unit. Placement of the generators and spill containment units would not involve any ground-disturbing activities or construction and the generators would be insulated to reduce sound. Specific parameters for each of the wells are included in Table 1 below.

Table 1 Pump Parameters by Well

Well #	Gallons per Minute	Depth (feet)	Pump Size	Power Source
8	294	428	40 horsepower	Diesel generator
10	108	397	25 horsepower	Diesel generator

As shown in Figure 3, pumped groundwater would be introduced into Kerckhoff Reservoir from a temporary aboveground pipeline connected to each of the two wells. The pipeline would be placed by hand over a few days and set so that existing rocks at the point of introduction would naturally diffuse the introduced groundwater to minimize erosion. No ground disturbance would be required for introduction of the pumped groundwater. From Kerckhoff Reservoir, introduced groundwater would be conveyed down the San Joaquin River into Millerton Lake where it would be either directly delivered or stored for later delivery, less 5 percent conveyance losses, to Friant Division and Cross Valley contractors located within Fresno County either directly from Millerton Lake or from the Friant-Kern Canal.

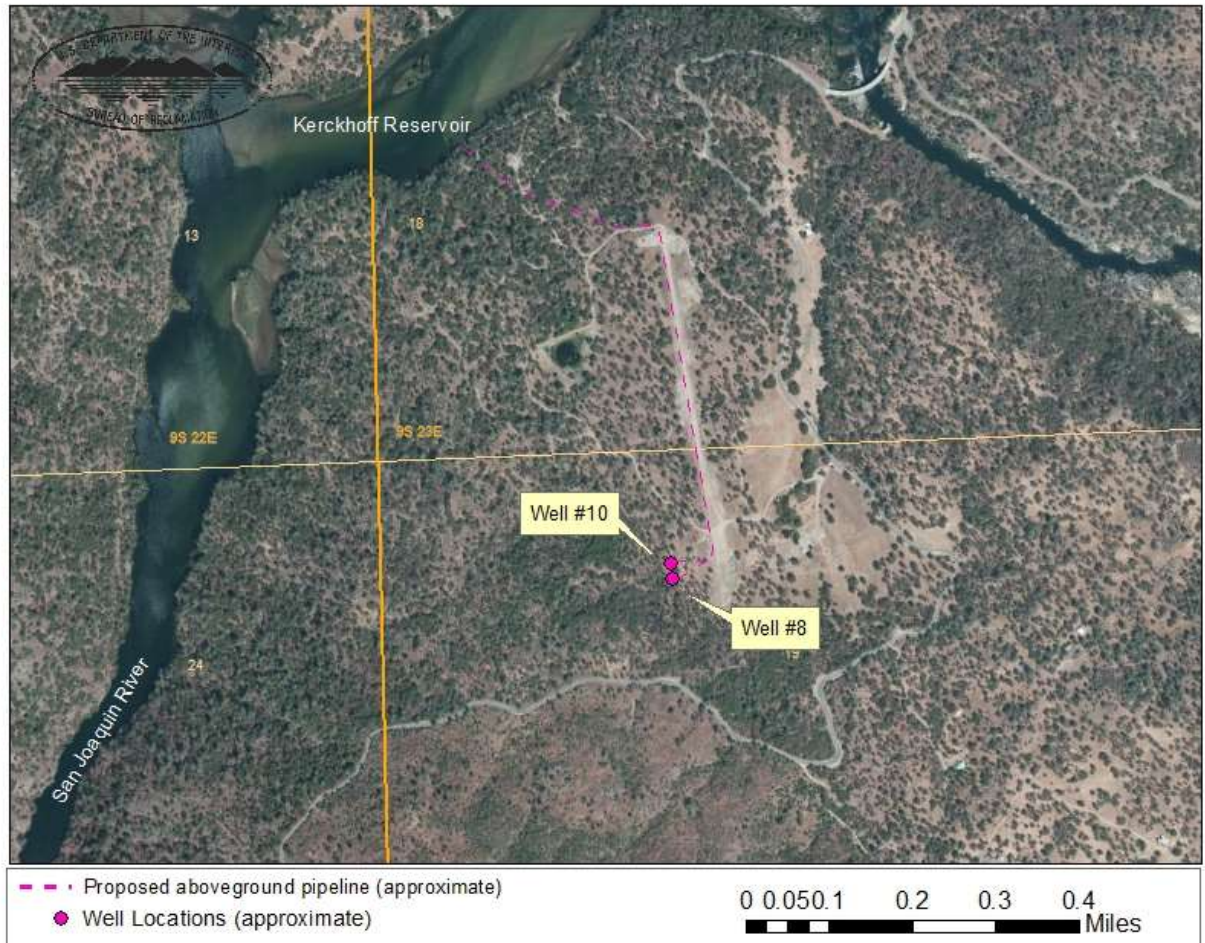


Figure 3 Flyin' J Project Details

Flyin' J Ranch has proposed adding additional wells to the Proposed Action over the 5-year period; however, potential wells either need to be developed or need electrical power in order to pump and it is unknown when or if these wells would be ready to operate. Any new wells or ground disturbance required to bring electrical power to wells that would participate under the proposed Warren Act contract would require additional environmental review and approval by

Reclamation prior to use for the Proposed Action. Total amount of water pumped from Flyin' J Ranch under the proposed five-year Warren Act contract with the addition of any new wells beyond those considered in the Proposed Action would not exceed 1,800 AF per year (AFY).

### **Groundwater Monitoring**

Flyin' J Ranch would follow the well monitoring schedule shown in Table 2 prior to the start of and during each annual pumping event.

Table 2 Well Monitoring Schedule

	<b>Flyin' J Wells #8 and #10</b>	<b>Other Flyin' J Wells</b>	<b>Neighbor Wells</b>
Two weeks prior to start of pumping	No monitoring	No monitoring	Twice per day (morning & evening)
Month 1	Twice per day (morning & evening)	Once per day	Twice per day (morning & evening)
Month 2	Twice per day (morning & evening)	To be determined depending on effect. Minimum would be biweekly.	To be determined depending on effect. Minimum would be biweekly.
Month 3	Twice per day (morning & evening)	To be determined depending on effect.	To be determined depending on effect. Minimum would be weekly.
Month 4	Twice per day (morning & evening)	To be determined depending on effect.	To be determined depending on effect. Minimum would be bimonthly.
After month 4	Twice per day (morning & evening)	To be determined depending on effect.	To be determined depending on effect.

