RECLAMATION

Managing Water in the West

Draft Environmental Assessment

Madera Irrigation District Transfer of Friant Central Valley Project Water to Semitropic Water Storage District as Facilitated by North Kern Water Storage District

EA-06-130

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

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List of Figures and Tables

List of Acronyms, Abbreviations and Definition of Terms

AF – acre-foot (feet)
CNDDB – California Natural Diversity Database
CVP – Central Valley Project
DWR – Department of Water Resources
EA – Environmental Assessment
EIR- Environmental Impact Report
ESA – Endangered Species Act
FKC – Friant-Kern Canal
FWCA – Fish and Wildlife Coordination Act
FWS – U .S. Fish and Wildlife Service
FONSI – Finding of No Significant Impact
ITAs – Indian Trust Assets
MID – Madera Irrigation District
MOU – Memorandum of Understanding
MSL – mean sea level
NKWSD – North Kern Water Storage District
NEPA – National Environmental Policy Act
NHPA – National Historic Preservation Act
NRHP – National Register of Historic Places
OCAP – Operating Criteria and Plan
Project- Central Valley Project
Reclamation – U.S. Bureau of Reclamation
Semitropic- Semitropic Water Storage District
SWRU – Stored Water Recovery Unit

SECTION 1 PURPOSE OF AND NEED FOR ACTION

1.1 PURPOSE AND NEED

The Bureau of Reclamation (Reclamation) proposes to approve a transfer of Central Valley Project (CVP) water from Madera Irrigation District (MID) to Semitropic Water Storage District (Semitropic). The purpose of the transfer is to optimize management of available water supplies by transferring water excess to MID's 2006 irrigation demand for delivery and future dry year use in Semitropic. Semitropic needs water to supplement their groundwater supplies which will help reduce groundwater impacts in critical/dry year shortages. Reclamation has a need to approve proposed water transfers based on contractual requirements and in compliance with State and Federal law. This action maximizes the beneficial use of Friant Division CVP supplies, improves the long-term water supply reliability for Semitropic, and reduces Semitropic's dependence on groundwater resources during water supply shortages.

1.2 SCOPE

In accordance with Section 102 (2) (c) of the National Environmental Policy Act of 1969 (NEPA), as amended, Reclamation has prepared this Environmental Assessment (EA) which analyzes the transfer of up to 15,000 acre-feet (AF) of MID 2006-07 allocated Friant CVP water supply for delivery within Semitropic as facilitated by spreading within existing North Kern Water Storage District (NKWSD) spreading facilities, or via the Poso Creek channel to Semitropic for direct delivery and recharge.

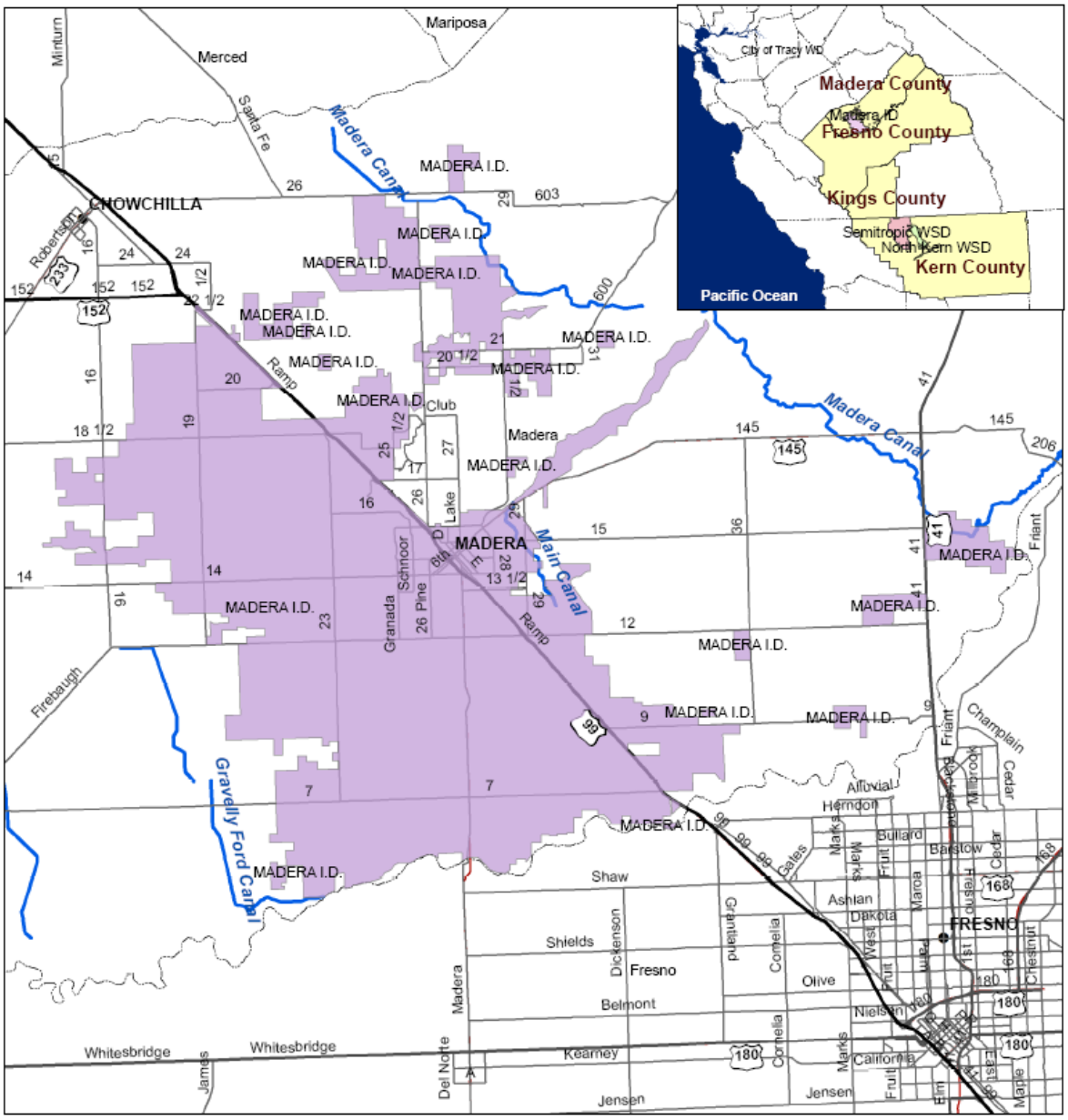
1.3 PREVIOUS ENVIRONMENTAL DOCUMENTS

In March 2006, a conditional one-year Environmental Assessment (EA) titled, 2*006 Transfers and Exchanges with Non-CVP contractors*, was completed. This EA established and analyzed the effects of seventeen Non-CVP Contractors receiving CVP water from the Friant Division via exchanges or transfers. NKWSD and Semitropic were both identified as Non-CVP contractors eligible to receive CVP water via a transfer. The Non-CVP EA established the affected environment and analyzed the effects of Non-CVP contractors receiving CVP water and is hereby incorporated by reference.

1.4 POTENTIAL ISSUES

The potentially affected resources in the project vicinity include:

- Surface Water Resources
- Groundwater Resources
- Biological Resources
- Land Use
- Cultural Resources
- Indian Trusts Assets
- Socioeconomic Resources
- Environmental Justice



Legend

- City locations CA NV
- Canals
- Highways
- Madera I.D. (Incorporated Boundary)

