

RECLAMATION

Managing Water in the West

Final Environmental Assessment

Madera Irrigation District One-Year Transfer to North Kern Water Storage District and/or Semitropic Water Storage District (2011-2012)

EA 11-042



**U.S. Department of the Interior
Bureau of Reclamation
Mid Pacific Region
South Central California Area Office
Fresno, California**

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Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to 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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List of Acronyms and Abbreviations

af	acre-feet (the volume of water one foot deep and an acre in area)
af/y	acre-feet per year
APE	area of potential effects
CAA	Clean Air Act
cfs	cubic-feet per second
Class 1 water	Firm supply of water stored in or flowing through Millerton Lake
Class 2 water	Undependable water in addition to the supply of Class 1 Water which can be made available subject to the contingencies for delivery from Millerton Lake
CVC	Cross Valley Canal
CVP	Central Valley Project
CVPIA	Central Valley Improvement Act
DWR	California Department of Water Resources
EA	Environmental Assessment
ESA	Endangered Species Act
FKC	Friant-Kern Canal
FWCA	Fish & Wildlife Coordination Act
ITA	Indian Trust Asset
KCWA	Kern County Water Authority
KR	Kern River
KTWD	Kern-Tulare Water District
MBTA	Migratory Bird Treaty Act
M&I	municipal and industrial
MP	milepost
NHPA	National Historic Preservation Act
NKWSD	North Kern Water Storage District
NRHP	National Register of Historic Places
Reclamation	Bureau of Reclamation
Semitropic	Semitropic Water Storage District
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
State	State of California
SWP	California State Water Project
Table A Water	State Water Project water
USFWS	U. S. Fish and Wildlife Service

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1 Purpose and Need

1.1. Background

The year 2011 has provided abundant water supplies in the Friant Unit (Friant) of the Central Valley Project (CVP). As it has done in the past under these circumstances, Madera Irrigation District (MID) is proposing to perform a one year transfer of Friant Class 1 and/or Class 2 water that is available above its current year needs to North Kern Water Storage District (NKWSD) and/or Semitropic Water Storage District (Semitropic).

1.2 Purpose and Need

MID desires to maximize the beneficial use of its Friant water supplies by performing a one year transfer of a portion of its Class 1 and/or Class 2 water supplies that exceeds their current demand. As with transfers of this type in past years, the resulting revenue would support MID's operations, maintenance and facility improvement programs. MID does not currently have the storage and recharge capacity for excess Class 2 water and carrying over Class 1 water would not be economical.

NKWSD and/or Semitropic could bank the transferred water in their facilities for recovery and use within their service areas or the transferred water may be delivered to NKWSD's and/or Semitropic's internal customers in-lieu of the customers pumping groundwater.

1.3 Scope

This Environmental Assessment (EA) has been prepared to examine the potential impacts on environmental resources as a result of a one year transfer prior to February 28, 2012 of up to 20,000 AF of MID's Friant Class 1 and/or Class 2 supplies to NKWSD and/or Semitropic for existing agricultural or municipal and industrial purposes. This EA has also been prepared to examine the potential impacts to the affected environment associated with the No Action Alternative. All of the operations under this proposed project would entail use of existing infrastructure and would be performed in compliance with the January 19, 2001 Friant Biological Opinion (File Number 1-1-01-F-0027).

Reclamation provided the public with an opportunity to comment on the draft EA/FONSI from August 22, 2011 through September 9, 2011; no comments were received.

1.4 Potential Issues

This EA will analyze the Proposed Action and No Action Alternative to determine the potential direct, indirect and cumulative impacts to the following resources:

- Water Resources
- Land Use
- Biological Resources
- Cultural Resources
- Indian Trusts Assets
- Indian Sacred Sites
- Environmental Justice
- Socioeconomic Resources
- Air Quality
- Global Climate Change

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2 Alternatives Including the Proposed Action

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not approve MID's transfer of its CVP Water in excess to its immediate needs to NKWSD and/or Semitropic. MID would not be able to maximize the beneficial uses of its available CVP water. NKWSD and Semitropic would not realize benefits to their aquifer that would have been accrued by the import of this CVP Water.

2.2 Proposed Action

Under the Proposed Action, Reclamation would approve MID's transfer of up to 20,000 AF of its Friant Water Class 1 and/or Class 2 water with delivery to occur before February 28, 2012 to NKWSD and/or Semitropic. The water would be banked within the existing NKWSD/Semitropic facilities or delivered to internal customers in-lieu of groundwater pumping. This transfer would be contingent on: 1) availability of wheeling capacity in the Friant Kern Canal, 2) wheeling capacity in locally owned conveyances used by NKWSD and Semitropic, and 3) available recharge capacity at NKWSD or Semitropic. NKWSD and/or Semitropic would only accept the transfer water if the action can be performed within the limits of the existing environmental documentation/permits for NKWSD and Semitropic and only if NKWSD and Semitropic have existing demands.

The Proposed Action is subject to the following conditions:

- The water: 1) would only be used for beneficial purposes and in accordance with Federal Reclamation law and guidelines; 2) transferred will comply with all federal, state, local, and tribal law, and requirements imposed for protection of the environment and Indian Trust Assets; and 3) would be used within the Friant permitted place of use and NKWSD and/or Semitropic service areas;
- The water would not be used to place untitled or new lands into agricultural production, or to convert undeveloped land to other uses;
- The Proposed Action would not interfere with the normal CVP operations; and
- The Proposed Action would not require the construction of any new water conveyance, pumping, diversion, recharge, storage or recovery facilities.

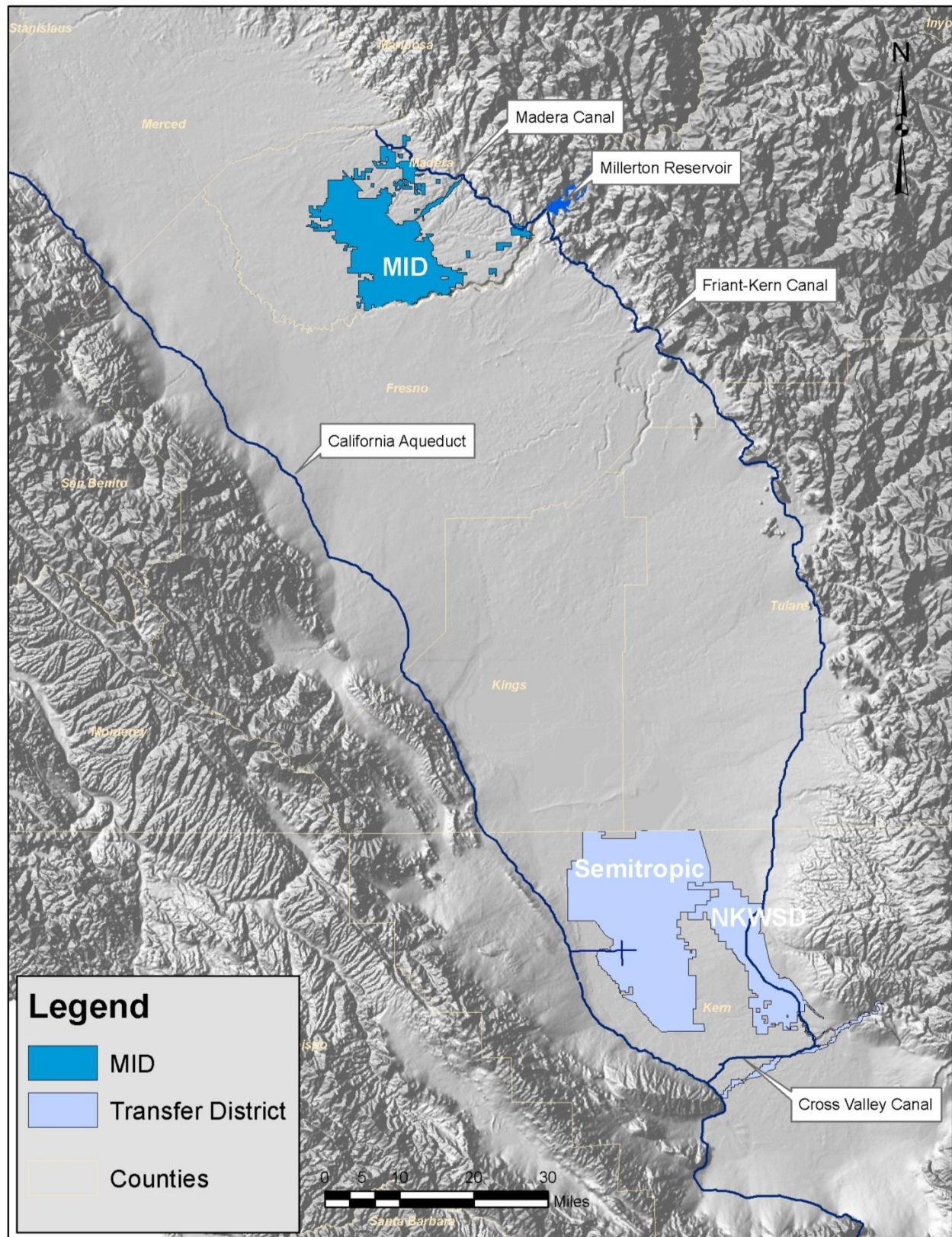
NKWSD holds perpetual contractual rights to water rights on the Kern River with available supplies ranging from less than 10,000 AF in dry years to almost 400,000 AF in wet years. In years when there is inadequate surface water availability, farmers supplement their supplies by pumping groundwater. In the early 1950's the District began to develop recharge basins and recovery wells to enable the recharge and recovery of surface water periodically available in excess of current needs (collectively referred to as water banking). NKWSD has employed a variety of water banking and transfer programs since that time, including several transactions with CVP and State Water Project (SWP) Contractors. NKWSD banks water using recharge basins that percolate applied water into the underlying aquifer for recovery at a later date (direct