### **2.2.2 Environmental Commitments**

Reclamation, Flyin' J Ranch, and Friant Division and Cross Valley contractors shall implement the following environmental protection measures to reduce environmental consequences associated with the Proposed Action (Table 3). Environmental consequences for resource areas assume the measures specified would be fully implemented. Copies of all reports and monitoring shall be submitted to Reclamation.

Table 3 Environmental Protection Measures and Commitments

<b>Resource</b>	<b>Protection Measure</b>
Air Quality	Diesel generators will be operated pursuant to permits issued by the San Joaquin Valley Air Pollution Control District.
Biological Resources	No native or untilled land (fallow for three consecutive years or more) may be cultivated or put into production with this water without additional environmental analysis and approval.
	This water shall not be used to change the land use patterns of cultivated or fallowed fields that may provide some value to listed species or birds protected by the Migratory Bird Treaty Act (MBTA).
	The Proposed Action does not allow for the alteration of the flow regime of natural waterways or watercourses such as rivers, streams, creeks, ponds, pools, wetlands, etc., so as to have a detrimental effect on fish or wildlife or their habitats.

Resource	Protection Measure
	A Reclamation-approved biologist shall survey the Flyin' J Ranch action area for nesting bald eagles, golden eagles and prairie falcons prior to the placement of the temporary pipeline. If a nest is found during the survey, a 330-foot non-disturbance buffer shall be observed around the nest during the installation of the temporary pipeline. No buffer is required outside of the breeding season.
	To avoid any effects to Valley elderberry longhorn beetles, all elderberry bushes shall be avoided during the placement of the temporary pipeline on the Flyin' J Ranch.
	To avoid any effects to California tiger salamanders, the collapse of any burrows that may be suitable for this species shall be avoided during the placement of the temporary pipeline.
Water Resources	The Proposed Action must comply with Reclamation's then current water quality requirements.
	Water levels will be monitored during pump-ins to ensure that nearby wells are not impacted. Should groundwater levels in nearby wells be adversely affected, pumping shall cease.
	The Proposed Action would not affect Friant Division operations; all groundwater pump-ins and deliveries would be scheduled in advance.
	The water would only be used for beneficial purposes and in accordance with Federal Reclamation law and guidelines.
Various Resources	No new construction or modification of existing facilities may occur in order to complete the Proposed Action.
	The Proposed Action would not increase or decrease water supplies that would result in development.
	Diesel generators shall be contained within appropriate spill containment in order to prevent potential spills being releases into the environment.

## 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 4.

Table 4 Resources Eliminated from Further Analysis

Resource	Reason Eliminated
Land Use	No land use change would occur within Flyin' J Ranch. The temporary pipeline would be placed aboveground without ground disturbance and removed once pumping is complete. The Proposed Action would not change historic land and water management practices within recipient districts. Pumped groundwater would move through existing facilities for delivery to Contractor lands for use on existing crops. The water would not be used to place untillied or new lands into production, or to convert undeveloped land to other uses.
Cultural Resources	The Proposed Action would facilitate the flow of water through existing facilities to existing users. As no construction or modification of facilities would be needed in order to complete the Proposed Action, Reclamation has determined that these activities have no potential to cause effects to historic properties pursuant to 36 CFR Part 800.3(a)(1). See Appendix B for Reclamation's determination.
Indian Sacred Sites	The Proposed Action would not limit access to or ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites.
Indian Trust Assets	The Proposed Action would not impact Indian Trust Assets as there are none in the Proposed Action area. See Appendix C for Reclamation's determination.
Socioeconomics	The Proposed Action would have beneficial impacts on socioeconomic resources with the districts receiving the water as it would be used to help sustain existing crops and maintain farming within the districts.
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.
Air Quality	Diesel engines for the two wells would meet the California Air Resources Board and Environmental Protection Agency Tier 3 specifications. As such, the engines would meet the emission requirements for compression engines as outlined in San Joaquin Valley Air Pollution Control District Rule 4702, Section 5.2.4. Projected emissions from these engines would be below the <i>de minimis</i> amounts specified in 40 CFR § 93.153. As such a determination of general conformity under the Clean Air Act is not required.

Resource	Reason Eliminated
Global Climate Change	The Proposed Action may result in the direct emissions of greenhouse gases through the use of diesel fuel when the two wells with diesel pumps are used in a given year. However, the greenhouse gases generated would be extremely small compared to sources contributing to potential climate change. The total greenhouse gas emissions from the diesel pumps would be far below the 25,000 metric tons per year threshold for reportable greenhouse gas emissions. Use of the two electric pumps would not result in the power plant exceeding operating capacity or its' emissions permit.

## 3.2 Water Resources

### 3.2.1 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 to 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 5, 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.*

Table 5 Friant Division Allocations 2005 to 2014

Contract Year	Class 1 Allocation (%)	Class 2 Allocation (%)
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
<b>Average</b>	<b>77.7</b>	<b>7.5</b>
Source: Reclamation's Water Allocations (Historical) <a href="http://www.usbr.gov/mp/cvo/">http://www.usbr.gov/mp/cvo/</a> *Initial 2015 Contract Year allocation.		

**San Joaquin River Restoration Program** In 2006, the San Joaquin River Restoration Program (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 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 (San Joaquin River Restoration Program 2014). The Settlement requires that Reclamation modify releases from Friant Dam from October 1 to September 30 for a program of interim flows in order to collect pertinent scientific data and to implement a monitoring program. These flows started October 1, 2009. Full restoration flows were scheduled to start no later than January 1, 2014. However, due to the critical low water year in 2014, flows from Friant Dam were decreased beginning February 1, 2014 until all restoration flows stopped. Unless hydrologic conditions improve, the SJRRP will not release Restoration during 2015 (San Joaquin River Restoration Program 2014).