Figure 1
Madera Irrigation District
General Location Map

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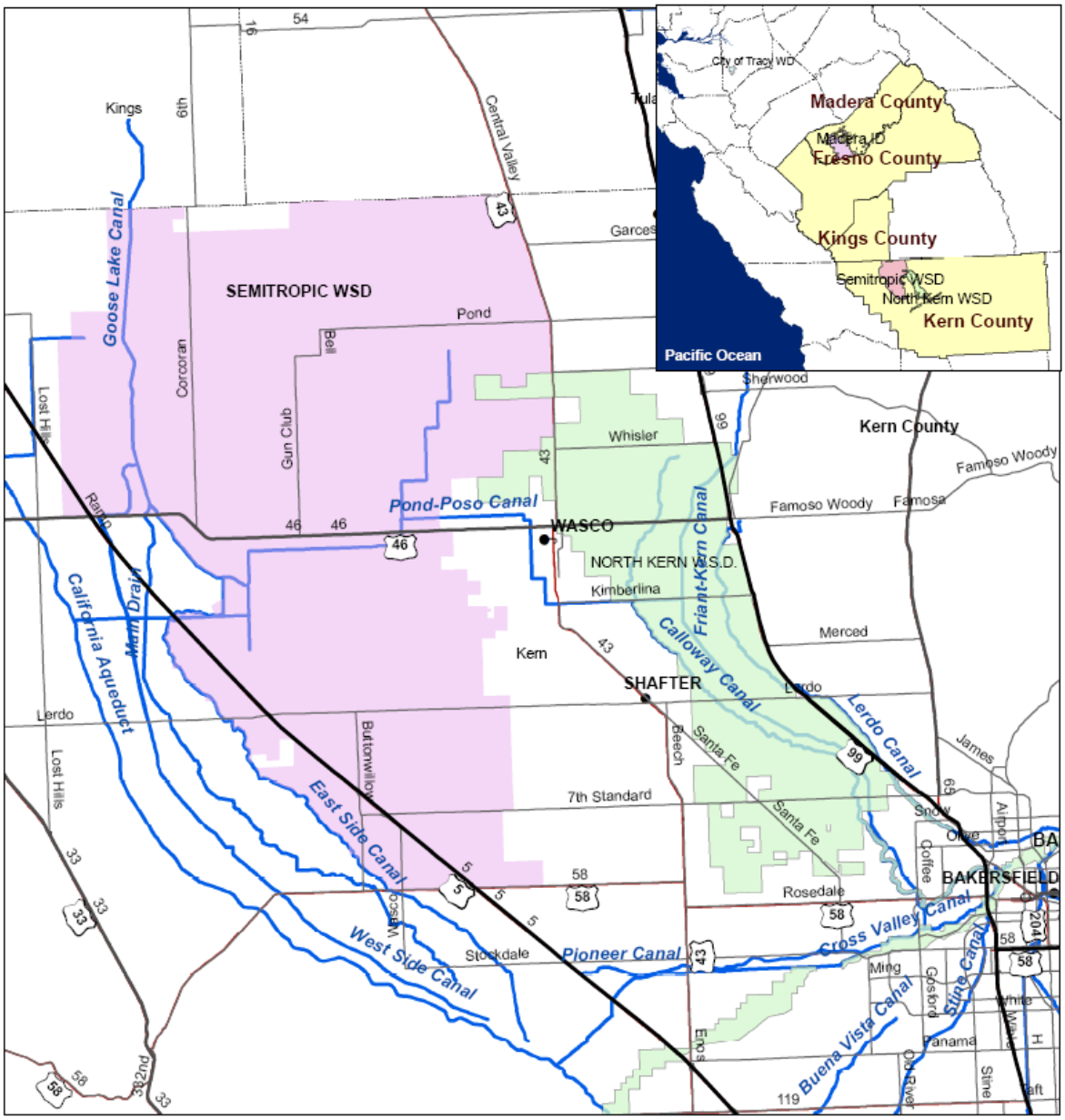

Figure 2
Semitropic Water Storage District &
North Kern Water Storage District
General Location Map

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SECTION 2 ALTERNATIVES INCLUDING PROPOSED ACTION

2.1 ALTERNATIVE A: NO ACTION

Under the No Action Alternative, Reclamation does not approve the transfer of Friant CVP water. Thus, the Friant CVP water would be delivered to MID to meet existing crop demands, or rescheduled into the 2007 Water Year within Millerton Lake Reservoir. The water would remain for the benefit of MID, and not be transferred for the benefit of Semitropic. Semitropic would continue to find ways of increasing supply reliability to help reduce the impacts of critical dry year shortages.

2.2 ALTERNATIVE B: PROPOSED ACTION

2.2.1 Transfer of Friant CVP Water

Reclamation proposes to approve a transfer of up to 15,000 AF of CVP water from MID (Figure 1) delivered in 2006 to Semitropic facilitated by NKWSD (Figure 2). The water will be delivered to Semitropic using: 1) existing NKWSD spreading facilities for recharge; or (2) the Poso Creek channel for direct delivery and recharge into Semitropic.

The MID water would be released from Millerton Lake Reservoir and conveyed through the Friant-Kern Canal (FKC), and delivered through turnouts located at mileposts 130.0 and 144.9 (Figure 3) from the FKC for (1) spreading within existing NKWSD spreading facilities; or (2) delivered via the Poso Creek channel to Semitropic for direct delivery and recharge. Semitropic will use this water to replenish the underlying aquifer.

The project area is defined as the area encompassed by MID, NKWSD, and Semitropic, as well as state, federal and district facilities that would be used in order to implement the Proposed Action.

The Proposed Action is subject to the following conditions:

a. The water would only be used for beneficial purposes and in accordance with Federal Reclamation law and guidelines.
b. The water would not be used to place untilled or new lands into production, nor to convert undeveloped land to other uses.
c. The Proposed Action would not affect CVP or State Water Project (SWP) operations.
d. The movement of the water would not require the construction of any new water diversion or conveyance facilities.

2.2.2 Required Conveyance Systems

Conveyance of MID CVP water to Semitropic as facilitated by NKWSD is described below and depicted in Figure 3.

2.2.2.1 Delivery of CVP Water to Semitropic

Up to 15,000 AF of MID CVP water would be released from Millerton Lake Reservoir from the period between November 2006 and February 28, 2007, conveyed via the FKC, and ultimately delivered to the NKWSD turnouts located at mileposts 130.0 and 144.9. At milepost 130.0 the water would be delivered directly into the Poso Creek channel for direct delivery into

Semitropic. Recharge would also occur via the creek channel as the water flows into Semitropic, similar to the spreading in the recharge basins. At Milepost 144.9 water would be delivered through NKWSD's 8-1 lateral which ties into NKWSD's Callaway Canal. The Callaway Canal can serve the NKWSD recharge facilities. These recharge facilities will be used to percolate the Friant CVP water into the ground. Figure 3 shows the location of NKWSD spreading facilities. Semitropic and NKWSD share the same aquifer. The groundwater gradient in the area effectuates the final delivery of the CVP water into Semitropic. As the percolated water follows the natural groundwater gradient from east to west, the groundwater will ultimately flow toward Semitropic and become situated in the groundwater pool beneath Semitropic (Figure 4 & 5).

SECTION 3 AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENSES

3.1 SURFACE WATER RESOURCES

3.1.1 Affected Environment

Friant-Kern Canal

The FKC is operated by the Friant Water Users Authority and carries water over 151.8 miles in a southerly direction from Millerton Lake to the Kern River, four miles west of Bakersfield. The water is used for supplemental and new irrigation supplies in Fresno, Tulare, and Kern Counties. Construction of the canal began in 1945 and was completed in 1951. The canal has an initial capacity of 5,000 cubic feet per second (CFS) that gradually decreases to 2,000 CFS at its terminus in the Kern River (Reclamation, 2006a).

Madera Irrigation District

MID (Figure 1) has a contract with Reclamation for 85,000 AF per year 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 per year. In 1975 Hidden Dam was completed on the Fresno River providing a more regulated flow. MID entered into a long-term Contract with Reclamation for water from Hensley Lake behind Hidden Dam for 24,000 AF per year. MID has pre-1914 water rights, as well, for approximately 20,000 AF per year from the Soquel-Big Creek (MID, 2001). Table 1 below describes the source of water and actual amounts received from 2004 to August 2006.

Table 1: Madera Irrigation District Water Amounts Received (AF) by Source for 2004 – August 2006.

Year	Class I	Class II	215/Surplus	Carryover from previous year	Transferred In	Hidden Dam	Soquel-Big Creek	Free Water	Total
2004	84477	15108	0	7294	10531	24000	7942	0	149352
2005	48588	24846	40513	0	0	24000	15880	0	153827
2006 (thru Aug)	19667	19181	45421	0	0	24000	6982	51946	147530