recharge) and also using in-lieu methods. In-lieu recharge is an operation in which the imported surface water is delivered to farmers “in-lieu” of their normal groundwater pumpage, resulting in a gain to the underlying aquifer equal to the volume of delivered surface water. NKWSD has more than 200,000 AF per year of recharge capacity. The district has more than 100,000 AF per year of recovery capacity through district operated recovery wells equipped with electric motors. Up to 20,000 AF of transferred MID CVP Friant Class 1 and/or Class 2 water would be released from Millerton Reservoir, conveyed south via the Friant-Kern Canal (FKC), and delivered to NKWSD at mileposts 130.0 and/or 144.9. NKWSD would take control of the delivered water and recharge it using direct or in-lieu means. The transfer described here would be subject to consent from Reclamation, and the Friant Water Authority (FWA) to ensure that they do not interfere with normal operations.

Semitropic holds a contract with the Kern County Water Agency (KCWA) for 155,000 AF per year of SWP Table A water. In years when there is inadequate surface water availability, farmers supplement their supplies by pumping groundwater. Semitropic has been operating a water bank since 1995 using both direct recharge and in-lieu recharge. The program has up to 400,000 AF per year of recharge capacity. The program has up to 423,000 AF per year of recovery capacity through district and farmer owned recovery wells that are equipped with electric motors. Up to 20,000 AF of transferred MID CVP Friant Class 2 water would be released from Millerton Reservoir and conveyed south via the FKC to mileposts 130.0, 144.9, 134.4 and 137.2.

The transfer described here would be subject to consent from Reclamation and the FWA to ensure that they do not interfere with normal operations. When needed, at a later date, NKWSD and/or Semitropic could recover the transferred water using existing recovery wells equipped with electric motors. The recovered water would be conveyed to existing agricultural users within the respective service area boundaries of NKWSD and/or Semitropic using existing internal distribution facilities in compliance (where applicable) with the CVPIA transfer guidelines and the Friant Repayment Contracts.

Figure 1 District Boundaries



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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 Water Resources

3.1.1 Affected Environment

Madera Irrigation District

Madera Irrigation District (MID) encompasses an area of 128,292 acres, which includes the 15,000 acres annexed as part of the Hidden Dam contract with Reclamation. MID uses a gravity irrigation distribution system of approximately 300 miles of open flow canal systems, as well as 150 miles of pipelines. A large segment of the City of Madera is included within MID's area.

MID has a Perpetual 9d Repayment Contract with Reclamation for 85,000 acre-feet per year (AF/Y) of Class 1 and 186,000 AF per year of Class 2 water from the Friant Division of the CVP. In an average year, MID receives 100% of their Class 1 water and approximately 48% of their Class 2 water, totaling approximately 174,000 AF/Y. In addition to the water resources involved in the proposed transfer, MID has the following additional supplies. In 1975 Hidden Dam was completed on the Fresno River providing a more regulated flow. MID has entered into a Perpetual 9d Repayment Contract with Reclamation for water from Hensley Lake behind Hidden Dam for 24,000 AF/Y. MID also has three pre-1914 water rights which in total average approximately 20,000 AF per year from the Fresno River, Soquel Creek and Big Creek (MID, 2001).

North Kern Water Storage District

North Kern Water Storage District (NKWSD), a non-long term CVP Contractor within the CVP Place of Use, is located south-southwest and downstream from MID and is bisected by the FKC. The approximately 60,000 acres of land within NKWSD are fully developed for irrigated agriculture with water supplies principally from the Kern River and pumped groundwater. NKWSD has a permanent contract for Kern River water with the City of Bakersfield. Historical surface water supplies from the Kern River delivered to NKWSD have ranged from less than 10,000 AF/Y to nearly 400,000 AF/Y. As a result of this highly variable water supply, NKWSD has developed an extensive groundwater recharge, banking and extraction program utilizing the groundwater basin to regulate its water supplies. The FKC turnouts that would be used for the conveyance of MID Friant water to NKWSD are located at mileposts 130.0 and 144.9. The turnout at milepost 130.0 delivers water directly into the Poso Creek channel. The turnout at milepost 144.9 delivers water to NKWSD's 8-1 lateral which ties into NKWSD's Calloway Canal.

Semitropic Water Storage District

Semitropic Water Storage District (Semitropic) is located in north-central Kern County in the San Joaquin Valley, about 20 miles northwest of the City of Bakersfield. The total area of Semitropic is 220,000 acres with about 159,000 acres irrigated. Semitropic was organized in

1958 for the purpose of supplying supplemental water within its service area boundaries (Semitropic 2006a). Semitropic obtains surface water from local supplies and from its contract with the KCWA for 155,000 AF per year of SWP Table A water. The SWP water is pumped from the Delta and conveyed through the California Aqueduct. The SWP water can be stored in the State's share of San Luis Reservoir for subsequent conveyance in the California Aqueduct to Semitropic (Semitropic 1997).

In 1995, Semitropic began implementation of the Semitropic Groundwater Banking and Exchange Program. The Semitropic water bank is a long-term program designed to increase operational reliability and flexibility, and optimize the distribution and use of available water resources between Semitropic and banking partners. Under the Semitropic program, banking partners deliver a portion of their excess SWP, CVP or other surface water supplies to Semitropic during periods when such water is available. Semitropic may use this water in-lieu of pumping groundwater for irrigation or directly recharge the underlying groundwater basin. Upon request, Semitropic returns the banking partner's previously stored water by either: (i) pumping the stored water from Semitropic's groundwater basin through pump-back facilities into the California Aqueduct and provided to DWR for delivery to the banking partner (and by exchange to the banking partners located north of Semitropic); or (ii) Semitropic retains the stored water for its own use in exchange for an equivalent portion of its SWP water supply. (Semitropic 1997).

3.1.1.1 Groundwater Resources

The project area lies within the San Joaquin River Valley and Tulare Lake Hydrologic Regions, including the Madera and Kern County Groundwater Sub-Basins. In general, groundwater quality throughout the region is suitable for most urban and agricultural uses with only local impairments. The primary constituents of concern are high nitrate, arsenic, and organic compounds (DWR, 2005).