### ***Cross Valley Contractors***

Cross Valley contractors are CVP contractors that are geographically located within the Friant Division but receive their CVP supplies from the Delta. Due to direct conveyance hurdles, Cross Valley contractors obtain their CVP supplies either by direct delivery from the Cross Valley Canal or via exchanges for water from Millerton Lake pursuant to Article 5(a) of their water service contracts.

### ***Flyin' J Ranch***

The Ranch lies in the Sierra Nevada foothills, east of the San Joaquin Valley Groundwater Basin. Groundwater in this area is derived from fractured crystalline rock aquifers. There are 10 wells within the overall Flyin' J Ranch area that range from 216 to 737 feet deep. All of the wells intersect fracture systems within the granitic bedrock. The two wells proposed for pumping under the Proposed Action are 428 and 397 feet deep, respectively (see Table 1).

A study conducted by Melvin C. Simmons Associates in 2008 determined that the aquifer underlying the ranch was confined (i.e., groundwater is under pressure significantly greater than atmospheric pressure). In addition, water quality characteristics of the wells tested showed different constituents than the San Joaquin River/Kerkoff Reservoir indicating that groundwater pumped by the Ranch is from a different source than the river (see Table 6).

Table 6 Select Chemical Parameters for Wells #8, #10 and San Joaquin River/Kerkoff Reservoir

	<b>TDS (mg/L)</b>	<b>Calcium (mg/L)</b>	<b>Sodium (mg/L)</b>	<b>Chloride (mg/L)</b>	<b>Fluoride (mg/L)</b>	<b>Bicarbonate (mg/L)</b>	<b>Turbidity (NTU)</b>
Well #8	230	42	26	25	0.30	140	ND
Well #10	230	41	26	26	0.27	140	ND
River/Reservoir	14	1.9	2.1	1.4	ND	110	1.3
Note: Well #8 and #10 sampled October 3, 2008. San Joaquin River/Kerkoff Reservoir sampled on June 5, 2005. TDS = total dissolved solids mg/L = milligram per liter NTU = nephelometric turbidity unit							

As part of the study, wells #8 and #10 were pumped simultaneously over an 11 day period. Monitoring of eight other wells and two springs, both on and off site, indicated that simultaneous pumping of the two wells resulted in water levels dropping by various degrees in the eight other wells; however, the two springs were unaffected (Simmons 2008).

### **3.2.2 Environmental Consequences**

#### ***No Action***

Under the No Action Alternative, no additional groundwater would be pumped from Flyin' J Ranch to provide supplemental water to Friant Division or Cross Valley contractors located within Fresno County. Groundwater conditions beneath the ranch would be unchanged. As CVP agricultural contractors received a 0 percent allocation for the 2014 and 2015 Contract Year, surface water supplies would continue to be minimal. Groundwater pumping would likely increase in areas that have available groundwater supplies further impacting an overdrafted area. District's that do not have available groundwater resources would not be able to prevent additional permanent crop damage and loss.

#### ***Proposed Action***

Under the Proposed Action, approximately 50 AF per month would be pumped from the two wells considered under the Proposed Action (up to 3,000 AF over the entire 5-year period for these two wells). However, as described in Section 2.2.1, Flyin' J Ranch may add additional wells over the 5-year period if they meet Reclamation's water quality criteria and they are reviewed and approved by Reclamation beforehand. With the addition of any new wells, the total amount of groundwater introduced annually into Millerton Lake would not exceed 1,800 AF (up to 9,000 AF over the entire 5-year period)

Introduction, conveyance, and storage of non-CVP water is dependent on available capacity and operational constraints; therefore, the Proposed Action would not interfere with the normal operations of federal facilities nor would it impede any CVP obligations to deliver water to other contractors or to local fish and wildlife habitat.

All waters introduced, conveyed, and stored within federal facilities must meet Reclamation water quality standards. If, through monitoring, the groundwater pumped by Flyin' J Ranch fails to meet the criteria for discharging non-CVP water into federal facilities, the water would not be introduced until subsequent testing has demonstrated that the water quality has met the criteria as outlined in Reclamation's then current water quality. Therefore, there would be no adverse impacts to water quality as a result of the Proposed Action.

Groundwater would be delivered to Friant Division and Cross Valley contractors located within Fresno County for existing irrigation and agricultural purposes. No native or untilled land (fallow for three years or more) would be cultivated with water involved with these actions.



As impacts to adjacent wells could occur due to the groundwater pumping proposed in this action, water level monitoring will be conducted as described in Section 2.2 in order to minimize groundwater level impacts. Groundwater pumping shall cease pumping should any adverse impacts occur.

### ***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 as 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 in 2014, more districts will request exchanges, transfers, and Warren Act contracts (conveyance of non-CVP water in CVP facilities) due to hydrologic conditions. 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.

Capacity in Friant Division facilities is limited, and if many water actions were scheduled to take place concurrently they could cumulatively compete for space. However, non-CVP water would only be allowed to enter these facilities if excess capacity is available. In addition, any water stored within Millerton Lake would

be limited to available capacity and would be subject to spill should capacity change over the course of the Warren Act contract. As such, the Proposed Action would not limit the ability of other users to make use of the facilities.

As pumped groundwater is required to not change receiving water quality and meet Reclamation's water quality standards prior to introduction, no cumulative adverse water quality impacts are expected.

Groundwater levels would be monitored as described in Section 2.2 in order to minimize potential adverse cumulative impacts to groundwater levels.

### 3.3 Biological Resources

#### 3.3.1 Affected Environment

The Action area includes two wells on the Flyin' J Ranch, the footprint of two diesel generators and a temporary above-ground pipeline connecting the wells to Kerckhoff Lake, Kerckhoff Lake and the San Joaquin River from Kerckhoff Dam downstream to Millerton Lake, Millerton Lake, the Friant-Kern Canal, and Friant Division and Cross-Valley contractor service areas located within Fresno County.

##### ***Special-Status Species***

Reclamation requested an official species list from the U.S. Fish and Wildlife Service (Service) on June 24, 2014 via the Sacramento field office's website, [http://www.fws.gov/sacramento/es/spp\\_list.htm](http://www.fws.gov/sacramento/es/spp_list.htm) (Document number: 140624031759). The list is for the following 7 ½ minute U.S. Geological Survey quadrangles which are overlapped by the Action area: Orange Cove North, Wahtoke, Orange Cove South, Sanger, Malaga, Conejo, Fresno South, Kearney Park, Raisin, Caruthers, Kerman, Piedra, Academy, Friant, Clovis, Round Mountain, Herndon, Fresno North, Gravelly Ford, Biola, North Fork, Millerton Lake West, and Millerton Lake East. 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 2014). 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.