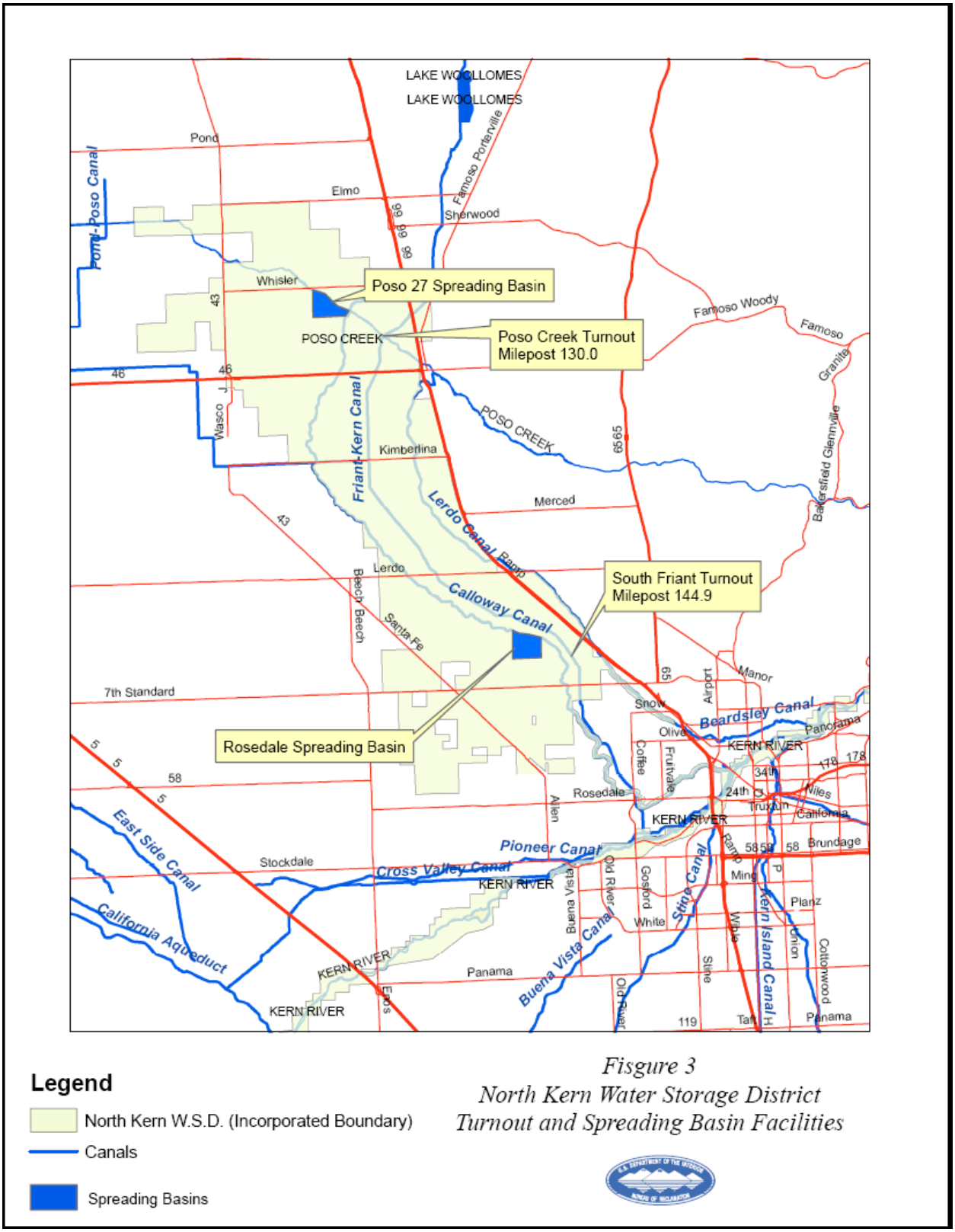
North Kern Water Storage District Facilities

NKWSD (Figure 2), a non-CVP Contractor within the CVP Place of Use, is located south-southwest and downstream from MID and is bisected by the FKC (Figure 3). The approximately 60,000 acres of land within NKWSD are fully developed for irrigate agriculture with water supplies principally from the Kern River and pumped groundwater. NKWSD has a contract for Kern River water with the City of Bakersfield that is administered by Kern County Water Agency. Historical surface water supplies from the Kern River delivered to NKWSD have ranged from less than 10,000 acre feet per year to nearly 400,000 acre feet per year. 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. (NKWSD, 2001).

The turnouts that would be used for the conveyance of MID Friant CVP water to NKWSD are located at mileposts 130.0 and 144.9 on the FKC, and were licensed by Reclamation in November 2002 and constructed in December 2003. 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 Callaway Canal. The Callaway Canal can serve the recharge facilities. Figure 3 shows the location of the turnouts and spreading facilities.

Poso Creek

There are not natural flows in Poso Creek west of Hwy 99 most of the time. Thus the dry Poso Creek channel is used for both recharge and conveyance by NKWSD and Semitropic using Kern River, SWP and CVP water. Water in the Poso Creek channel can be diverted by NKWSD at the intersection of the Calloway Canal and Poso Creek which can lead to NKWSD's northwesterly recharge facility (Figure 3). Semitropic WSD can divert water from Poso Creek further down at Schofield Rd (NKWSD, 2001).



Legend

North Kern W.S.D. (Incorporated Boundary)

Canals

Spreading Basins

Fisgure 3
North Kern Water Storage District
Turnout and Spreading Basin Facilities

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 (Figure 2). The total area of Semitropic is 220,000 acres with about 160,000 irrigated acres (to be consistent with the correct rounding in Table 3-2). There are no incorporated cities within Semitropic. Semitropic was organized in 1958 for the purpose of supplying supplemental water within its service area boundaries (Semitropic, 2006a.)

Surface water in Semitropic is provided under its contract with the Kern County Water Agency for 133,000 AF of SWP water per year. The SWP water is pumped from the Delta and conveyed through the California Aqueduct. The SWP water can be stored in San Luis Reservoir for subsequent conveyance in the California Aqueduct to Semitropic (Semitropic, 1997).

3.1.2 Environmental Consequences

No Action

Under the No Action Alternative, surface water supplies would be the same as the existing conditions described above. This water could remain in Millerton Lake if MID opted to carry-over this water into Contract Year 2007. The storage of this water in Millerton Lake would be temporary and would not lead to long-term benefits for water quantity, quality or temperature.

Proposed Action

Under the proposed action Semitropic would receive up to 15,000 AF of MID Friant CVP water supply in this wet year when MID's water demand has been met and the water is in excess of their 2006 irrigation demand. The water will be made available during the 2006-07 Contract Year for delivery prior to February 28, 2007. As can be seen in Table 1, MID has purchased over 40,000 AF of surplus 215 water and received over 50,000 AF of free/abandoned water, making a portion of their Class 1 water available for transfer to Semitropic.

The Proposed Action improves Semitropic's water supply reliability and operational efficiency, especially during water supply shortages by adding 15,000 AF to the groundwater aquifer underneath Semitropic. The proposed delivery of Friant CVP water to Semitropic, as facilitated by NKWSD spreading and direct delivery, would occur through existing CVP, NKWSD and Semitropic facilities. No new facilities would be needed as a result of the Proposed Action. The Proposed Action would not interfere with the normal operations of any CVP facilities, nor would it impede any CVP obligations to deliver water to other contractors or to local fish and wildlife habitat. Semitropic, NKWSD or MID would not be changing in-district historic land and water management practices as a result of the Proposed Action. Project operations and facility use would not vary significantly under either alternative.

The Proposed Action involves existing water supplies and does not result in additional diversions of water. No SWP water or facilities are involved in the proposed action. Overall water supplies would not increase or decrease. Water quality and quantities would not change.

Cumulative Effects

The Proposed Action will allow Semitropic to utilize the delivered Friant CVP water for meeting crop demands within Semitropic during future water supply shortages. There are no other impacts to canals, facilities, or operations for delivering surface water supplies, since the Proposed Action would utilize existing facilities. The Proposed Action, when added to other past, present, and future actions does not result in additional diversions of water. Water quality

would not be degraded as a result of water service actions. Water service actions are typically requested to manage and move available water supplies through existing facilities to meet existing demands within fluctuating hydrological conditions. Valley wide water supply quantities would not change.

3.2 GROUND WATER RESOURCES

3.2.1 Affected Environment

NKWSD

The historical surface water supplies of NKWSD have ranged from 6,000 acre-feet in a dry year to nearly 394,000 acre-feet in a wet year. Owing to the highly variable Kern River supply, NKWSD has been forced to regulate available surface water supplies from times of surplus (wet years) to times of need (dry years) through conjunctive use of the underlying groundwater reservoir. During wet years on the Kern River, significant deliveries of surface water are made for irrigation and groundwater recharge. NKWSD makes use of about 1,500 acres of recharge basins (water spreading areas); the dry channel of Poso Creek and several other controlled-flow facilities. In wet years, more than 200,000 acre-feet of water have been directed into recharge basins for replenishment of the groundwater aquifer. During dry years, deliveries of surface water for irrigation are greatly reduced and groundwater pumping is significant. Extraction of groundwater by means of district wells has ranged from zero to more than 80,000 AF in one year. NKWSD has successfully operated its conjunctive use project for 50 years and recently began providing banking services to other agencies. In 2001, NKWSD completed an Initial Study of the environmental affects of their groundwater banking program (NKWSD, 2001). Briefly, the program includes:

1. The banking partner would deliver water to NKWSD via the FKC to their turnout. The water would be used by NKWSD in lieu of banking or the water would be used to directly recharge the underlying groundwater.
2. NKWSD would recover the water for the banking partner from their wells and discharge it into the FKC for ultimate delivery, either directly or indirectly to the banking partner.