San Joaquin River Hydrologic Region

The San Joaquin River Hydrologic Region covers approximately 9.7 million acres (15,200 square miles) and includes all of Calaveras, Tuolumne, Mariposa, Madera, San Joaquin, and Stanislaus counties, most of Merced and Amador counties, and parts of Alpine, Fresno, Alameda, Contra Costa, Sacramento and El Dorado Counties. The region is heavily reliant on groundwater. Changes in groundwater levels are evaluated on annual water level measurements by the Department of Water Resources (DWR) and cooperators. On average, the sub-basin water level has increased by 2.2 feet total from 1970 through 2000.

MID is located entirely in the Madera Groundwater Sub-Basin. The sub-basin has a surface area of 614 square miles and lies entirely within Madera County. Groundwater in the sub-basin is recharged by natural river and stream seepage, deep percolation of irrigation water, canal seepage, and intentional recharge. Groundwater flow is generally to the southwest in the eastern portion of the sub-basin and to the northwest in the western portion. Locally, however, groundwater flow directions vary significantly because of the intense agricultural, municipal, and industrial groundwater pumping, which also has caused overdraft in a variety of locations. The amount of groundwater pumping within the Madera sub-basin varies from year to year, depending on the availability of MID surface water, precipitation, and temperature. In critically dry years, groundwater pumping can more than double over the amount of pumping during wet

years. As detailed in MID's AB3030 Groundwater Management Plan (GMP) and in DWR's Bulletin 118 (California Department of Water Resources 2004), the Madera sub-basin has been subjected to severe long-term groundwater overdraft. A variety of overdraft estimates has been compiled for various portions of the basin. At the request of MID, consultants compiled the results of these various efforts to estimate overdraft for the entire basin. Based on the compiled prior work and independent calculations, the consultant estimated an average groundwater overdraft of 100,000 AF per year as of 2000 (Schmidt pers. comm.). The recent draft Integrated Regional Water Management Plan substantiated these findings and indicated overdraft could be as much as 200,000 AF per year by 2030 (Madera County 2008). Groundwater levels in the Madera sub-basin have declined an average of 67 feet since 1945 and 30 feet since 1980 (California Department of Water Resources 2005). Although there have been some years of slight recovery, the overall trend is downward. MID is developing a groundwater recharge project however during the time of the proposed action they will not have the storage and recharge capacity for excess Class 2 water. As with transfers of this type in past years, the resulting revenue would support MID's operations, maintenance and facility improvement programs which may include storage and recharge facilities.

Tulare Lake Hydrologic Region

The Tulare Lake Hydrologic Region covers approximately 10.9 million acres (17,000 square miles) and includes all of Kings and Tulare Counties and most of Fresno and Kern Counties. The extensive use of groundwater has historically caused subsidence of the land surface primarily along the west side and south end of the San Joaquin Valley. Groundwater levels were generally at their lowest levels in the late 1960s, prior to importation of surface water. Water levels gradually increased to a maximum in about 1987-88 dropping again during the 1987-92 drought. Through a series of wet years after the drought, 1998 water levels recovered to nearly 1987-88 levels (DWR 2003).

NKWSD and Semitropic are located entirely in the Kern County Groundwater Sub-Basin. The sub-basin has a surface area of just under two million acres and underlies most of western Kern County. Natural recharge is primarily from stream seepage along the eastern sub-basin and the Kern River, and recharge of applied irrigation water; however, is the largest contributor (DWR, 2006).

Review of the sub-basin indicate that except for seasonal variation resulting from recharge and pumping, the groundwater levels in wells have remained relatively unchanged from 1970 to 2000 (DWR, 2006). In addition to other water providers in Kern County, NKWSD and Semitropic have adopted AB 3030 water management plans. The districts are also participants in monitoring committees that were established to monitor the impacts of banking programs. The purpose of the committees is to ensure that projects do not result in adverse impacts to water levels, groundwater quality, or land subsidence. Groundwater quality is compared with health-based thresholds established by the U.S. Environmental Protection Agency and the California Department of Public Health. Most detections of organic constituents are below health-based thresholds.

3.1.1.2 Surface Water Resources

Friant Dam/Millerton Lake

Friant Dam is located on the San Joaquin River, 25 miles northeast of Fresno, California. Completed in 1942, the dam is a concrete gravity structure, 319 feet high, with a crest length of 3,488 feet. Millerton Lake was created as a result of Friant Dam and first stored water on February 21, 1944. Millerton Lake has a total capacity of 520,528 AF, a surface area of 4,900 acres, and is approximately 15 miles long. The reservoir provides for recreation such as boating, fishing, picnicking, and swimming.

Madera Canal

The Madera Canal carries water north 35.9 miles from Friant Dam to furnish lands in Madera and a portion of Merced Counties with supplemental and new irrigation supply. The Madera Canal was completed in 1945, has an initial capacity of 1,000 cubic-feet per second (cfs), decreasing to 625 cfs at the Chowchilla River. In 1965, the canal lining from the head works to milepost 2.09 was raised so that 1,250 cfs could be delivered.

Friant-Kern Canal

The Friant-Kern Canal (FKC) is operated by the FWA and carries water south 151.8 miles from Friant Dam to its terminus at the Kern River, four miles west of Bakersfield. The FKC has an initial capacity of 5,000 cfs that gradually decreases to 2,000 cfs at its terminus in the Kern River (Reclamation, 2009). The FKC is a part of the CVP, which annually delivers up to seven million AF of water for agricultural, urban, and wildlife use. The water is used for municipal and industrial, and agricultural purposes in Fresno, Tulare, and Kern Counties. The water conveyed in the FKC is from the San Joaquin River and is considered to be of good quality because it originates from snow melt from the Sierra Nevada. Salinity measured as total dissolved solids (TDS) typically average less than 50 mg/L. Farmers in the Friant Division sometimes need to apply gypsum or other chemicals to raise the Sodium Absorption Ratio (SAR) to allow the water to percolate through charged soil particles (Reclamation, 2007). Non-CVP water proposed to be introduced into the FKC is required to meet the State of California water quality standards of Title 22 and/or Reclamation's water quality policy.

Kern River

The Kern River is about 165 miles long and is the southernmost river in the San Joaquin Valley. The river originates from the Sierra Nevada Mountains on the eastern side of Tulare County and terminates on the west side of Kern County where it is mainly diverted for local water supplies. When the Kern River enters Kern County, it deposits into Lake Isabella behind Isabella Dam. Below the dam, the river is highly diverted through a series of canals to irrigate farms in the southern San Joaquin Valley and provide municipal water supplies to a portion of the City of Bakersfield and surrounding areas. However, the FKC joins the river approximately four miles west of downtown Bakersfield. Kern River water quality is generally similar to that in the FKC since it also originates from snow melt in the Sierra Nevada.

3.1.2 Environmental Consequences

3.1.2.1 No Action

Under the No Action Alternative, Reclamation would not approve the transfer of MID Friant Class 1 and/or Class 2 water to NKWSD and/or Semitropic. As a result, surface water supplies would be the same as existing conditions described above in the affected environment. There would be no impacts to surface water resources, groundwater resources or conveyance facilities as conditions would remain the same as existing conditions.

Under the No Action Alternative MID would not benefit from the transfer of Class 1 and/or Class 2 water that exceeds current demand. In addition, without the Proposed Action, the Kern County Groundwater Sub-Basin underlying NKWSD and Semitropic would not benefit from the contribution of 10 percent of the recharged good quality water that would have been left behind as a result of the Proposed Action.

3.1.2.2 Proposed Action

Under the proposed action up to 20,000 AF of transferred Friant Class 1 and/or Class 2 water could be banked in NKWSD and/or Semitropic's facilities for later recovery and used within their service areas or the transferred water may be delivered to internal customer's in-lieu of the customers pumping groundwater. The Proposed Action would improve water supply reliability and operational efficiency. No CVP or SWP water user would change historic land and water management practices as a result of the Proposed Action. CVP operations and facilities would not vary considerably under either alternative.