Table 7 Special Status Species with the Potential to Occur in the Action Area

Species	Status	Effects	Occurrence in the Study Area
INVERTEBRATES			
Conservancy fairy shrimp <i>Branchinecta conservatio</i>	E	NE	<b>Possible.</b> There are no CNDDB records or critical habitat for this species within the Action area. There are some vernal pools along the Friant-Kern Canal that could provide suitable habitat for this species. The Proposed Action would not involve the conversion of any native or fallowed lands and would not alter the hydrology of any vernal pools.

Species	Status	Effects	Occurrence in the Study Area
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T,X	NE	<b>Present.</b> There are CNDDDB records of this species in the action area and critical habitat for this species is present along the Friant-Kern Canal. The Proposed Action would not involve the conversion of native or fallowed lands and would not alter the hydrology of any vernal pools. There would be no effect to this species or its critical habitat.
Valley elderberry longhorn beetle <i>Desmoceris californicus dimorphus</i>	T	NE	<b>Possible.</b> There are CNDDDB records of this species near Flyin' J Ranch, Tri-Valley Water District, and the City of Fresno Service Area. The Proposed Action would not involve any removal/disturbance of vegetation, construction, or conversion of native or fallowed lands. There would be no effect to this species or its host plant.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	E,X	NE	<b>Possible.</b> There are no CNDDDB records or critical habitat for this species within the action area. There are some vernal pools along the Friant-Kern Canal that could provide suitable habitat for this species. The Proposed Action would not involve the conversion of any native or fallowed lands and would not alter the hydrology of any vernal pools.
FISH			
Delta smelt <i>Hypomesus transpacificus</i>	T	NE	<b>Absent.</b> Delta smelt do not occur upstream of Friant Dam (SJRRP 2011). Water associated with the Proposed Action would not enter any waterways where delta smelt are present.
Central Valley steelhead <i>Oncorhynchus mykiss</i>	T, NMFS	NE	<b>Absent.</b> Central Valley Steelhead do not occur upstream of Friant Dam (Portz et al 2013). Water associated with the Proposed Action would not enter any waterways where this species is present.
AMPHIBIANS			
California tiger salamander, Central population <i>Ambystoma californiense</i>	T, X	NE	<b>Present.</b> There are several CNDDDB occurrences of this species within the action area. Critical habitat for this species is present in the action area in Fresno County Service Area Number 34, Tri-Valley Water District, Hills Valley Irrigation District, and along the southern portion of Millerton Lake. The Proposed Action would not alter the hydrology of vernal pools, and would not involve any ground-disturbing activities, construction, or conversion of native or fallowed lands. There would be no effect to this species or its critical habitat.
California red-legged frog <i>Rana draytonii</i>	T	NE	<b>Absent.</b> This species is extirpated from the floor of the Central Valley, and does not occur within the Action area (Service 2002).
REPTILES			
Blunt-nosed leopard lizard <i>Gambelia sila</i>	E	NE	<b>Possible.</b> There are no CNDDDB occurrences of this species in the action area. Some suitable habitat may exist within the Action area; however, the Proposed Action would not involve any construction, ground-disturbing activities, or conversion of native or fallowed lands. There would be no effect to this species.

Species	Status	Effects	Occurrence in the Study Area
Giant garter snake <i>Thamnophis gigas</i>	T	NE	<b>Absent.</b> There are no CNDDDB records of this species within the Action area. This species has been extirpated south of the Mendota Wildlife Area in Fresno County and remains in very low numbers in the San Joaquin Valley between the San Joaquin River and the City of Los Banos (Service 2012). The Action area does not contain suitable habitat for this species.
BIRDS			
Tri-colored blackbird <i>Agelaius tricolor</i>	MBTA	NT	<b>Present.</b> There are CNDDDB records of this species throughout the action area. The Proposed Action would not change the land use patterns of cultivated or fallowed fields that may provide habitat for this species. There would be no take of tri-colored blackbirds or other migratory birds in the Action area.
Swainson's hawk <i>Buteo swainsonii</i>	MBTA	NT	<b>Present.</b> There are CNDDDB records of this species in the action area. This species may nest in the action area but would not be affected by the Proposed Action because there would be no construction or change in land use patterns of cultivated or fallowed fields that may provide habitat for this species. There would be no take of this species or other migratory bird species in the Action area.
Burrowing owl <i>Athene cunicularia</i>	MBTA	NT	<b>Present.</b> There are CNDDDB records of this species in the action area. The Proposed Action does not involve any construction, ground-disturbing activities, or changes in land use patterns of cultivated or fallowed fields that may provide habitat for this species. There would be no take of burrowing owls.
Golden eagle <i>Aquila chrysaetos</i>	MBTA, BGEPA	NT	<b>Possible.</b> There is one CNDDDB record of nesting golden eagles from 1985 about five miles to the south of Flyin' J Ranch in steep basalt bluffs. Marginally suitable habitat for this species exists in Flyin' J Ranch. With the implementation of the provided avoidance measures, there would be no take of golden eagles.
Prairie falcon <i>Falco mexicanus</i>	MBTA	NT	<b>Possible.</b> There is one CNDDDB occurrence of a nesting prairie falcon (recorded between 1977 and 1984) about five miles to the south of Flyin' J Ranch in steep basalt bluffs. Marginally suitable habitat for this species is present in Flyin' J Ranch. With the implementation of the provided avoidance measures, there would be no take of this species.
California horned lark <i>Eremophila alpestris actia</i>	MBTA	NT	<b>Possible.</b> There is one CNDDDB record of this species from 1992 in a fallowed field near the City of Fresno Service Area. This species nests in open habitats like grasslands, prairies and golf courses, and may be present in the Action area. The Proposed Action does not involve any construction, ground-disturbing activities, or changes in land use patterns of cultivated or fallowed fields that may provide habitat for this species. There would be no take of this species.