Kern Tulare and Rag Gulch Water Districts (collectively, KTRG) were the first districts to become a banking partner at NKWSD. Delano-Earlimart Irrigation District has recently decided to bank water at NKWSD as well. Both the Kern Fan and Semitropic monitoring committees monitor the impacts of water banks in the area and ensure the reliability and accountability of the groundwater bank (NKWSD, 2001).

The groundwater underlying NKWSD and Semitropic is part of the larger groundwater basin which underlies the southern San Joaquin Valley. While the districts are in balance with respect to water supplies and uses within their boundaries, groundwater levels are tied to the larger basin, which is in a condition of overdraft. NKWSD and Semitropic resides within the Kern County groundwater sub-basin within the San Joaquin Valley Basin encompassed by the Tulare Lake Hydrologic Region. The Kern County groundwater basin includes the Kern River and the Poso Creek drainage areas, as well as the drainage areas of west side streams in Kern County (DWR, 2005). The Kern County Basin has been identified by DWR as being critically over-drafted. By definition, “a basin is subject to critical conditions of overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts” (DWR, 2003).

Semitropic

In 1995, Semitropic began implementation of the Semitropic Groundwater Banking and Exchange Program. The Program is a long-term water storage program designed to recharge groundwater and reduce overdraft, increase operational reliability and flexibility, and optimize the distribution and use of available water resources between Semitropic and potential banking partners (Semitropic, 1997).

Semitropic's Banking Program capacity is 1,000,000 AF. Total program annual withdrawal amounts are restricted by the size of the pump-back facility, contemporaneous scheduled SWP deliveries to the Groundwater Bank, and the proportion of the total program capacity that has been contracted to other banking partners. The annual withdrawal capacity includes up to 133,000 AF of SWP water that could be exchanged within the California Aqueduct, and/or an additional 90,000 AF per year of groundwater extraction to the California Aqueduct. Thus, the return capacity of the original program is a minimum of 90,000 AF per year, and a maximum of 223,000 AF per year (Semitropic, 1997).

Semitropic has obtained the necessary permits and is ready to construct the second phase of its groundwater banking program. This new unit, the Stored Water Recovery Unit (SWRU), would increase storage by 650,000 AF to a maximum of 1.65 million AF and increase recovery capacity by 200,000 AF per year for a total guaranteed or pumpback capacity of 290,000 AF per year. This means that the Semitropic Groundwater Storage Bank, including its entitlement exchange capability of up to 133,000 AF per year, will be able to deliver up to 423,000 AF per year of dry year yield to the California Aqueduct. (Semitropic, 2006b).

Semitropic established a groundwater monitoring program in 1994 so that any adverse groundwater impacts of the Semitropic water banking project could be mitigated. The monitoring program is overseen by a committee made up of Semitropic, adjoining districts (including Buena Vista Water Storage District, Rosedale-Rio Bravo Water Storage District, Shafter-Wasco Irrigation District, North Kern Water Storage District, and Southern San Joaquin Municipal Utility District), and banking participants. Kern County Water Agency and DWR are interested parties and participate in committee activities and water scheduling. Monitoring has included water level measurement in monitoring wells and groundwater quality (including salinity and nitrate) evaluations (Semitropic, 1994). In addition, activities of Semitropic and the adjoining activities that affect groundwater conditions are compiled by the committee. Included are diversions of surface water into each district, crop surveys and estimates of crop consumptive use, and, where available, groundwater pumping data. A report on the committee's activity and groundwater conditions is published every two years. The following information was obtained from the January 2005 Groundwater Monitoring Report.

Subsurface Geologic Conditions

In the Semitropic area north of Seventh Standard Road, at least one confining bed is present at about 300 feet in depth, separating the strata into two aquifers. The upper zone is above the confining bed and the lower zone is below the confining bed. Because of this, two different water elevation maps were prepared for the Groundwater Monitoring Report (Figure 4 & 5) (Semitropic, 2005).

Groundwater Flow

Generally, groundwater in the area east and south of Semitropic flows into Semitropic below a 300-foot deep confining bed. This occurs because of a cone of depression beneath Semitropic.

Figures 4 and 5 show water level elevations and the direction of groundwater flow in the monitoring area for spring 2003 for both the upper and lower zones (Semitropic, 2005).

According to the 2005 Groundwater monitoring report, in spring 2003, for the lower zone there was an elongated, northwest trending cone of depression in which water-level elevations were less than 40 feet above mean sea level. There were two areas in this depression where water-level elevations were ten feet or more below sea level. One was northwest of Wasco, and the other was near the north boundary of Semitropic. To the east near the Central Valley Highway and north of Shafter, water elevations ranged from about 80 to 120 feet. Beneath the northeastern most and southeastern most part of the monitoring area, water-level elevations exceeded 140 feet above mean sea level. The direction of groundwater flow was into Semitropic, except along the eastern part of the north boundary of the district (Figure 4) (Semitropic, 2005).

In spring 2003, there were two areas of the upper zone where water-level elevations exceeded 200 feet above mean sea level. The largest was beneath the west and southwest parts of the monitoring area, where groundwater was moving into Semitropic. The second was northwest and west of Pond, where a westerly trending water-level ridge was present. Groundwater above the 300-foot clay was moving to the north and south away from this mound. South of Lerdo Road, shallow groundwater was moving toward the southeast toward the Rosedale-Rio Bravo Water Storage District (Figure 5) (Semitropic, 2005).

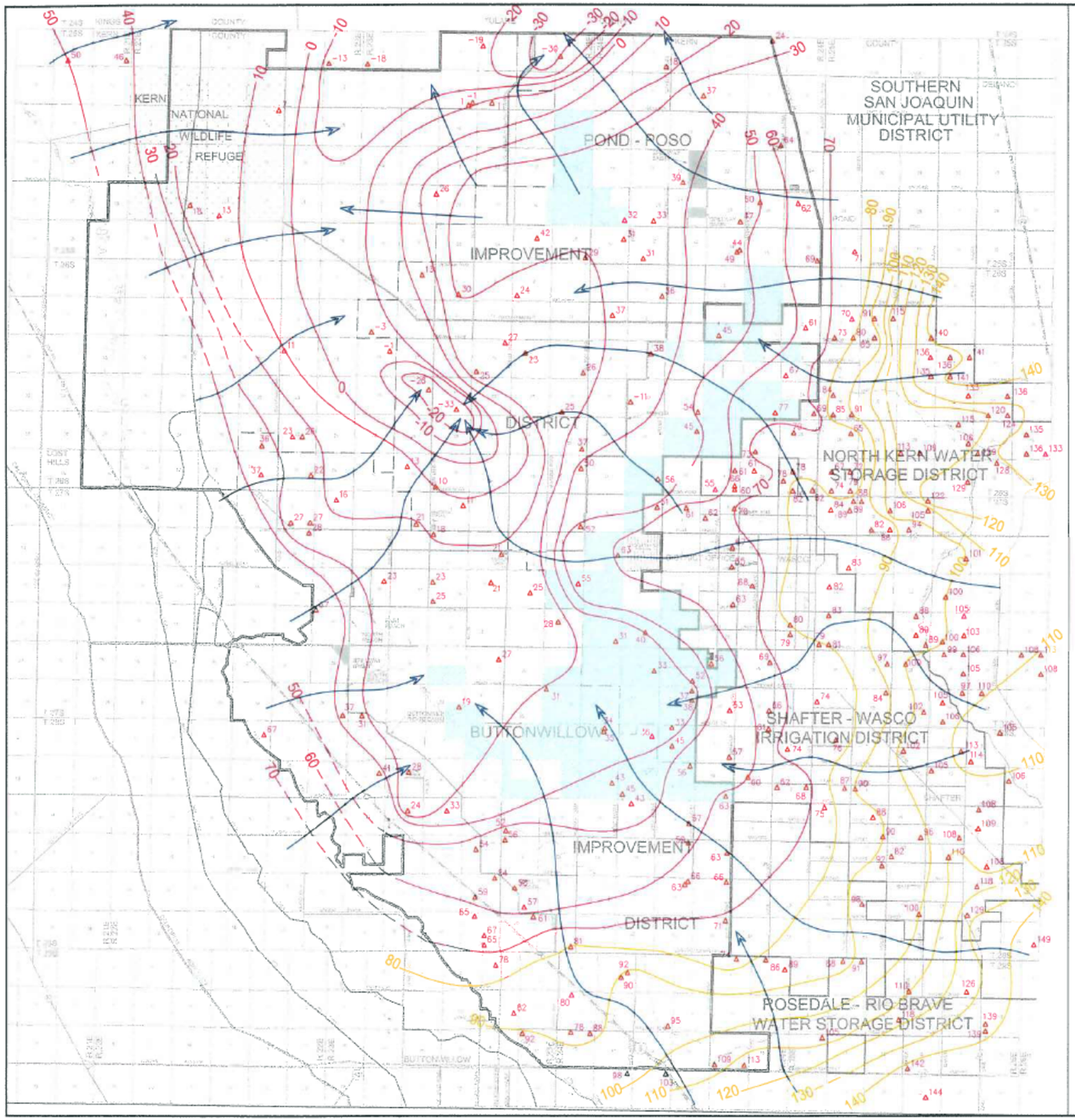


FIGURE 4

WATER - LEVEL ELEVATIONS
AND DIRECTION OF GROUNDWATER FLOW
FOR THE FOREBAY AREA AND LOWER ZONE
(SPRING 2003)

EXPLANATION

- 50 — Well and water-level elevation (ft. above M.S.L.)
- direction of groundwater flow
- 160 — Water-level elevation contours (ft. above M.S.L.) for forebay area.
- 30 — Water-level elevation contours (ft. above M.S.L.) for lower zone.