No new facilities would be needed as a result of the Proposed Action. The Proposed Action would not interfere with the normal operations of the CVP facilities, nor would it impede any CVP obligations to deliver water to other contractors or to local fish and wildlife habitat. The FWA manages the FKC. This agency would continue to manage this facility in such a manner that normal operations would not be hindered by the Proposed Action. Likewise, NKWSD and Semitropic will continue to manage their conveyances in such a manner that normal operations of their systems would not be hindered by the Proposed Action. Delivery of transferred water involved with the Proposed Action would occur when excess capacity exists. The capacities of the conveyance facilities would not change, and therefore water service or delivery obligations for these conveyances would continue as they have in the past. Taken together, the Proposed Action would not have adverse impacts on conveyance facilities or surface water resources.

The Proposed Action would decrease the reliance on groundwater pumpage of NKWSD and Semitropic. The Proposed Action would result in a small net increase in groundwater levels since more surface water would be delivered to the groundwater sub-basin underlying NKWSD and Semitropic than would have occurred absent the project. The Proposed Action would not further deplete groundwater supplies or interfere with groundwater recharge (that would otherwise occur). Taken together, the Proposed Action could result in a net rise in groundwater levels within the San Joaquin River and Tulare Lake Hydrologic Regions.

Application of the transferred water from the FKC in NKWSD and Semitropic could result in a beneficial impact to groundwater quality since the quality of FKC water is better than that of the underlying aquifer. Therefore, the Proposed Action could have beneficial impacts on groundwater resources.

NKWSD and Semitropic have conducted monitoring programs for several decades so that any adverse groundwater impacts of water banking could be mitigated. The monitoring program is overseen by a committee made up of Semitropic, Buena Vista Water Storage District, Rosedale-Rio Bravo Water Storage District, SWID, NKWSD, SSJMUD and banking participants. KCWA and DWR are interested parties and participate in committee activities and water scheduling. NKWSD monitoring indicates that the wells that are currently used for recovery are in

compliance with Reclamation pump-in requirements. Likewise, Semitropic monitoring indicates that water recovered by Semitropic back to the California Aqueduct has been in compliance with DWR requirements for pump-in to the California Aqueduct.

There would be no adverse impacts to water quality as a result of the Proposed Action.

3.2 Land Use

3.2.1 Affected Environment

The land use is primarily irrigated agriculture with some urbanization.

3.2.2 Environmental Consequences

3.2.2.1 No Action

No changes to land use would occur under the No Action Alternative and conditions would likely remain the same as existing conditions as described above in the affected environment.

3.2.2.2 Proposed Action

The transferred water would be reregulated through the existing NKWSD and Semitropic banking facilities or directly delivered to customers in-lieu of groundwater pumping and would not require the modification or construction of new conveyance facilities. The Proposed Action would not induce the construction of any new homes or businesses, or road extensions or other new infrastructure. Similar to the No Action Alternative, the Proposed Action would not increase or decrease the amount of CVP water MID is entitled to under its contract with Reclamation. The Proposed Action would maintain current land uses by providing reliable water to agricultural and M&I users during years with surface water shortages. Therefore, the Proposed Action would not result in increased or decreased water supplies that would induce growth or land use changes. There would be no adverse impacts from the Proposed Action as land use would remain the same as described in the affected environment.

3.3 Biological Resources

3.3.1 Affected Environment

By the mid-1940s, most of the valley's native habitat had been altered by man, and as a result, was severely degraded or destroyed. Approximately 86 percent of the estimated four million acres of native wetlands in the Central Valley was converted to urban and agricultural uses between 1850 and 1985 (USFWS, 1989). When the CVP began operations, over 30 percent of all natural habitats in the Central Valley and surrounding foothills had been converted to urban and agricultural land use (Reclamation, 1999). Prior to widespread agriculture, land within the Proposed Action area provided habitat for a variety of plants and animals. With the advent of irrigated agriculture and urban development over the last 100 years, many species have become threatened and endangered because of habitat loss and other factors. Of the approximately 5.6 million acres of valley grasslands and San Joaquin saltbrush scrub, the primary natural habitats across the valley, less than 10 percent remains today. Much of the remaining habitat consists of isolated fragments supporting small, highly vulnerable populations (Reclamation, 2001). The project area is dominated by agricultural habitat that includes field crops, orchards, and pasture. The vegetation is primarily crops and frequently includes weedy non-native annual and biennial

plants. Semitropic, however, has one of the largest remaining fragments of semi-natural open space left in the San Joaquin Valley.

On June 16, 2011, Reclamation requested an official species list for Kern (Central Valley Portion) and Madera Counties from USFWS via the Sacramento Field Office's website (document number 110616112949):

http://www.fws.gov/sacramento/es/spp_lists/auto_list_form.cfm

Reclamation queried the California Natural Diversity Database for additional data (CNDDDB 2011). This information, in addition to other information within Reclamation's files, was compiled into Table 1.

Table 1: Special Status Species That Could Potentially Occur Within the Affected Area

Species	Status 1	Effects 2	Occurrence in the Study Area 3
Amphibians			
California red-legged frog (<i>Rana draytonii</i>)	FT, X	NE	Absent. No individuals or habitat in Proposed Action area.
California tiger salamander (<i>Ambystoma californiense</i>)	FT, X, ST	NE	Present (MID). No land use change as a result of the Proposed Action.
mountain yellow-legged frog (<i>Rana muscosa</i>)	FC, SC	NE	Absent. No individuals or habitat in Proposed Action area.
Birds			
Swainson's hawk (<i>Buteo swainsoni</i>)	ST	NE	Present (Semitropic). No construction of new facilities; no conversion of lands from existing uses.
Western snowy plover (<i>Charadrius alexandrinus nivosus</i>)	FT	NE	Present (Semitropic). No construction of new facilities; no conversion of lands from existing uses.
western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	FC, SE	NE	Absent. No individuals or habitat in Proposed Action area.
Fish			
Central Valley steelhead (<i>Oncorhynchus mykiss</i>)	FT	NE	Absent. No natural waterways within the species' range will be affected by the proposed action.
Lahontan cutthroat trout (<i>Oncorhynchus clarki henshawi</i>)	FT	NE	Absent. No individuals or habitat in Proposed Action area.
Paiute cutthroat trout (<i>Oncorhynchus clarki seleniris</i>)	FT	NE	Absent. No individuals or habitat in Proposed Action area.
Invertebrates			
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	FE	NE	Possible (MID). No known records, but vernal pool habitat exists. No land use change as a result of the Proposed Action.
Kern primrose sphinx moth (<i>Euproserpinus euterpe</i>)	FT	NE	Absent. No individuals or habitat in Proposed Action area (species has a restricted range).
longhorn fairy shrimp (<i>Branchinecta longiantenna</i>)	FE, X	NE	Possible (MID). No known records, but vernal pool habitat exists. No land use change as a result of the Proposed Action.
valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT	NE	Possible. No individuals documented in the Proposed Action area, but elderberry shrubs may occur there.