Species	Status	Effects	Occurrence in the Study Area
Bald eagle <i>Haliaeetus leucophalus</i>	MBTA, BGEPA	NT	<b>Possible.</b> Nesting bald eagles have been documented within ten miles of Flyin' J Ranch and this species commonly winters at Millerton Lake. There is some marginally suitable habitat for this species on Flyin' J Ranch. With the implementation of the provided avoidance measures, there would be no take of bald eagles.
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	C MBTA	NE	<b>Absent.</b> There is one extirpated occurrence of this species from 1902 in Fresno Irrigation District. This species nests in large blocks of riparian habitat that are dominated by cottonwoods and willows and contain dense understory vegetation (Service 2008). The Action area does not contain suitable nesting habitat for this species.
MAMMALS			
Fresno kangaroo rat <i>Dipodomys nitratoides exilis</i>	E	NE	<b>Possible.</b> There are two CNDDDB records of this species from the 1930s within Fresno ID and one extirpated record within the City of Fresno Service Area. The Action area consists largely of agricultural and urban areas with only small isolated fragments of undeveloped habitat. It is extremely unlikely that this species would occur in the action area. The Proposed Action does not involve any ground-disturbance, construction, or conversion of native or fallowed lands. There would be no effect to this species.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	E	NE	<b>Possible.</b> There are a few CNDDDB recorded occurrences of this species near the action area, from the early 1990s. This species is unlikely to occur within the Action area due to a lack of suitable habitat. The Proposed Action would not involve any construction, ground-disturbing activities, or conversion of native or fallowed lands. There would be no effect to this species.
PLANTS			
Fleshy owl's-clover <i>Castilleja campestris</i> ssp. <i>succulenta</i>	T,X	NE	<b>Present.</b> There are CNDDDB records and critical habitat for this species within the action area in Fresno Irrigation District, International ID, Garfield ID, and along the Friant-Kern Canal. This species occurs within vernal pools located in annual grassland habitats. The Proposed Action would not involve any ground-disturbing activities, conversion of native or fallowed lands and would not alter the hydrology of any vernal pools. There would be no effect to this species.
California jewelflower <i>Caulanthus californicus</i>	E	NE	<b>Absent.</b> Historically, this species occurred in the City of Fresno Service Area, but was extirpated due to land conversion. There are no extant populations of this species within the Action area (Service 2013).
Palmate-bracted bird's-beak <i>Cordylanthus palmatus</i>	E	NE	<b>Absent.</b> There are no known populations of this species within the action area. This species only grows in saline-alkali soils within natural Valley sink scrub and alkali meadow habitats, which are not present within the Action area (Service 2009).

Species	Status	Effects	Occurrence in the Study Area
San Joaquin Valley Orcutt grass <i>Orcuttia inaequalis</i>	T,X	NE	<b>Possible.</b> This species occurred historically in Fresno ID and near Garfield WD, but has since been extirpated. There is a small parcel of critical habitat along the Friant-Kern Canal and a potentially extant population of this species about 8½ miles from the Flyin' J Ranch. This species requires deep vernal pools and is unlikely to occur in the action area (Service 2013). The Proposed Action would not involve the conversion of any native or fallowed lands, nor alter the hydrology of vernal pools. There would be no effect to this species or its critical habitat.
Hairy Orcutt grass <i>Orcuttia pilosa</i>	E,X	NE	<b>Absent.</b> There are no known populations or occurrences of this species within Fresno County. There would be no effect to this species or its critical habitat.
Hartweg's golden sunburst <i>Pseudobahia bahiifolia</i>	E	NE	<b>Possible.</b> There are CNDDDB records of this species near Fresno County Water Works No.18, but no records within the action area. This species grows in non-native grasslands associated with mima mounds, and is not expected to occur within the action area (Service 2007). The Proposed Action would not involve ground-disturbance, construction, or the conversion of native or fallowed land. There would be no effect to this species.
San Joaquin adobe sunburst <i>Pseudobahia peirsonii</i>	T	NE	<b>Present.</b> There are recent CNDDDB records of this species within the action area in Fresno ID. The Proposed Action would not involve any ground-disturbing activities, construction, or conversion of native or fallowed lands. There would be no effect to this species.
Keck's checker-mallow <i>Sidalcea keckii</i>	E, X	NE	<b>Absent.</b> There are no known populations of this species in the action area and no critical habitat for this species in the action area (Service 2012). There would be no effect to this species.
Greene's tuctoria <i>Tuctoria greenei</i>	E	NE	<b>Absent.</b> This species has been extirpated from Fresno County (Service 2007). There would be no effect to this species.
<p>1 Status= Listing of Federally special status species  <b>E:</b> Listed as Endangered  <b>MBTA:</b> Protected under the Migratory Bird Treaty Act  <b>BGEPA:</b> Protected under the Bald and Golden Eagle Protection Act  <b>NMFS:</b> Species under the Jurisdiction of the National Oceanic &amp; Atmospheric Administration Fisheries Service  <b>T:</b> Listed as Threatened  <b>C:</b> Candidate for federal listing  <b>X:</b> Critical Habitat designated for this species</p> <p>2 Effects = Effect determination  <b>NE:</b> No Effect from the Proposed Action to federally listed species  <b>NT:</b> No Take would occur from the Proposed Action to migratory birds</p> <p>3 Definition Of Occurrence Indicators  <b>Absent:</b> Species not recorded in study area and/or habitat requirements not met  <b>Possible:</b> Species not observed in the last 10 years in area  <b>Present:</b> Species recorded in or near action area and habitat present</p>			

### 3.3.2 Environmental Consequences

#### **No Action**

Under the No Action Alternative, there would be no impacts to biological resources since conditions would remain the same as existing conditions.

#### **Proposed Action**

Water from the Proposed Action would be delivered to contractors via the Friant-Kern Canal. Only existing infrastructure would be used and no ground-disturbing activities or construction of new facilities would be required to deliver the water. Some of the districts that could receive water in the Action Area contain designated critical habitat and/or records of federally listed species. The water associated with the Proposed Action would only be used on lands that are already in agricultural production, and would not be used to convert any native lands or lands that have been fallowed for three years or more. Furthermore, the water would not be used to change the land use patterns of any fallowed or cultivated fields that may provide suitable habitat for birds protected under the Migratory Bird Treaty Act. The Proposed Action does not include construction or ground-disturbing activities and would not alter the hydrology of any vernal pools.