SEMITROPIC WATER STORAGE DISTRICT

SCALE OF MILES
1 0 1 2 3

file: swsd_lower_zone_spring_2003.dwg rrs/22SEP03

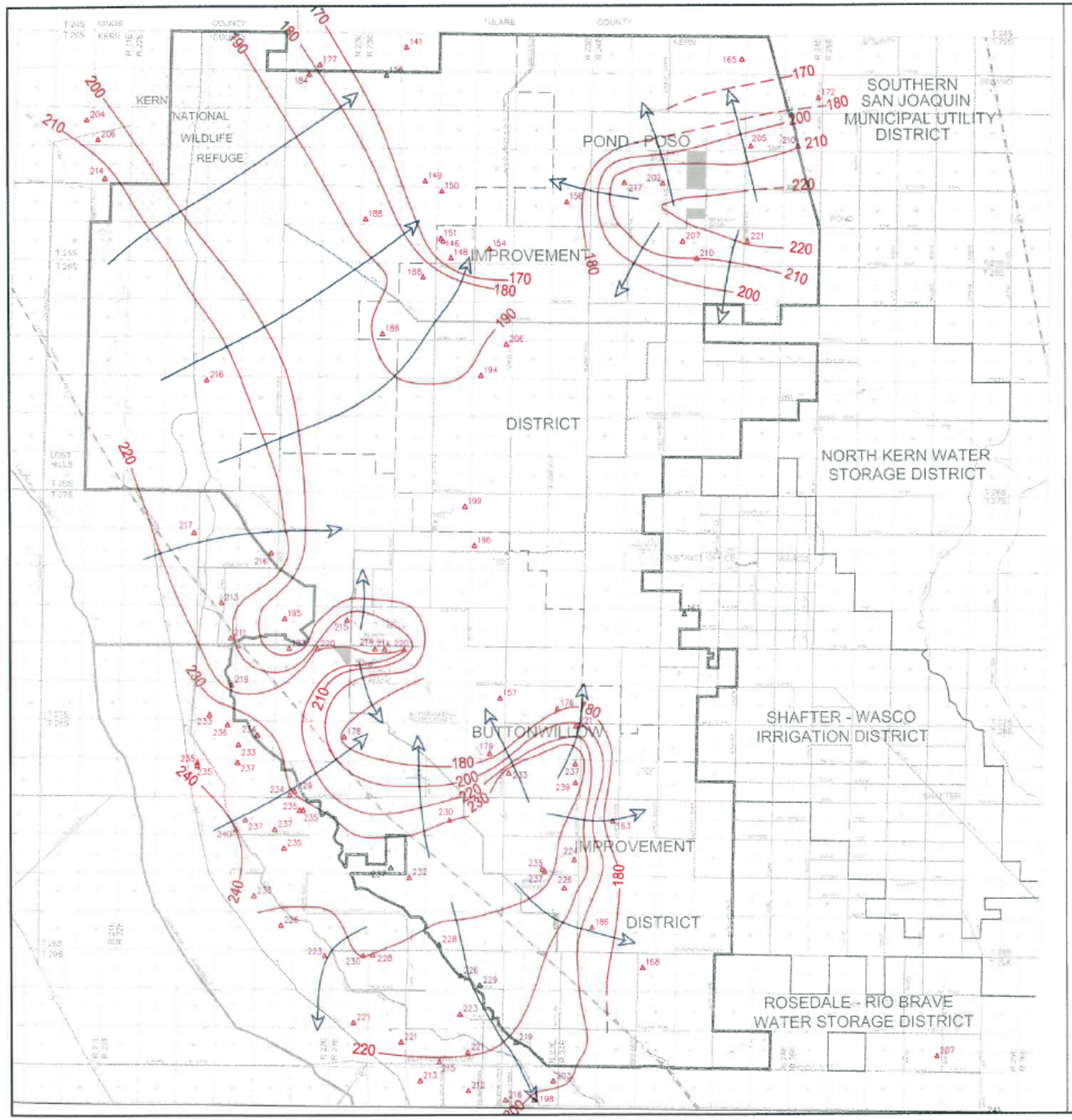


FIGURE 5

WATER - LEVEL ELEVATIONS
AND DIRECTION OF GROUNDWATER FLOW
FOR THE UPPER ZONE
(SPRING 2003)

EXPLANATION

200 Well and water-level elevation (ft. above M.S.L.)

Direction of groundwater flow

30 Water-level elevation contours for upper zone (Ft. above M.S.L.)

SEMITROPIC WATER STORAGE DISTRICT

SCALE OF MILES
1 0 1 2 3

file: swsd_upper zone spring 2003.dwg rrs/25SEPT03

3.3 ENVIRONMENTAL CONSEQUENCES

No Action
Under the No Action Alternative, groundwater resources would be the same as the existing conditions described above.

Proposed Action
As discussed above in the Affected Environment section, the flow of groundwater from NKWSD is into Semitropic at both the lower and upper zones. Therefore, should the 15,000 AF of CVP water be spread into NKWSD spreading facilities, the water would eventually reach its final destination in the cone of depression underlying Semitropic. Both NKWSD and Semitropic share the same aquifer, therefore the replenishment of the aquifer will benefit both districts even though the transfer is only to Semitropic. Should Poso Creek be used to transfer the water to Semitropic, then the water will be directly recharged into the aquifer underlying Semitropic.

Direct recharge through the transfer of surface water reduces overdraft by utilizing surface supplies in lieu of groundwater pumping. The Proposed Action would provide water above natural recharge to Semitropic in a dry or critical dry year and therefore reduce the need to pump groundwater. The project would not adversely affect the groundwater under Semitropic. In fact, with the availability of up to 15,000 AF of additional irrigation water in water supply shortages, the Proposed Action would likely decrease impacts of groundwater pumping within Semitropic during a dry year. The delivery of up to 15,000 AF of Friant CVP water to NKWSD for delivery within Semitropic will help protect the local aquifer from overdraft in the interim period since the whole amount will remain in the groundwater basin.

MID is not pumping groundwater to make this water available for transfer. The 15,000 AF of CVP water transferred to Semitropic is in excess of MID's 2006 irrigation demands. The excess water resulted from extremely wet conditions and high local runoff during the 2006-07 water year which met part of MID's irrigation demand, as well as the purchase of 215-water and the delivery of over 50,000 AF of abandoned water to MID.

Cumulative Effects
To the extent that the CVP has delivered surface water supplies into Semitropic with this and previous projects, groundwater management has improved the aquifers in the region. MID has several other on-going projects to transfer surplus water out of the district and make available for sale in Water Year 2006. These additional projects will be environmentally reviewed in subsequent EA's. These water transfers are the result of excess water. Demands have been met including groundwater management within MID for Water Year 2006.

3.4 LAND USE

3.4.1 Affected Environment

Kern County
Kern County is the fourth most productive agricultural county in the nation. As a semiarid region, it must rely on an adequate imported water supply for its farming, and demand is expected to increase in the future for Kern County's agricultural products (Kern, 2005). Semitropic and NKWSD are situated within Kern County.

Land use in Semitropic is primarily agricultural, with alfalfa, cotton, and vegetable comprising the largest acreage under cultivation (Table 2).

Semitropic provides water to customers for agricultural use only. Throughout Semitropic, water is used for the following crops (based on a 2003 crop survey). (Semitropic, 2006a).