Species	Status 1	Effects 2	Occurrence in the Study Area 3
vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT, X	NE	Present (MID). No land use change as a result of the Proposed Action.
vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	FE, X	NE	Possible (MID). No known records, but vernal pool habitat exists. No land use change as a result of the Proposed Action.
Mammals			
Buena Vista Lake shrew (<i>Sorex ornatus relictus</i>)	FE	NE	Present (NKWSD, Semitropic). CNDDB records indicate this species occurs in the project area. No construction of new facilities; no conversion of lands from existing uses.
Fisher (<i>Martes pennanti</i>)	FC, SC	NE	Absent. No individuals or habitat in Proposed Action area.
Fresno kangaroo rat (<i>Dipodomys nitratoideis exilis</i>)	FE, SE	NE	Possible (MID). No land use change as a result of the Proposed Action.
giant kangaroo rat (<i>Dipodomys ingens</i>)	FE, SE	NE	Possible (Semitropic). No known records, but could occur near western edge of district. No land use change as a result of the Proposed Action.
Nelson's antelope squirrel (<i>Ammospermophilus nelsoni</i>)	ST	NE	Present (NKWSD, Semitropic). CNDDB records indicate this species occurs in the project area. No construction of new facilities; no conversion of lands from existing uses.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE, ST	NE	Present (NKWSD, Semitropic), Possible (MID). CNDDB records indicate this species occurs in the project area. No construction of new facilities; no conversion of lands from existing uses.
Sierra Nevada bighorn sheep (<i>Ovis canadensis californiana</i>)	FE, SE	NE	Absent. No individuals or habitat in Proposed Action area
Tipton kangaroo rat (<i>Dipodomys nitratoideis nitratoideis</i>)	FE, SE	NE	Present (NKWSD, Semitropic). CNDDB records indicate this species occurs in the project area. No construction of new facilities; no conversion of lands from existing uses.
Plants			
Bakersfield cactus (<i>Opuntia treleasei</i>)	FE, SE	ME	Present (NKWSD). No land use change as a result of the Proposed Action.
California jewelflower (<i>Caulanthus californicus</i>)	FE, SE	NE	Present (Semitropic). No land use change as a result of the Proposed Action.
Greene's tuctoria (<i>Tuctoria greenei</i>)	FE, X, SR	NE	Present (MID). No land use change as a result of the Proposed Action.
hairy Orcutt grass (<i>Orcuttia pilosa</i>)	FE, X, SE	NE	Present (MID). No land use change as a result of the Proposed Action.
Hartweg's golden sunburst (<i>Pseudobahia bahiifolia</i>)	FE, SE	NE	Absent. No individuals or habitat in Proposed Action area.
Keck's checkermallow (<i>Sidalcea keckii</i>)	FE, X	NE	Absent. No individuals or habitat in Proposed Action area.
Kern mallow (<i>Eremalche kernensis</i>)	FE	NE	Present (Semitropic). No land use change as a result of the Proposed Action.
Mariposa pussy-paws (<i>Calyptridium pulchellum</i>)	FT	NE	Absent. No individuals or habitat in Proposed Action area.
palmate-bracted bird's-beak (<i>Cordylanthus palmatus</i>)	FE, SE	NE	Absent. No individuals or habitat in Proposed Action area.
San Joaquin adobe sunburst (<i>Pseudobahia peirsonii</i>)	FT, SE	NE	Absent. No individuals or habitat in Proposed Action area.
San Joaquin Valley Orcutt grass (<i>Orcuttia inaequalis</i>)	FT, X, SE	NE	Present (MID). No land use change as a result of the Proposed Action.

Species	Status 1	Effects 2	Occurrence in the Study Area 3
San Joaquin woollythreads (<i>Monolopia congdonii</i>)	FE	NE	Possible (NKWSD), Present (Semitropic). No land use change as a result of the Proposed Action.
Succulent owl's-clover (<i>Castilleja campestris</i> ssp. <i>succulenta</i>)	FT, X, SE	NE	Possible (MID). No known records, but vernal pool habitat is present. No land use change as a result of the Proposed Action.
Reptiles			
blunt-nosed leopard lizard (<i>Gambelia sila</i>)	FE, SE	NE	Present (MID, NKWSD, Semitropic). No land use change as a result of the Proposed Action.
giant garter snake (<i>Thamnophis gigas</i>)	FT, ST	NE	Absent. No individuals or habitat in Proposed Action area.

Potentially Affected Listed Species

As shown in Table 1, State and Federally listed species and MTBA occur in the affected environment, primarily in remaining fragments of natural land. A few species, such as the Swainson's hawk and San Joaquin kit fox, also use agricultural lands to some extent. There is also critical habitat present for the California tiger salamander, Greene's tuctoria, hairy Orcutt grass, San Joaquin Orcutt grass, succulent owl's-clover, and vernal pool fairy shrimp in MID and proposed critical habitat for the Buena Vista Lake shrew in NKWSD and Semitropic.

3.3.2 Environmental Consequences

3.3.2.1 No Action

Under the No Action Alternative no new facilities would be constructed and existing deliveries would continue as has historically occurred. Other impacts not related to the Proposed Action may occur to listed species, such as effects of urban development and routine agricultural activities. Semitropic would continue to construct portions of their water bank that have been permitted under section 10 of the ESA.

3.3.2.2 Proposed Action

Under the Proposed Action alternative, Reclamation would approve the transfer of MID CVP water supplies (available above current needs) in existing facilities to NKWSD and Semitropic for banking or use by their customers in-lieu of groundwater pumping. Water demands and conditions in the project area would not change and no new facilities would be constructed. Therefore, there would be no effects on listed species or designated or proposed critical habitat. The proposed water conveyance would not involve the conversion of any land and would therefore not change the land use patterns of the cultivated or fallowed fields that have value to listed species or birds protected by the MBTA. Since no natural stream courses alteration would occur, there would be no effects on fish species.

3.4 Cultural Resources

Cultural resources is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation that outlines the Federal Government's responsibility to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking on cultural resources listed on or eligible for inclusion in the National Register of Historic Places (NRHP). Those resources that are on or eligible for inclusion in the NRHP are referred to as historic properties. The Section 106 process is outlined in the Federal regulations at

36 Code of Federal Regulations (CFR) Part 800. These regulations describe the process that the Federal agency (Reclamation) takes to identify cultural resources and the level of effect that the proposed undertaking will have on historic properties. In summary, Reclamation must first determine if the action is the type of action that has the potential to affect historic properties. If the action is the type of action to affect historic properties, Reclamation must identify the area of potential effects (APE), determine if historic properties are present within that APE, determine the effect that the undertaking will have on historic properties, and consult with the State Historic Preservation Office (SHPO), to seek concurrence on Reclamation's findings. In addition, Reclamation is required through the Section 106 process to consult with Indian Tribes concerning the identification of sites of religious or cultural significance, and consult with individuals or groups who are entitled to be consulting parties or have requested to be consulting parties.

3.4.1 Affected Environment

The San Joaquin Valley is rich in historical and prehistoric cultural resources. Cultural resources in this area are generally prehistoric in nature and include remnants of native human populations that existed before European settlement. Prior to the 18th Century, many Native American tribes inhabited the San Joaquin Valley. It is possible that many cultural resources lie undiscovered across the valley. The San Joaquin Valley supported extensive populations of Native Americans, principally the Northern Valley Yokuts, in the prehistoric period. Cultural studies in the San Joaquin Valley have been limited. The conversion of land and intensive farming practices over the last century may have destroyed many Native American cultural sites.

Resources within the scope of this project include historic features of the built environment, primarily those of the CVP. Components of the CVP have been determined eligible for inclusion in the National Register and have been prepared for inclusion in the National Register through a multiple property nomination. The CVP multiple property nomination is currently being reviewed for submission to the Keeper of the National Register for inclusion in the National Register.

Both Friant Dam and the FKC are considered contributing elements of the CVP multiple property listing and are considered eligible for inclusion in the National Register.

3.4.2 Environmental Consequences

3.4.2.1 No Action

Under the No Action Alternative, there would be no impacts to cultural resources since there would be no modifications to existing conveyance systems and no new construction that would result in any ground disturbance. Conditions related to cultural resources would remain the same as existing conditions.

3.4.2.2 Proposed Action

Similar to the No Action Alternative, there would be no new ground disturbance and the Proposed Action would be accomplished using existing facilities. No new lands would be put into agricultural production as a result of transfer. The Proposed Action involves the type of activity that has no potential to affect historic properties.

3.5 Indian Trust Assets

Indian trust assets (ITA) are legal interests in assets that are held in trust by the United States Government for federally recognized Indian tribes or individuals. The trust relationship usually stems from a treaty, executive order, or act of Congress. The Secretary of the interior is the trustee for the United States on behalf of federally recognized Indian tribes. “Assets” are anything owned that holds monetary value. “Legal interests” means there is a property interest for which there is a legal remedy, such a compensation or injunction, if there is improper interference. Assets can be real property, physical assets, or intangible property rights, such as a lease, or right to use something. ITA cannot be sold, leased or otherwise alienated without United States’ approval. Trust assets may include lands, minerals, and natural resources, as well as hunting, fishing, and water rights. Indian reservations, rancherias, and public domain allotments are examples of lands that are often considered trust assets. In some cases, ITA may be located off trust land.