The habitat on the Flyin' J Ranch consists of rolling topography and blue oak-foothill pine woodlands with a dense grass and shrub understory. The site is located on Kerckhoff Lake and contains a private residence, dirt roads, and a dirt landing strip for aircraft. Of the federally protected species listed in Table 7, only the Valley elderberry longhorn beetle, and nesting migratory birds may occur in the Action Area at Flyin' J Ranch. Elderberry bushes, which provide habitat for Valley elderberry longhorn beetles, may be present in the Action Area. The Proposed Action would not involve any alteration or removal of vegetation and elderberry shrubs, if present, would be avoided during installation of the pipeline. Although it is unlikely that California tiger salamanders would occur within the Flyin' J Ranch, all burrows would be avoided during the placement of the temporary pipeline to ensure that the species is not affected by the Proposed Action.

There have been records of bald eagles, golden eagles, and prairie falcons nesting within 10 miles of Flyin' J Ranch. Bald eagles typically nest in large trees near large bodies of water that contain abundant populations of fish, waterfowl, and/or other prey resources. Seventy percent of bald eagle nesting sites in California are associated with lakes greater than 494 acres in size (Detrich 1985). Kerckhoff Lake does not provide optimal nesting habitat for bald eagles because it has an area of only 160 acres, and does not support a large fish population. Golden eagles and prairie falcons typically nest in cliffs with overhanging ledges, but have also been observed nesting in large trees. The nearest records of nesting golden eagles and prairie falcons were from the early 1980s and occurred on the steep basalt bluffs of the San Joaquin River Gorge, about nine river miles downstream from Kerckhoff Lake (CNDDB 2014). The Flyin' J Ranch does not

contain any basalt bluffs or cliffs, but may provide marginally suitable habitat for nesting golden eagles or prairie falcons.

Eagles, and other migratory birds, that choose to nest near developed areas are not likely to be disturbed by the routine use of roads, homes, and other facilities in a given area if those types of disturbances occurred prior to their successful nesting activity in that area (Service 2007b). The Action area at the Flyin' J Ranch is subjected to frequent human disturbances associated with the residence, landing strip, and recreational activities on Kerchkoff Lake. The temporary pipeline would be installed by hand, and the site would be accessed via existing roads. The placement of the temporary pipeline would be similar in intensity to ongoing existing uses, and would pose very little risk of disturbing eagles or other migratory birds. Furthermore, the rolling topography and abundance of trees on the Flyin' J Ranch would act as visual screens to further reduce the likelihood of disturbing any migratory birds potentially nesting in the area (Service 2007b).

A Reclamation-approved biologist would survey the Flyin' J Ranch Action area for nesting bald eagles, golden eagles, and prairie falcons prior to the placement of the temporary pipeline. If any of these nests are found during the survey, a 330-foot buffer would be observed during pipeline installation in order to avoid disturbing the birds (Service 2007b). As a result, the Proposed Action would not result in the take of any bird protected pursuant to the Migratory Bird Treaty Act.

The water discharged into Kerckhoff Lake from Flyin' J Ranch would flow about 19 river miles down the San Joaquin River and into Millerton Lake. Approximately 50 AF of groundwater would be conveyed down the San Joaquin River each month; this amount of water is within the typical range of water level fluctuations in this area, and would not measurably affect water levels in the river.

With the implementation of the environmental commitments listed in Table 3, Reclamation has determined there would be *No Effect* to proposed or listed species or critical habitat under the Endangered Species Act 1973, as amended (16 U.S.C. §1531 et seq.) and *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.



## **Section 4 Consultation and Coordination**

### **4.1 Public Review Period**

Reclamation provided the public with an opportunity to comment on the Draft FONSI and Draft EA during a 15 day public review period. One comment letter was received. The comment letter and Reclamation's response to comments is included in Appendix A.

## **Section 5 Preparers and Reviewers**

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Lisa Carlson, Biology Technician, SCCAO

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Patricia Rivera, ITA, MP-400

Benjamin Lawrence, Natural Resources Specialist, SCCAO – reviewer

George Bushard, Repayment Specialist, SCCAO – reviewer

David E. Hyatt, Resources Management Division Chief – reviewer

## Section 6 References

Bureau of Reclamation (Reclamation). 2008. Policy for Accepting Non-Project Water into the Friant-Kern Canal and Madera Canals: Water Quality Monitoring Requirements. Mid-Pacific Region, South-Central California Area Office. March.

Detrich, P.J. 1985. The Status and Distribution of Bald Eagle in California. M.S. thesis. California State University, Chico. Chico, California.

Portz, Donald E., Shaun Root, and Charles Hueth. 2013. *Central Valley Steelhead Monitoring Plan for the San Joaquin River Restoration Area: 2013 Monitoring Results for National Marine Fisheries Service Permit 16608*. Rep. Denver, CO: Bureau of Reclamation: Denver Technical Services Center.

San Joaquin River Restoration Program. 2014. Background and History. Website: <http://restoresjr.net/background.html>.

Simmons, Melvin C. 2008. Hydrogeologic Evaluation Phase II Study for Flyin' J Ranch Project Fresno County, California. Geological Consultants. Report prepared for BSR Entertainment Authority. Project No. G1208. December.

U.S. Fish and Wildlife Service (Service). 2002. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon.

U.S. Fish and Wildlife Service (Service). 2007a. Greene's Tuctoria (*Tuctoria greenei*) 5 Year Review: Summary and Evaluation. Sacramento, California.

U.S. Fish and Wildlife Service (Service). 2007b. *National Bald Eagle Management Guidelines*.

U.S. Fish and Wildlife Service (Service). 2007c. *Pseudobahia bahiifolia* (Hartweg's Golden Sunburst) and *Pseudobahia peirsonii* (San Joaquin Adobe Sunburst) 5 Year Review: Summary and Evaluation. Sacramento, California.