TABLE 2: LAND USE IN SEMITROPIC WATER STORAGE DISTRICT

Crop	Acres	Percentage make percentages whole numbers
Alfalfa	27,088.42	16.95%
Cotton	25,323.80	15.85%
Nut crops	23,533.49	14.73%
Fallowed (temporary crops)	13,152.84	8.23%
Vegetables	25,185.79	15.76%
Grain/pasture	23,582.11	14.76%
Duck ponds	8,838.15	5.53%
Grapes	5,248.17	3.28%
Waste & miscellaneous land	6,563.01	4.11%
Fruits	680.35	0.43% o.4
Nursery	577.48	0.36% 0.4
Total Irrigated Acres	**159,773.61**	**100%**
Undeveloped Native Vegetation	**60,785.86**	
Total District Acres	**220,559.47**	

Land use in NKWSD is primarily agricultural, with alfalfa, cotton, nuts and vegetables comprising the largest acreage under cultivation, based on 2003 crop report (Semitropic, 2006a). (Table 3).

TABLE 3: LAND USE IN NORTH KERN WATER STORAGE DISTRICT

Crop	Acres	Percentage
Alfalfa	11,050	17%
Cotton	10,400	16%
Vegetables	10,400	16%
Almonds and Pistachios	9,750	15%
Grains	9,750	15%
Grapes and Other Fruits	1,950	3%
*Other Land Uses	11,700	18%
Total Irrigated Acres	**65,000.00**	**100%**
Undeveloped Native Vegetation	**5,000.00**	
Total District Acres	**70,000.00**	

**Other land uses includes fallowed, waste and miscellaneous lands.*

Madera County

Madera Irrigation District lies within Madera County a very productive agricultural community within the San Joaquin Valley. The City of Madera lies within a portion of MID boundaries and is represented below as the urban land use. As shown in Table 4, the primary land use is for agriculture and the main crops are Grapes and Almonds/Pistachios, based on 2003 crop report (MID, 2001).

TABLE 4: LAND USE IN MADERA IRRIGATION DISTRICT

Crop	Acres	Percentage
Grapes	35,748	29%
Almonds and Other Nuts	33,284	27%
Grains (Wheat, Oat Corn)	20,956	17%
Alfalfa	17,258	14%
Cotton	7,369	6%
Fruits	7,396	6%
Vegetables	1,233	1%
Total Irrigated Acres	**123,271**	**100%**
Undeveloped Native Vegetation	**210**	
Urban Development	**8,066**	
Total District Acres	**131,547**	

3.4.2 Environmental Consequences

No Action

Land use conditions under the No Action Alternative would remain the same as the existing land use conditions described above; therefore, no additional effects to land use are associated with this alternative.

Proposed Action

The proposed action would not change land use conditions from existing conditions. All water would move through existing facilities and be placed on established agricultural lands. None of the Friant CVP water would be used to place any untilled or new lands into production, or to convert undeveloped land to other uses. Semitropic would not promote additional land to be farmed. Any water that is delivered to lands within Semitropic as a result of this project would be used on established agricultural lands to help offset the dry year water supply shortages faced by Semitropic and hence, reduce the annual amount of groundwater pumped or reduce annual transfers from other sources. The Proposed Action is a one-time transfer involving a small amount of water and would not provide incentive for long-term land use changes. Therefore, no impacts to land use are expected from the Proposed Action.

Cumulative Effects

The Proposed Action when taken into consideration with MID's other water transfer activities have no potential to induce growth in MID, NKWSD or Semitropic, nor would it result in the cultivation of native untilled land. NKWSD and Semitropic would spread and deliver the water using existing facilities. Semitropic would be able to access this stored water during water supply shortages and the action provides them with greater flexibility for water deliveries.

3.5 BIOLOGICAL RESOURCES

3.5.1 Affected Environment

Kern County

The irrigated lands in NKWSD are similar to biological resources found in other agricultural areas of the San Joaquin Valley. 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. The non-irrigated lands in NKWSD include valley mesquite, saltbush habitat, and riparian-freshwater habitat. Occurrences of these native habitats are not common or extensive because of the high degree of existing agricultural development. The low lying shrubs and scattered mesquite host a variety of birds, mammals, and insects including dove, quail, coyotes, rabbits and lizards. The limited marshlands support some waterfowl and waterfowl nesting and wintering habitat (Reclamation, 2006b).

The irrigated lands in Semitropic are similar to those described above. The non-irrigated lands in Semitropic include valley mesquite, saltbush habitat, and riparian-freshwater habitat. Occurrences of the latter are not common or extensive because of the lack of freshwater to sustain the habitat throughout the year. The low lying shrubs and scattered mesquite host a variety of birds, mammals, and insects including dove, quail, coyotes, rabbits and lizards. The limited marshlands support some waterfowl and waterfowl nesting and wintering habitat. Some of the largest blocks of native lands remaining in the southern San Joaquin Valley are in the boundaries of Semitropic. Many of these lands are protected, such as the Kern National Wildlife Refuge and the Center for Natural Lands Management's Lokern Preserve, but others are not (Reclamation, 2006).

The conveyance facilities to be used in the Proposed Action are not managed for fisheries. Some non-native warm-water fish may inhabit the canals. No sensitive or special-status fish species occur in the conveyance facilities that would be used in the project, except that the Kern Brook lamprey (a State Species of Special Concern) is known from the Friant-Kern Canal.

The following list was obtained on October 13, 2006 by accessing the U.S. Fish and Wildlife Database: http://www.fws.gov/sacramento/es/spp_list.htm. The list is for the following 7 ½ minute U.S. Geological Survey quadrangles, which are overlapped by Semitropic: Lone Tree Well, Hacienda Ranch, Allensworth, Delano West, Lost Hills NW, Lost Hills NE, Wasco NW, Pond, Lost Hills, Semitropic, Wasco SW, Wasco, Lokern, Buttonwillow and Rio Bravo. See Table 5 for the species and critical habitat on the combined list for these quadrangles FWS, 2006).

TABLE 5: FEDERAL STATUS SPECIES ON QUAD LISTS FOR SEMITROPIC

Common Name	***Species Name***	***Fed Status***	***ESA***	***Summary basis for ESA determination***
Bald eagle	*Haliaeetus leucocephalus*	T[1]	NE[2]	No individuals or habitat in area of effect
Blunt-nosed leopard lizard	*Gambilia sila*	E[3]	NE	Records are either old (ca 1975) or on Center for Natural Lands Management or DFG managed lands

[1] T: Listed as Threatened under the ESA.
[2] NE: No Effect to the species or critical habitat determination under ESA.

Buena Vista Lake shrew	*Sorex ornatus relictus*	E	NE	Only known location in action area is on Kern NWR
California jewelflower	*Caulanthus californicus*	E	NE	Does not inhabit croplands or lands fallowed and untilled for less than three years
California red-legged frog	*Rana aurora draytonii*	T	NE	No individuals or habitat in area of effect
Conservancy fairy shrimp	*Branchinecta conservatio*	E	NE	No vernal pools in area of affect
Delta smelt	*Hypomesus transpacificus*	T	NE	No downstream effects from action
Giant garter snake	*Thamnophis gigas*	T	NE	No individuals or habitat in area of effect
Giant kangaroo rat	*Dipodomys ingens*	E	NE	No individuals known; survey data along Poso Creek showed kangaroo rat tracks, but not to species and affected only by construction, which will not result from the project
Kern mallow	*Eremalche kernensis*	E	NE	Only one record, which is more than 10 yrs old; no facilities or construction will result from the project; no new lands will be brought into production
San Joaquin kit fox	*Vulpes macrotis mutica*	E	NE	No construction of new facilities; no conversion of lands from existing uses
San Joaquin woolly-threads	*Monolopia congdonii*	E	NE	No records within 10 years; species not expected to occur close enough to croplands to colonize bare soil
Tipton kangaroo rat	*Dipodomys nitratoides nitratoides*	E	NE	Occurrences on Buttonwillow Ecological Reserve and lands managed by the Center for Natural Lands Management; other occurrences are from 1985; survey data showed kangaroo rat tracks along Poso Creek, but not to species & affected only by construction, which will not result from the project
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	T	NE	No elderberry shrubs in area of effect
Vernal pool fairy shrimp	*Branchinecta lynchi*	T	NE	No vernal pools in area of effect
Vernal pool fairy shrimp - critical habitat		CH	NE	None in area of effect

The following list was obtained on October 13, 2006 by accessing the U.S. Fish and Wildlife Database: http://www.fws.gov/sacramento/es/spp_list.htm. The list is for the Draft Environmental Assessment EA-06-130 following 7 ½ minute U.S. Geological Survey quadrangles, which are overlapped by NKWSD: Oil Center, Oildale, Rosedale, Stevens, Gosford, Tupman, McFarland, Famoso, Pond, Wasco NW, Wasco SW and Wasco. See Table 6 for the species and critical habitat on the combined list for these quadrangles (FWS, 2006).