Reclamation shares the Indian trust responsibility with all other agencies of the Executive Branch to protect and maintain ITA reserved by or granted to Indian tribes, or Indian individuals by treaty, statute, or Executive Order.

3.5.1 Affected Environment

The nearest ITA is Table Mountain Rancheria, which is located within the Proposed Action area.

3.5.2 Environmental Consequences

3.5.2.1 No Action

Under the No Action Alternative, conditions would remain the same as existing conditions; therefore, there would be no impacts to ITA.

3.5.2.2 Proposed Action

The Proposed Action would not involve any construction on lands or impact water, hunting, and fishing rights associated with the nearest ITA listed in the affected environment. Therefore, the Proposed Action does not have a potential to impact ITA.

3.6 Environmental Justice

The February 11, 1994, Executive Order 12898 requires federal agencies to ensure that their actions do not disproportionately impact minority and disadvantaged populations.

3.6.1 Affected Environment

The market for seasonal workers on local farms draws thousands of migrant workers, commonly of Hispanic origin from Mexico and Central America, into the San Joaquin Valley. Agriculture and related businesses are the main industry in MID, NKWSD and Semitropic, providing employment opportunities for these minority and/or disadvantaged populations. The areas around the districts have stable agricultural economies.

3.6.2 Environmental Consequences

3.6.2.1 No Action

The No Action Alternative would result in conditions remaining the same as existing conditions in MID, NKWSD and Semitropic. The No Action Alternative would not result in any adverse effects unique to minority or low-income populations in the affected area.

3.6.2.2 Proposed Action

Under the Proposed Action, the ability to manage transferred water would help maintain agricultural production and local employment. The Proposed Action would not affect low-income or disadvantaged populations within the districts by causing dislocation, changes in employment, or increase flood, drought, or disease. Employment opportunities for low-income wage earners and minority population groups would be within historical conditions.

The Proposed Action does not propose any features that would result in adverse human health or environmental effects, have any physical effects on minority or low-income populations, and/or alter socioeconomic conditions of populations that reside or work in the vicinity of the Proposed Action.

3.7 Socioeconomic Resources

3.7.1 Affected Environment

The Proposed Action area is primarily rural agricultural land which provides farm-related jobs. The agricultural industry significantly contributes to the overall economic stability of the San Joaquin Valley. There are small businesses that support agriculture, for example: feed and fertilizer sales, machinery sales and service, pesticide applicators, transport, packaging, marketing, etc. within the surrounding area.

3.7.2 Environmental Consequences

3.7.2.1 No Action

The No Action Alternative would have no impact on socioeconomic resources. Farmers and M&I users would continue to rely on groundwater during surface water shortages, with acreages under cultivation within historical ranges. NKWSD and Semitropic could continue to engage in water banking opportunities and/or exchanges that do not involve Federal facilities and/or CVP water. The socioeconomic conditions in the districts would be within historical ranges.

3.7.2.2 Proposed Action

The Proposed Action would provide water supply reliability to existing agricultural users that would help to sustain existing uses. Businesses and farm workers rely on these crops to maintain jobs. Conditions would remain the same as existing conditions and there would be no adverse impacts to socioeconomic resources.

3.8 Air Quality

Section 176 (C) of the Clean Air Act [CAA] (42 USC 7506 (C)) requires any entity of the federal government that engages in, supports, or in any way provides financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable State

Implementation Plan (SIP) required under Section 110 (a) of the Federal Clean Air Act (42 USC 7401 (a)) before the action is otherwise approved. In this context, conformity means that such federal actions must be consistent with SIP's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of those standards. Each federal agency must determine that any action that is proposed by the agency and that is subject to the regulations implementing the conformity requirements would, in fact conform to the applicable SIP before the action is taken.

On November 30, 1993, the Environmental Protection Agency (EPA) promulgated final general conformity regulations at 40 CFR 93 Subpart B for all federal activities except those covered under transportation conformity. The general conformity regulations apply to a proposed federal action in a non-attainment or maintenance area if the total of direct and indirect emissions of the relevant criteria pollutants and precursor pollutant caused by the Proposed Action equal or exceed certain *de minimis* amounts thus requiring the federal agency to make a determination of general conformity.

3.8.1 Affected Environment

The project area is located within the San Joaquin Valley Air Basin (SJVAB) which is the second largest air basin in California. Despite years of improvements, the SJVAB does not meet State and Federal health-based air quality standards. The governing body over the SJVAB, the San Joaquin Valley Air Pollution Control District (SJVAPCD), has adopted stringent control measures to reduce emissions and improve overall air quality within the SJVAB. The following *de minimis* amounts for the region covering the project area within the SJVAB are presented in Table 2.

Table 2: San Joaquin Valley Air Basin General Conformity *de minimis* Thresholds

Pollutant	Federal Status	<i>de minimis</i> (Tons/year)	<i>de minimis</i> (Pounds/day)
VOC/ROG (as an ozone precursor)	Nonattainment serious 8-hour ozone	50	274
NOx (as an ozone precursor)	Attainment Maintenance for NO2	50	274
PM10	Attainment Maintenance	100	548
CO	Attainment Unclassified	100	548

Sources SJVAPCD 2009; 40 CFR 93.153

3.8.2 Environmental Consequences

3.8.2.1 No Action

Under the No Action Alternative, MID, NKWSD and Semitropic would continue to engage in transfer and banking opportunities to reduce the impacts of surface water shortages by using the facilities available to them either in district or using other districts' facilities as approved by Reclamation and DWR. Conditions would be the same as the existing conditions; therefore, no additional impacts are associated with this alternative.

3.8.2.2 Proposed Action

Under the Proposed Action, transferred water would be conveyed into storage or directly delivered to customers in-lieu of groundwater pumping through gravity flow. The air quality

emissions from electrical power have been considered in environmental documentation for the generating power plants that supply the system. There are no direct emissions from electrical motors and therefore a conformity analysis is not required under the CAA and there would be no impact on air quality. The Proposed Action would not involve any construction or land disturbing activities that could lead to fugitive dust emissions and/or exhaust emissions associated with the operations of heavy machinery.

3.9 Global Climate Change

3.9.1 Affected Environment

Climate change refers to significant change in measures of climate that last for decades or longer. Burning of fossil fuels is considered a major contributor to perceived global climate change. Carbon dioxide, which is produced when fossil fuels are burned, is a greenhouse gas (GHG) that effectively traps heat in the lower atmosphere. Some carbon dioxide is liberated naturally, but this may be augmented greatly through human activities. Increases in air temperature may lead to changes in precipitation patterns, runoff timing and volume, sea level rise, and changes in the amount of irrigation water needed due to modified evapotranspiration rates. These changes may lead to impacts to California's water resources and project operations. While there is general consensus in their trend, the magnitudes and onset-timing of impacts are uncertain and are scenario-dependent (Anderson et al. 2008).

3.9.2 Environmental Consequences

3.9.2.1 No Action

Under the No Action Alternative, individually approved transfers and/or exchanges would be conveyed via gravity and would not result in adverse impacts to global climate. During periods of surface water shortage farmers would continue to use groundwater by pumping wells with diesel and electric motors.

3.9.2.2 Proposed Action

GHG generated by the Proposed Action is expected to be extremely small, if any, compared to sources contributing to potential climate change. In general, water would be conveyed via gravity. The amount of pumpage would be comparable to that which would occur under the No Action Alternative during years with surface water shortages. While any increase in GHG emissions would add to the global inventory of gases that would contribute to global climate change, the Proposed Action would result in potentially minimal to no increases in GHG emissions and a net increase in GHG emissions among the pool of GHG would not be detectable.