U.S. Fish and Wildlife Service (Service). 2008. Proposed Rules, vol: 73 § Review of Native Species That Are Candidates for Listing as Endangered or Threatened; *Yellow-Billed Cuckoo*.

U.S. Fish and Wildlife Service (Service). 2009a. Hairy Orcutt Grass (*Orcuttia pilosa*) 5 Year Review: Summary and Evaluation. Sacramento, California.

U.S. Fish and Wildlife Service (Service). 2009b. Palmate Bracted Bird's-Beak (*Cordylanthus palmatus*=*Chloropyron palmatum*) 5 Year Review: Summary and Evaluation. Sacramento, California.

U.S. Fish and Wildlife Service (Service). 2010. San Joaquin Kit Fox (*Vulpes macrotis mutica*) 5 Year Review: Summary and Evaluation. Sacramento, California.

U.S. Fish and Wildlife Service (Service). 2012a. Giant Garter Snake (*Thamnophis gigas*) 5 Year Review: Summary and Evaluation. Sacramento, California.

U.S. Fish and Wildlife Service (Service). 2012b. *Sidalcea keckii* (Keck's Checkermallow) 5 Year Review: Summary and Evaluation. Sacramento, California.

U.S. Fish and Wildlife Service (Service). 2013a. *Caulanthus californicus* (California Jewelflower) 5 Year Review: Summary and Evaluation. Sacramento, California.

U.S. Fish and Wildlife Service (Service). 2013b. *Orcuttia inequalis* (San Joaquin Valley Orcutt Grass) 5 Year Review: Summary and Evaluation. Sacramento, California.

## **Appendix A**

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### **Comment Letter and Reclamation's Response to Comments**



# ARVIN-EDISON WATER STORAGE DISTRICT

October 28, 2014

Via Electronic Mail ([remerson@usbr.gov](mailto:remerson@usbr.gov)) &  
Via Facsimile (559-487-5397)

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Rain Emerson  
U.S. Department of the Interior  
Bureau of Reclamation  
1243 N. Street  
Fresno CA, 93721

### ***Re: Flying J Ranch 5-Year Warren Act Agreement Draft FONSI & EA Comments***

Dear Ms. Emerson:

Thank you for providing Arvin-Edison Water Storage District (AEWSD) the opportunity to comment on the Flying J Ranch 5-Year Warren Act Agreement Draft Environmental Assessment and Findings of No Significant Impact (EA/FONSI-14-019) regarding the proposed Warren Act Contract involving conveyance and storage of Non-Central Valley Project water supplies (Project) within Friant Division facilities up to 3,000 acre-feet over the 5-year period.

AEWSD is generally supportive of water management programs such as described in the EA/FONSI. We do, however, request clarification and/or additions to the final EA/FONSI regarding the use of storage and water quality statement.

### **Use of Storage**

AEWSD assumes the Project rescheduled/carryover water is for a one year basis only, consistent with the Friant Operational Guidelines (FOG) dated March 18, 2005 and/or Rescheduled Guidelines (collectively referred to as Guidelines). The Guidelines do not allow for multi-year storage.

In addition, if USBR would deviate from the Guidelines and is considering approval of multi-year storage, then the 5% loss factor should be applied each year thereafter.

The spill determination shall also follow Guidelines.

AEWSD requests that specific reference to the Guidelines be made in the final EA/FONSI.

### **Water Quality Statement**

EA Section 3.2.2 (Cumulative Impacts, page 12) states the following:

*“As pumped groundwater is required to not change receiving water quality and meet Reclamation’s water quality standards prior to introduction, no cumulative adverse water quality impacts are expected.”*

**Rain Emerson**  
**October 28, 2014**  
**Page 2**

AEWSD-2  
cont. ↑ Provided the comparison of water qualities on Table 6 (EA page 9), the above statement appears contradictory. As an example, the non-project water (groundwater) TDS is more than 16 times higher than the San Joaquin River/Kerkoff Reservoir water TDS and by definition would degrade the quality of the receiving water. As you may be aware, the additional salt loading to AEWSD's contract supply from Millerton Lake is a great concern.

Thank you, and again we appreciate the opportunity to provide input into your Project. If you have questions or comments, please contact me.

Sincerely,



Steve Collup  
Engineer-Manager

cc: Jeevan Muhar, Staff Engineer  
Michael Jackson, USBR  
Scott Taylor, USBR

## **Response to Arvin-Edison Water Storage District Comment Letter, October 28, 2014**

**AEWSD-1** Comment noted. Any storage of groundwater pumped from Flyin' J Ranch over the 5-year Warren Act contract period would comply with the Friant Operational Guidelines dated March 18, 2005 and the then current Friant Rescheduling Guidelines. The Final Environmental Assessment has been updated to indicate this (see page 5 of the Final EA).

**AEWSD-2** Although, the salinity of this groundwater is higher than that of the receiving water, there will be sufficient dilution at the point of discharge to prevent any measurable salt loading in Millerton Lake. In 2014, a critically dry year, flow in the San Joaquin River passing Auberry ranged from 17 to 956 cubic feet per second (cfs), with a median flow of 21 cfs (California Data Exchange Center 2015). The total dissolved solids (TDS) of this water is estimated to be less than 25 milligram per liter (mg/L) based on Reclamation data for Millerton Lake. The Proposed Action would add up to 1.1 cfs of groundwater pumped from two wells at Flyin' J Ranch with a TDS of 235 mg/L (Simmons Engineering 2008). The addition of this water to the minimum San Joaquin River flow would increase the TDS in the river an additional 13 mg/L for a total of 38 mg/L (25 mg/L plus 13 mg/L).

Further, raw water from well #8 and #10 and the maximum salinity of the blended groundwater from these wells are below the 250 mg/L Title 22 domestic water quality standard for salinity (State Water Resources Control Board 2015) and below the 450 mg/L irrigation suitability standard (Ayers & Westcot 1985) for the most sensitive citrus, vineyards, and stone fruit crops grown in the Friant Division (Ayers 1985).

In addition, as stated in Table 3 of EA-14-019 page 8 of the Final EA), the project proponents are required to meet Reclamation's water quality requirements prior to introduction. Frequent measurements of salinity in the blended groundwater will be done prior to and during introduction to confirm that the blend of well water remains below 500  $\mu\text{S}/\text{cm}$  electrical conductivity (equivalent to about 300 mg/L TDS) per Reclamation's water quality requirements.