TABLE 6: FEDERAL STATUS SPECIES ON QUAD LISTS FOR NKWSD

Common Name	***Scientific Name***	***Status***	***ESA***	***Summary basis for ESA determination***
Bakersfield	*Opuntia treleasei*	E[1]	NE	Does not inhabit croplands or lands fallowed and untilled

[3] E: Listed as Endangered under the ESA.

cactus				for less than three years
Bald eagle	*Haliaeetus leucocephalus*	T[3]	NE	No individuals or habitat in area of effect
Blunt-nosed leopard lizard	*Gambelia sila*	E	NE	Records are either old (ca 1975) or on Center for Natural Lands Management or DFG managed lands
Buena Vista Lake shrew	*Sorex ornatus relictus*	E	NE	Known to occur in southern portion of district. No construction of new facilities; no conversion of lands from existing uses
California red-legged frog	*Rana aurora draytonii*	T	NE	No individuals or habitat in area of effect
Delta smelt	*Hypomesus transpacificus*	T	NE	No downstream effects from action
Giant garter snake	*Thamnophis gigas*	T	NE	Species believed to have been extirpated from Tulare Basin except Burrel/Lanare; no construction of new facilities; no conversion of lands from existing uses
Giant kangaroo rat	*Dipodomys ingens*	E	NE	Survey data along Poso Creek showed kangaroo rat tracks, but not to species and affected only by construction, which will not result from the project
San Joaquin kit fox	*Vulpes macrotis mutica*	E	NE	No construction of new facilities; no conversion of lands from existing uses
San Joaquin woolly-threads	*Monolopia congdonii*	E	NE	No records within 10 years; species not expected to occur close enough to croplands to colonize bare soil
Tipton kangaroo rat	*Dipodomys nitratoides nitratoides*	E	NE	Some records from southwestern portion of the district; survey data showed kangaroo rat tracks along Poso Creek, but not to species & affected only by construction, which will not result from the project
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	T	NE	No elderberry shrubs in area of effect
Vernal pool fairy shrimp	*Branchinecta lynchi*	T	NE	No vernal pools in area of effect

[1] E: Listed as Endangered under the ESA.

[2] NE: No Effect to the species or critical habitat determination under ESA.

[3] T: Listed as Threatened under the ESA.

Special status species known to occur in NKWSD are Swainson's hawk, Tipton kangaroo rat, the San Joaquin kit fox, Buena Vista Lake shrew and the blunt-nosed leopard lizard. Bakersfield cactus is known from the vicinity of the district's southwestern portion.

MID

The Central Valley Project Improvement Act (CVPIA) established an environmental restoration fund maintained through the imposition of a surcharge on each acre-foot of Project water delivered. The CVPIA dedicates 800,000 AF per year to environmental purposes and further mandates the delivery of water to wetland habitat areas. Land within the Friant division historically provided habitat for a variety of plant 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. Of approximately 5.6 million acres of valley grasslands and San Joaquin saltbrush scrub, the primary natural habitats across the valley, less than 5 percent remains today. Much of the remaining habitat consists of isolated fragments supporting small, highly vulnerable populations. Data compiled by the California Energy commission

indicates that only 15 percent of the Southern San Joaquin Valley remains in some form of natural condition (Reclamation, 2001).

The following list was obtained on October 13, 2006, by accessing the U.S. Fish and Wildlife Database: http://www.fws.gov/sacramento/es/spp_list.htm. The list is for the Draft Environmental Assessment EA-06-130 following 7 ½ minute U.S. Geological Survey quadrangles, which are overlapped by MID: Bonita Ranch, Madera, Gregg, Herndon, Lanesbridge, Biola, Gravelly Ford, Firebaugh NE, Berenda, Kismet, Daulton, and Raynor Creek. See Table 7 for the species and critical habitat on the combined list for these quadrangles (FWS, 2006).

TABLE 7: FEDERAL STATUS SPECIES ON QUAD LISTS FOR MID

Common Name	***Species Name***	***Fed Status***	***ESA***	***Summary basis for ESA determination***
Bald eagle	*Haliaeetus leucocephalus*	T	NE	No individuals or habitat in area of effect
Blunt-nosed leopard lizard	*Gambilia sila*	E	NE	No individuals or habitat in area of effect
Conservancy fairy shrimp	*Branchinecta conservatio*	E	NE	Some vernal pools in eastern portion of the district, but no conversion of habitat, no new facilities
California tiger salamander, Central DPS	*Ambystoma californiense*	T	NE	Documented recent occurrences in eastern portion of the district, but no conversion of habitat, no new facilities
California red-legged frog	*Rana aurora draytonii*	T	NE	No individuals or habitat in area of effect
Central Valley steelhead	*Oncorhynchus mykiss*	T	NE	No effect on natural stream systems
Delta smelt	*Hypomesus transpacificus*	T	NE	No downstream effects from action
Fresno kangaroo rat	*Dipodomys nitratoides exilis*	E	NE	No individuals or habitat in area of affect; species not trapped since 1992 but may still occur on Alkali Sink.
Giant garter snake	*Thamnophis gigas*	T	NE	No individuals or habitat in area of effect
Greene's tuctoria-critical habitat	*Tuctorai greenei*	CH	NE	Documented recent occurrences in eastern portion of the district, but no conversion of habitat, no new facilities
Hairy Orcutt grass Hairy orcutt grass-critical habitat	*Orcuttia pilosa*	E CH	NE	Some vernal pools in eastern portion of the district, but no conversion of habitat, no new facilities
Fleshy Owl's Clover	*Castilleja campestris spp. Succulenta*	T	NE	Documented recent occurrences in eastern portion of the district, but no conversion of habitat, no new facilities
Fleshy Owl's Clover- Critical Habitat		CH	NE	Occurs in eastern portion of the district, but no conversion of habitat, no new facilities
San Joaquin kit fox	*Vulpes macrotis mutica*	E	NE	No construction of new facilities; no conversion of lands from existing uses
San Joaquin Valley Orcutt Grass	*Orcuttia inaequalis*	T	NE	Documented recent occurrences in eastern portion of the district, but no

San Joaquin Valley Orcutt Grass critical habitat		CH	NE	conversion of habitat, no new facilities Occurs in eastern portion of the district, but no conversion of habitat, no new facilities
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	T	NE	No elderberry shrubs in area of effect
Vernal pool fairy shrimp	*Branchinecta lynchi*	T	NE	Documented recent occurrences in eastern portion of the district, but no conversion of habitat, no new facilities
Vernal pool fairy shrimp - critical habitat		CH	NE	Occurs in eastern portion of the district, but no conversion of habitat, no new facilities
Vernal pool tadpole shrimp	*Lepidurus packardi*	E	NE	Some vernal pools in eastern portion of the district, but no conversion of habitat, no new facilities

Environmental Consequences

No Action

Under the No Action Alternative there are no impacts to wildlife and special status species, as no new facilities would be constructed and existing deliveries would continue to operate as has historically occurred. The conditions of special status wildlife species and habitats under the No Action Alternative would be the same as they would be under existing conditions described in the Affected Environment; therefore, no additional effects to special status species or critical habitats are associated with this alternative.

Proposed Action

The Proposed Action would be consistent with the current operations at MID, NKWSD and Semitropic and would not negatively impact CVP and SWP deliveries. The Proposed Action would not prevent water deliveries to refuges or preclude the Environmental Water Account from negotiating actions to obtain water from willing sellers in accordance with the Central Valley Project Improvement Act. Critical habitat has been designated by the U.S. Fish & Wildlife Service for vernal pool species and the California tiger salamander; one unit of critical habitat for vernal pool fairy shrimp is within a short distance (~5 miles) of the boundaries of NKWSD and units for this species and others are in eastern MID. None will be affected by the Proposed Action, because no native land or land untilled for three or more years can be converted as a result of the action and no new facilities will be constructed.

Demands have been met and conditions in MID that support biological resources would not change. The water delivered to lands in Semitropic will be used to irrigate crops already in cultivation. No new facilities will be required to bring the water to these locations, and the Proposed Action will bring no native or untilled lands into production. Orchards provide some habitat for the San Joaquin kit fox, but the habitat value is relatively small, and would not be affected by the Proposed Action. Within Semitropic boundaries, there are a number of records shown by the California Natural Diversity Database (CNDDB) for species listed under the Endangered Species Act. Those unprotected native lands in Semitropic cannot be brought into production with the transferred water (which is a one-time transfer of a relatively small amount of water). The Proposed Action would not change the availability or quality of any habitat for the California least tern, because no waterways or nesting areas will be created, destroyed or

modified in any way. No natural waterways containing sensitive fishes will be affected; no habitat will be affected for the Kern Brook lamprey, which continues to live in the siphons of the Friant-Kern Canal as long as it contains water.

As a result of the above factors, Reclamation has made a determination of no effect for this transfer activity under the Endangered Species Act for all species expected to be within the action area. Therefore, no consultation is required.