3.10 Cumulative Impacts

Existing or foreseeable projects that could affect or could be affected by the Proposed Action:

- **EIS 06-127 MID Water Supply Enhancement Project:** Reclamation has released a final EIS for a project to recharge and recover up to 55,000 AF per year of Friant, Hidden Unit and Pre-1914 water in a 250,000 AF water bank that will be owned and operated by MID.
- **FONSI/EA-10-052 Accelerated Water Transfer Program (AWTP) for Friant Division and Cross Valley Central Valley Project Contractors, 2011-2015:** Reclamation approved

continuation of a five-year AWTP, that provides a streamlined process for annual transfers and/or exchanges of Friant Division CVP water between eligible Friant Division and CVC Contractors within the same geographical area who can receive CVP service from Friant Division facilities and who possess CVP interim or long-term water service contracts, or repayment contracts.

- **FONSI/EA-09-92 Delano-Earlimart Irrigation District (DEID) and Rosedale-Rio Bravo Water Storage District (RRBWSD) Banking Program 2010-2026:** Reclamation has approved DEID's delivery of its CVP and 215 Water (when available) supplies for banking outside of their service area boundary in RRBWSD. DEID will deliver up to 80,000 AF per year to RRBWSD for banking from March 2010 through February 2026. DEID will be allowed to store up to 100,000 AF maximum at any one time, and RRBWSD will return up to 10,000 AF per year to DEID upon request.
- **SEA-09-74 Amendment to the Storage and Exchange of Central Valley Project Water Delano-Earlimart Irrigation District to North Kern Water Storage District:** The extension of water banking through 2026 and the addition of uncontrolled spill from Millerton Reservoir (Section 215 water) to the Class I and Class 2 CVP water to be banked.
- **EA-09-157 Storage and return of Westlands Water District's Central Valley Project Water in Semitropic Water Storage District:** The banking of 50,000 AF of Westlands Water District's 2009-2010 CVP allocation in Semitropic by March 1, 2010 and the annual recovery of up to 20,000 AF as needed within 10 years of the initial banking deposit.
- **FONSI-09-164 City of Tracy Long-term Central Valley Project Water Groundwater Banking with Semitropic Water Storage District:** The long-term groundwater banking program will include the banking of up to 10,500 AF per year of Tracy's available CVP surface water supplies within Semitropic.

The Proposed Action and other similar projects would not interfere with the projects listed above, nor would it hinder the normal operations of the CVP and Reclamation's obligation to deliver water to its contractors or to local fish and wildlife habitat. The FWA manages the FKC, on Reclamation's behalf, such that capacity must exist before any movement of water is scheduled under the Proposed Action.

The Proposed Action would improve water supply reliability and operational efficiency. Delivery of transferred water involved with the Proposed Action would occur when excess capacity exists. The capacities of the conveyance facilities would not change, and therefore water service or delivery obligations for these conveyances would continue as they have in the past.

Groundwater levels in the area would also rise slightly since the internal customers would be taking delivery of surface water in-lieu of pumping groundwater. In addition, groundwater levels could experience beneficial cumulative impacts over the course of this project because users of the transferred water would need to rely less on groundwater pumping during years with surface water shortages. Application of better quality CVP water from the FKC over the course of the project (including other similar existing and/or foreseeable projects) for recharge would result in a beneficial cumulative impact to groundwater quality in the Kern County Groundwater Sub-

basin. The Proposed Action, when added to other similar existing and proposed actions, may result in beneficial cumulative impacts to overall groundwater resources in the project area on a small scale.

No native or previously untitled lands would be put into production. The Proposed Action would maintain existing land uses and would not contribute to cumulative changes or impacts to land uses or planning. Land use trends around the action area in recent years have resulted in urbanization of agricultural lands. This trend is typically caused by economic pressures and is likely to continue with or without these water service actions. Therefore, there would be no cumulative effects to land use as a result of the Proposed Action.

The proposed project would not have adverse impacts that are less than significant cumulative adverse impacts.

4 Consultation and Coordination

4.1 Public Review Period

Reclamation provided the public with an opportunity to comment on the Draft EA/FONSI August 22, 2011 through September 9, 2011.

4.2 Federal Agencies

NEPA requires that Reclamation consult with Federal agencies that have responsibility over resources involved or any other interest. Specifically, ESA Section 7(a)(2) requires Federal agencies to consult with the USFWS and/or the National Marine Fisheries Service on any activities that may affect any Federally listed species and Section 7(a)(4) requires consultation on any activities that may jeopardize the continued existence of any proposed species of plant or animal. If potential effects to listed or proposed species or their designated critical habitat are identified, these effects require the initiation of the Section 7 process.

Fish and Wildlife Coordination Act (16 USC § 661 et seq.)

The Fish and Wildlife Coordination Act (FWCA) requires that Reclamation consult with fish and wildlife agencies (federal and state) on all water development projects that could affect biological resources. The Proposed Action does not involve federal water development projects. Therefore the FWCA does not apply.

Endangered Species Act (16 USC § 1531 et seq.)

Section 7 of the Endangered Species Act requires Federal agencies, in consultation with the Secretary of the Interior and/or Commerce, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of these species.

Water demands and conditions in the project area would not change and no new facilities would be constructed. Therefore, there would be no effects on listed species or designated or proposed critical habitat. The proposed water conveyance would not involve the conversion of any land and would therefore not change the land use patterns of the cultivated or fallowed fields that do have value to listed species or birds protected by the MBTA. Since no natural stream courses alteration would occur, there would be no effects on fish species.

National Historic Preservation Act (16 USC § 470 et seq.)

The NHPA of 1966, as amended (16 USC 470 et seq.), requires that federal agencies give the Advisory Council on Historic Preservation an opportunity to comment on the effects of an undertaking on historic properties, properties that are eligible for inclusion in the National Register. The 36 CFR Part 800 regulations implement Section 106 of the NHPA.

Section 106 of the NHPA requires federal agencies to consider the effects of federal undertakings on historic properties, properties determined eligible for inclusion in the National Register. Compliance with Section 106 follows a series of steps that are designed to identify

interested parties, determine the APE, conduct cultural resource inventories, determine if historic properties are present within the APE, and assess effects on any identified historic properties.

There would be no new ground disturbance and the Proposed Action would be accomplished using existing facilities. No new lands would be put into agricultural production as a result of transfer. The Proposed Action involves the type of activity that has no potential to affect historic properties.

Executive Order 13007 – Indian Sacred Sites

Executive Order 13007 requires Federal land managing agencies to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites. It also requires agencies to develop procedures for reasonable notification of proposed actions or land management policies that may restrict access to or ceremonial use of, or adversely affect, sacred sites. The Proposed Action involves the type of activity that has no potential to affect Indian Sacred Sites.

Migratory Bird Treaty Act (16 USC § 703 et seq.)

The MBTA implements various treaties and conventions between the United States and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns.

The proposed water conveyance would not involve the conversion of any land and would therefore not change the land use patterns of the cultivated or fallowed fields that do have value to listed species or birds protected by the MBTA.

Executive Order 11988 – Floodplain Management and Executive Order 11990 – Protection of Wetlands

Executive Order 11988 requires Federal agencies to prepare floodplain assessments for actions located within or affecting flood plains, and similarly, Executive Order 11990 places similar requirements for actions in wetlands. The Proposed Action would not affect either concern.

Clean Air Act (42 USC § 7506 (C))

Section 176 of the CAA requires that any entity of the Federal government that engages in, supports, or in any way provided financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable SIP required under Section 110 (a) of the CAA (42 USC § 7401 (a)) before the action is otherwise approved. In this context, conformity means that such federal actions must be consistent with a SIP's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of those standards. Each federal agency must determine that any action

that is proposed by the agency and that is subject to the regulations implementing the conformity requirements will, in fact conform to the applicable SIP before the action is taken. The Proposed Action involves the storage and conveyance of non-CVP water through existing federal facilities. Movement of water would be done via gravity or electrical pumps. There are no local emissions associated with the movement of this water; therefore a conformity analysis is not required and there are no adverse impacts to air quality associated with the Proposed Action.

Clean Water Act (16 USC § 703 et seq.)