### **References:**

Ayers, R.S. 1985. Table 5. Relative Salt Tolerance of Agricultural Crops.

Ayers, R.S. and D.W. Westcot. 1985. Water Quality for Agriculture, Food and Agriculture Organization of the United Nations - Irrigation and Drainage Paper No. 29, Rev. 1. Table 1. Guidelines for Interpretations of Water Quality for Irrigation. Website: <http://www.fao.org/DOCREP/003/T0234E/T0234E00.HTM>. Accessed: March 2015.



California Data Exchange Center. 2015. Daily average flow in the San Joaquin River at Auberry calculated from real-time measurements taken between January 1, 2014 and March 16, 2015.

Simmons, Melvin C. 2008. Hydrogeologic Evaluation Phase II Study for Flyin' J Ranch Project Fresno County, California. Geological Consultants. Report prepared for BSR Entertainment Authority. Project No. G1208. December.

State Water Resources Control Board. Title 22 Code of Regulations, Division 4 Environmental Health, Chapter 15 Domestic Water Quality and Monitoring Regulations. §64400 et seq, as amended. Table 64449-B Secondary Maximum Contaminant Levels "Consumer Acceptance Contaminant Level Ranges. Website:  
[http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Lawbook.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Lawbook.shtml). Accessed: March 2015.

## **Appendix B**

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### **Reclamation's Cultural Resources Determinations**

# **CULTURAL RESOURCE COMPLIANCE**

## **Reclamation Division of Environmental Affairs**

### **MP-153**

**MP-153 Tracking Number:** 14-SCAO-170

**Project Name:** Flyin' J Ranch and Point Millerton Ranch 5-year Warren Act Contracts for Conveyance and Storage of Groundwater within Friant Division Facilities

**NEPA Document:** SCCAO-EA-14-019

**NEPA Contact:** Rain Emerson, Natural Resource Specialist

**MP 153 Cultural Resources Reviewer:** William Soule, Archaeologist

**Date:** 04/22/2014

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Reclamation proposes to approve Warren Act contracts with Flyin' J Ranch and Point Millerton Ranch for conveyance and storage of groundwater within and through Friant Division facilities for delivery to Friant Division and Cross Valley contractors located within Fresno and Madera counties. This is the type of undertaking that does not have the potential to cause effects to historic properties, should such historic properties be present, pursuant to the National Historic Preservation Act (NHPA) Section 106 regulations codified at 36 CFR Part 800.3(a)(1).

The source of the non-CVP water would be groundwater pumped from existing wells beneath Flyin' J Ranch and Point Millerton Ranch as described below. Four existing wells within Flyin' J Ranch would pump approximately 67.2 acre-feet (AF) per month over the five year period. Two of the four wells have existing electrical power that would be used to power the pumps (wells #1 and #4). The remaining two wells (wells #8 and #10) would require placement of diesel generators with spill containment to operate the pumps. Pumped groundwater would be introduced into Kerckhoff Reservoir from a temporary aboveground pipeline connected to each of the four wells. The pipeline would be placed so that existing rocks at the point of introduction would naturally diffuse the introduced groundwater to minimize erosion. No ground disturbance would be required for introduction of the pumped groundwater. From Kerckhoff Reservoir, introduced groundwater would be conveyed down the San Joaquin River into Millerton Lake where it would be either be directly delivered or stored for later delivery, less 5 percent conveyance losses, to Friant Division and Cross Valley contractors located within Fresno County either directly from Millerton Lake or from the Friant-Kern Canal (FKC).

One existing well located within Point Millerton Ranch would pump up to 13.2 AF per month over the five-year period via an existing 25 horsepower submersible pump. Pumped groundwater would be introduced into Finegold Creek through an existing underground pipeline that generally follows the contours of Point Millerton Road, Pebble Beach Road, and Road 216.

**CULTURAL RESOURCE COMPLIANCE**  
**Reclamation Division of Environmental Affairs**  
**MP-153**

No ground disturbance would be required for introduction of the pumped groundwater. Once in Finegold Creek, pumped groundwater would be conveyed to Millerton Lake either for direct delivery or stored for later delivery, less 10 percent conveyance losses, to Friant Division contractors located within Madera County either directly from Millerton Lake or from the Madera Canal.

After reviewing the materials submitted by SCAO, I concur with a determination in SCCAO-EA-14-019 which states that neither the proposed action nor the no action alternative have the potential to cause effects to historic properties pursuant to the NHPA Section 106 regulations codified at 36 CFR Part 800.3(a)(1). With this determination, Reclamation has no further NHPA Section 106 obligations. This memorandum is intended to convey the completion of the NHPA Section 106 process for this undertaking. Please retain a copy in the administrative record for this action. Should changes be made to this project, additional NHPA Section 106 review, possibly including consultation with the State Historic Preservation Officer, may be necessary. Thank you for providing the opportunity to comment.

CC: Cultural Resources Branch (MP-153), Anastasia Leigh – Regional Environmental Officer (MP-150)

## **Appendix C**

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### Reclamation's Indian Trust Assets Determination



Emerson, Rain &lt;remerson@usbr.gov&gt;

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## 14-019 Project Description for Review

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**RIVERA, PATRICIA** <privera@usbr.gov>

Fri, Apr 18, 2014 at 10:04 AM

To: "Emerson, Rain" &lt;remerson@usbr.gov&gt;, Kristi Seabrook &lt;kseabrook@usbr.gov&gt;

Rain,

I reviewed the proposed action to issue five-year (through February 28, 2019) Warren Act contracts for the conveyance and storage of non-Central Valley Project (non-CVP) water within Friant Division facilities to Friant Division and Cross Valley contractors located either within Madera or Fresno counties. Conveyance and storage of non-CVP water in federal facilities is subject to available capacity, conveyance losses, and Reclamation's then current water quality requirements. Source of the non-CVP water would be groundwater pumped from existing wells beneath Flyin' J Ranch and Point Millerton Ranch.

The proposed action does not have a potential to impact Indian Trust Assets.

Patricia Rivera  
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