Cumulative Effects
As the Proposed Action itself has no impacts on special-status plant, fish or wildlife resources, it does not contribute to cumulative impacts on those resources.

3.6 CULTURAL RESOURCES

3.6.1 Affected Environment

Cultural Resources is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. The San Joaquin Valley is rich in historical and pre-historic 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 Central Valley. It is possible that many cultural resources lie undiscovered across the valley. However, a systematic inventory for cultural resources on the farmers' lands in MID, NKWSD, and Semitropic has not been conducted, and prehistoric and historic resources may be present on these lands. The lands have historically been cultivated for agricultural purposes and have been routinely tilled and irrigated. Any archaeological resources that may be present have likely been impacted by these agricultural practices.

The CVP is being evaluated for the National Register of Historic Places (NRHP). Facilities include the Friant Dam, Friant-Kern Canal, Tracy Pumping Plant, and Delta-Mendota Canal.

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. The Friant-Kern Canal carries water over 151.8 miles in a southerly direction from Millerton Lake to the Kern River, four miles west of Bakersfield. The water is used for supplemental and new irrigation supplies in Fresno, Tulare, and Kern Counties. Construction of the canal began in 1945 and was completed in 1951.

3.6.2 Environmental Consequences

No Action
Under the No Action Alternative, there are no impacts to cultural resources as no new facilities would be constructed. Existing recharge and extraction operations would continue to operate as has historically occurred. Current recharge and extraction operations would continue to operate within existing facilities. There would be no potential to affect historic properties.

Proposed Action
The conveyance of Friant CVP and exchanged water would not harm any cultural resources. It would be exchanged and conveyed in existing facilities and canals to established agricultural land. No excavation or construction is required to convey the water and no untilled land will be

cultivated with this water. Consequently, the undertaking is not a type of activity with the potential to affect cultural resources eligible to the NRHP.

Cumulative Effects
The Proposed Action when added to the previous transfer activities and reasonably foreseeable transfer activities of Semitropic does not contribute to cumulative affects to archeological or cultural resources.

3.7 INDIAN TRUST ASSETS

3.7.1 Affected Environment

Indian trust assets (ITAs) are legal interests in assets that are held in trust by the U.S. Government for federally recognized Indian tribes or individual Indians. 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. ITAs cannot be sold, leased or otherwise alienated without United States' approval. ITAs 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's may be located off trust land.

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

There are no Indian Trust Assets in MID, NKWSD, or Semitropic. The nearest Indian trust assets to this action are located at the Tule River Indian Reservation about 40 miles northeast of the NKWSD.

3.7.2 Environmental Consequences

No Action
Conditions would remain the same as existing conditions under the No Action Alternative, therefore there are no impacts to Indian Trust Assets.

Proposed Action
There are no tribes possessing legal property interests held in trust by the United States in the water involved with this action, nor is there such a property interest in the lands designated to receive the water proposed in this action. The nearest Indian trust assets to this action are located at the Tule River Indian Reservation about 40 miles northeast of the NKWSD. This action will have no adverse effect on Indian trust assets.

Cumulative Effects
The Proposed Action when added with the previous transfer activities and reasonably foreseeable transfer activities of Semitropic does not contribute to cumulative affects to ITAs

3.8 SOCIOECONOMIC RESOURCES

3.8.1 Affected Environments

The socioeconomic setting is dependant upon population, employment, housing, and revenues earned by the primary private employers. As stated earlier, MID, NKWSD, and Semitropic are comprised primarily of irrigated agricultural lands. There are many communities across the area where farm workers reside. There are many small businesses that support agriculture such as feed and fertilizer sales, machinery sales and service, pesticide applicators, transport, packaging, and marketing.

Madera County is primarily a rural agricultural community and contributes to its vigorous economic force. Farm workers reside in homes within or close to Madera County. There are many small businesses that support agriculture like feed and fertilizer sales, machinery sales and service, pesticide applicators, transport, packaging, marketing and other associated jobs, in recent years there has been a growing retail business and the future looks to be heading this way. Madera County has lower business start-up costs and cost of living expenses that add to its attractiveness as well (MID, 2001).

Kern County's (NKWSD and Semitropic) economy is based on the diverse assets of agriculture, oil, aerospace and transportation and warehousing services. Despite this seeming economic diversification, the overall performance of the county has been mixed in recent years when compared to the State and other counties, although noticeable progress has been made overall. This is due in part to the cyclical and uncertain nature of oil and aerospace which are often affected by factors beyond Kern County. Further, the agricultural sector consists mostly of low paying and often seasonal employment which limits the positive multipliers within the economy.

Lower business costs, the availability of land, and relatively lower costs of living also add to Kern's attractiveness and competitive advantage. On the other hand, lackluster new business growth, lower educational attainment and skills gaps, out migration of young people, a high incidence of low-to-moderate income residents, and air quality issues—especially within the San Joaquin Valley--are noted disadvantages in Kern County (Kern, 2005).

3.8.2 Environmental Consequences

No Action

The socioeconomic conditions under the No Action Alternative would be the same as they would be under existing conditions described in the Affected Environment; therefore, no additional effects are associated with this alternative.

Proposed Action

The delivery of the Friant CVP water to Semitropic lands would provide water to the area in water supply shortage years and would help sustain Semitropic's existing croplands. Businesses rely on these crops to maintain jobs. The Proposed Action would not induce population growth within Semitropic, nor would seasonal labor requirements change. Agriculturally dependent businesses would not be affected by the proposed action. No adverse effects on public health and safety would occur. The Proposed Action would not have highly controversial or uncertain environmental effects or involve unique or unknown environmental risks. The Proposed Action would continue to support the economic vitality in the region. MID, NKWSD, and Semitropic are responsible for managing water for the benefit of agriculture, since they exist to support

growers within their respective districts. Maximizing the use of water service actions is beneficial to local economic conditions and agricultural employment.

Cumulative Effects
Transfers of this nature provide options for managing the finite water supplies. Other past, present and foreseeable future water transfer actions would not have highly controversial or uncertain environmental effects or involve unique or unknown environmental risks, nor would they have cumulatively significant environmental effects.

3.9 ENVIRONMENTAL JUSTICE

3.9.1 Affected Environment

As mandated by Executive Order 12898 (E.O. 12898), published February 11, 1994, entitled, "Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations", this EA addresses potential environmental justice concerns. The population of some small communities typically increases during late summer harvest. The market for seasonal workers on local farms draws thousands of migrant workers, commonly of Hispanic origin from Mexico and Central America.

3.9.2 Environmental Consequences

No Action
The No Action Alternative would have no impact on environmental justice. MID, NKWSD, and Semitropic would continue to engage opportunities to maximize management of their water supply within the facilities available to them either in district or utilizing other district's 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.

Proposed Action
The Proposed Action is a transfer of water from an area that demands have been met and to an area that needs water. The amount of crops or agricultural lands would not change as a result of the Proposed Action. The Proposed Action would not cause dislocation, changes in employment, or increase flood, drought, or disease. The Proposed Action would not disproportionately impact economically disadvantaged or minority populations. No impacts relevant to Environmental Justice are anticipated because the project does not include any construction or development of project facilities, or any change in operations that would affect the general public.

Cumulative Effects
The Proposed Action would not have any measurable impact on minority or disadvantaged populations within MID, NKWSD, or Semitropic in conjunction with other activities.

SECTION 4 CONSULTATION AND COORDINATION

4.1 FISH AND WILDLIFE COORDINATION ACT (16 USC § 651 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 implementation of the CVPIA has been jointly analyzed by Reclamation and the FWS and is being jointly implemented. The Proposed Action does not involve construction projects. Therefore the FWCA does not apply.

4.2 ENDANGERED SPECIES ACT (16 USC § 1521 ET SEQ.)

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

Reclamation has determined the Proposed Action would have no effect on threatened and endangered species and no further consultation is required under Section 7 of the Endangered Species Act. This determination is based on the fact that the Proposed Action involves water already allocated and available to MID. All demands in MID have been met. Therefore, habitat types and conditions that support biological resources in MID would not change. This water would be transferred and conveyed in existing facilities. No modifications or construction would be required. This water would support existing agricultural lands in NKWSD and Semitropic. The Proposed Action would support existing land uses and conditions. No native lands would be converted or cultivated with CVP water. Therefore, the Proposed Action would have no effect on federally proposed or listed threatened or endangered species or their proposed or designated critical habitat.

4.3 NATIONAL HISTORIC PRESERVATION ACT (15 USC § 470 ET SEQ.)

Section 106 of the National Historic Preservation Act requires federal agencies to evaluate the effects of federal undertakings on historical, archaeological and cultural resources. Due to the nature of the Proposed Action, there would be no effect on any historical, archaeological or cultural resources, and no further compliance actions are required.

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