Section 401

Section 401 of the Clean Water Act (CWA) (33 USC § 1311) prohibits the discharge of any pollutants into navigable waters, except as allowed by permit issued under sections 402 and 404 of the CWA (33 USC § 1342 and 1344). If new structures (e.g., treatment plants) are proposed, that would discharge effluent into navigable waters, relevant permits under the CWA would be required for the project applicant(s). Section 401 requires any applicant for an individual U. S. Army Corps of Engineers dredge and fill discharge permit to first obtain certification from the state that the activity associated with dredging or filling will comply with applicable state effluent and water quality standards. This certification must be approved or waived prior to the issuance of a permit for dredging and filling.

No pollutants would be discharged into any navigable waters under the Proposed Action so no permits under Section 401 of the CWA are required.

Section 404

Section 404 of the CWA authorizes the U. S. Army Corps of Engineers to issue permits to regulate the discharge of “dredged or fill materials into waters of the United States” (33 USC § 1344). No activities such as dredging or filling of wetlands or surface waters would be required for implementation of the Proposed Action, therefore permits obtained in compliance with CWA section 404 are not required.

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5 List of Preparers and Reviewers

Reclamation Preparers and Reviewers

- Rena Ballew, Contract Specialist-SCCAO
- Shauna McDonald, Wildlife Biologist
- Tony Overly, Archaeologist, MP-153
- Patricia Rivera, ITA, MP-400
- Chuck Siek, Supervising Natural Resource Specialist-SCCAO

Western Development and Storage Preparers

- Dave Dorrance, Project Manager
- Lance Johnson, P.E. General Manager-MID

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Appendix A-Environmental Commitment Program

EA/FONSI: [11-042]

On January 14, 2011 the President's Council on Environmental Quality (CEQ) issued guidance for Federal agencies on establishing, implementing and monitoring environmental commitments identified in Environmental Assessments (EA) and Environmental Impact Statements (EIS) completed for compliance with the National Environmental Policy Act (NEPA). This guidance also pertains to Categorical Exclusions when environmental commitments have been identified in order to meet the requirements for exclusion.

The CEQ guidance states that environmental commitments should be carefully specified in terms of measurable performance standards to establish clear performance expectations. Adequate funding to meet environmental commitments and monitoring to assess the efficacy of these commitments are an important component of the CEQ guidance.

The Bureau of Reclamation, South-Central California Area Office, has established the Environmental Commitment Program (ECP) to meet the CEQ guidance. The program provides a tracking mechanism for the environmental commitments identified in the NEPA document. These commitments fall under one or more of the following categories:

1. Commitments where no construction or ground disturbance is involved

These commitments are typically associated with water transfers, exchanges, Warren Act contracts and similar actions.

Required ☐ Not Required ☒

2. Commitments where construction or ground disturbance is involved

These commitments are typically associated with short-term construction impacts resulting from modifications to Federal facilities or modifications to non-Federal facilities where there is a Federal nexus such as Federal funds or approvals.

Required ☐ Not Required ☒

3. Long-term Commitments

These commitments are typically associated with larger construction or ground disturbing activities where impacts to wetlands, special status species habitat or water quality require long-term mitigation and monitoring required by regulatory agency approvals or permits.

Required ☐ Not Required ☒

Note: If the "Not Required" boxes are checked on all three commitment categories, no further action is required. Please attach this page to the document (contract, permit, approval or agreement) issued to the proponent of the action.

If however one or more of the "Required" boxes are checked, the authorizing official for the proponent of the action must complete attached pages and comply with any environmental commitments described. Please attach all completed pages to the document (contract, permit, approval or agreement) issued to the proponent of the action.

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Appendix B-Cultural Resource Determination

From: Overly, Stephen A
Sent: Monday, June 13, 2011 4:32 PM
To: Siek, Charles R
Cc: Barnes, Amy J; Bruce, Brandee E; Goodsell, Joanne E; Nickels, Adam M; Perry, Laureen (Laurie) M; Soule, William E; Williams, Scott A
Subject: Section 106 Review complete for 20,00 AF MID Transfer to NKWSD and/or Semitropic

11-SCAO-186

Reclamation proposes to approve a water transfer of up to 20,000 AF of Madera Irrigation District's (MID) Friant Class 2 supplies from MID to North Kern Water Storage District and/or Semitropic Water Storage District. The actions described in the project description, as described in the e-mail below and in the draft EA attached to that e-mail, has no potential to cause effects to historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1).

I reviewed the draft EA (11-041) attached to the e-mail below. The cultural resources language in that submittal is fine and needs no changes with regard to the cultural resource sections. If the project description changes, there may be additional requirements associated with Section 106. The email concludes the Section 106 review process for this undertaking. Thank you for the opportunity to comment.

Sincerely,

Stephen (Tony) Overly, M.A. Archaeologist
U.S. Bureau of Reclamation, Mid-Pacific Region
2800 Cottage Way, MP-153
Sacramento, CA 95825
916-978-5552

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Appendix C-Indian Trust Asset Determination

From: Rivera, Patricia L
Sent: Tuesday, June 14, 2011 11:18 AM
To: Siek, Charles R
Subject: RE: Request for determinations

Charles,

I reviewed the proposed action to complete CR, ITA and ESA determinations for a water transfer. The transfer could occur up to February 28, 2012 and would consist of up to 20,000 AF of Madera Irrigation District's Friant Class 2 supplies to North Kern Water Storage District and/or Semitropic Water Storage District for existing agricultural or municipal and industrial purposes. All of the operations under this proposed project would entail use of existing infrastructure and would be performed in compliance with terms of the Friant Biological Opinion.

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

Patricia

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Appendix D-Endangered Species Act Determination



IN REPLY REFER TO:

Friant Division
ENV 7.00
SCC-424

United States Department of the Interior

BUREAU OF RECLAMATION
1243 "N" Street
Fresno, CA 93721



July 27, 2011

MEMORANDUM

To: Chuck Siek
Supervisory Natural Resource Specialist

From: Shauna McDonald
Wildlife Biologist

Subject: No-Effect Determination for Madera Irrigation District One-Year Transfer to North Kern Water Storage District and/or Semitropic Water Storage District (EA-11-042)

Under the Proposed Action, Reclamation would approve Madera Irrigation District's (MID's) transfer of up to 20,000 acre-feet of its Friant Water Class 2 water with delivery to occur before February 28, 2012 to North Kern Water Storage District (NKWSD) and/or Semitropic Water Storage District (Semitropic). This transfer would be contingent on: 1) availability of wheeling capacity in the Friant Kern Canal, 2) wheeling capacity in locally owned conveyances used by NKWSD and Semitropic, or 3) available recharge capacity at NKWSD or Semitropic. NKWSD and/or Semitropic would only accept the transfer water if the action can be performed within the limits of the existing environmental documentation/permits for NKWSD and Semitropic and only if NKWSD and Semitropic have existing demands.

The Proposed Action is subject to the following conditions:

- The water: 1) would only be used for beneficial purposes and in accordance with Federal Reclamation law and guidelines; 2) transferred will comply with all federal, state, local, and tribal law, and requirements imposed for protection of the environment and Indian Trust Assets; and 3) would be used within the Friant permitted place of use and NKWSD and/or Semitropic service areas;
- The water would not be used to place untilled or new lands into agricultural production, or to convert undeveloped land to other uses;
- The Proposed Action would not interfere with the normal CVP operations; and

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- The Proposed Action would not require the construction of any new water conveyance, pumping, diversion, recharge, storage or recovery facilities.

Under the Proposed Action alternative, Reclamation would approve the transfer of MID CVP water supplies (available above current needs) in existing facilities to NKWSD and Semitropic for banking or use by their customers in-lieu of groundwater pumping. Water demands and conditions in the project area would not change and no new facilities would be constructed. Therefore, there would be no effects on listed species or designated or proposed critical habitat. The proposed water conveyance would not involve the conversion of any land and would therefore not change the land use patterns of the cultivated or fallowed fields that do have value to listed species or birds protected by the Migratory Bird Treaty Act. Since no natural stream courses would be altered, there would be no effects on Federally listed fish.

With the above limitations and based upon the nature of this action 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.).