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**FINAL ENVIRONMENTAL ASSESSMENT**

*2010 WARREN ACT CONTRACT AND LICENSE FOR DELTA LANDS RECLAMATION  
DISTRICT 770*

**Appendix D**  
**Friant Division Contractors**

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June 2010

## **Friant Division Contractors**

**Arvin-Edison Water Storage District (AEWSD)** AEWSD is located in Kern County in the southeasterly portion of the San Joaquin Valley. AEWSD entered into its first long-term renewable contract with Bureau of Reclamation (Reclamation) in 1986 for 40,000 acre-feet (AF) of Class 1 and 311,675 AF of Class 2 water which was renewed in 2001. CVP supplies are for agricultural and municipal and industrial (M&I) purposes. AEWSD manages their CVP supply by using a groundwater reservoir underlying the district to regulate water availability and make supplies more stable. In addition, AEWSD engages in “Article 5 exchanges” of CVP water with Cross Valley (CV) Contractors. Up to 128,300 AF per year (AFY) of CV Contractor’s CVP water is delivered to AEWSD. This water is diverted from the Sacramento-San Joaquin River Delta (Delta) through the California Aqueduct (Aqueduct) and to the Cross Valley Canal (CVC). In exchange, the Friant CVP water that would have flowed down the Friant-Kern Canal (FKC) to AEWSD is diverted from the FKC by the CV Contractors. Due to the variances in allocations of Friant CVP water, these exchanges may not balance out each year. However, over the long-term the amounts of water are expected to be equal. AEWSD takes Friant CVP water from a turnout located at the terminus of the FKC. AEWSD has 45 miles of lined canals, 170 miles of pipeline, and three spreading basins to percolate water into the aquifer for storage. Gravity and pressure fed ponds are filled from surface water supplies in “wet” years, while groundwater wells are used to extract stored water in “dry” years. The safe yield of the groundwater supply is 89,900 AF. AEWSD has historically delivered an average of less than 2,000 AFY of non-CVP water to two urban customers, East Niles Community Service District and Sycamore Canyon Golf Course.

In 1997, AEWSD entered into a 25-year agreement with the Metropolitan Water District of Southern California (MWD), in which the AEWSD agreed to bank approximately 250,000 AFY of MWD’s State Water Project (SWP) Supply in the groundwater aquifer for later extraction in drought years. AEWSD has completed construction of an Intertie pipeline connecting the terminus of its canal to the Aqueduct to enhance its water banking and exchange program.

**Chowchilla Water District (CWD)** CWD’s long-term CVP contracts for 55,000 AFY of Class 1 and 160,000 AFY of Class 2 was renewed in 2001 for agricultural uses. On average, the district receives 125,000 AFY of CVP water to irrigate all of their irrigated acres. CWD maintains and operates 160 miles of unlined canals and 46 miles of pipe for agricultural water delivery. The primary way that the district gets its water is through the Madera Canal and the Fresno River.

**City of Fresno** The City of Fresno’s long-term CVP contract for 60,000 AFY Class 1 water was renewed in 2005. This water is used for M&I purposes through recharge of the groundwater in and around the city allowing them to withdraw groundwater on demand to serve municipal needs. In 2005, a new surface water treatment plant was built and water is supplied to it via the Enterprise Canal.

**City of Lindsay (Lindsay)** Lindsay is located on the east side of the San Joaquin Valley in Tulare County near the base of the Sierra foothills. In 1958, Lindsay entered into a long-term water service contract with Reclamation for 2,500 AFY of Class 1 water used for M&I

purposes which was renewed in 2005. Lindsay obtains their CVP water from the FKC at the Honolulu Street turnout. Their water treatment plant is at the same location and provides filtration, chemical additions and chlorination. An additional 50 AFY of CVP water is delivered to Lindsay through a contract with the County of Tulare. Lindsay, among others, is in a process to have their portion of the County of Tulare's contract assigned directly to them. This process is expected to be complete sometime in the 2010 Contract Year.

**City of Orange Cove** The City of Orange Cove renewed their long-term CVP contract for 1,400 AFY of Class 1 water in 2001 which is used for M&I purposes.

**County of Madera** The county of Madera renewed their long-term CVP contract for 200 AFY in 2001. This contract provides M&I water solely for Hidden Lake Estates. The district is entirely municipal and is not fully built out.

**Delano-Earlimart Irrigation District (DEID)** DEID is located in Tulare and Kern counties on the eastern side of the San Joaquin Valley, approximately 10 miles from the Sierra foothills. DEID is comprised of 56,474 acres, of which 46,581 are irrigated. DEID receives CVP water diverted from the FKC. Renewed in 2001, DEID's CVP contract is for 108,800 AF Class 1 and 74,500 AF Class 2 supplies for agricultural and M&I purposes. When available, the district also receives 215 Water (surplus CVP water) through annual contracts with Reclamation. DEID delivers surface water to approximately 400 landowners on roughly 56,500 acres of land through a completely piped system consisting of approximately 172 miles of pipeline, 527 irrigation turnouts, and 79 smaller metered deliveries to municipal and industrial water users. Currently, DEID provides 99 percent of its water supply for irrigation purposes and less than one percent (200 AFY) to industrial uses. Farmers within DEID pump groundwater from privately-owned wells when surface water supplies are insufficient to meet their irrigation needs.

**Exeter Irrigation District (EID)** EID is located in Tulare County on the east side of the San Joaquin Valley, nine miles east of the City of Visalia. In 1950, EID entered into a long-term contract with Reclamation for 10,000 AFY of Class 1 and 19,000 AFY of Class 2 water. In 1953, the Class 1 water supply was increased to 11,500 AFY for agricultural purposes by an amendment to the contract which was renewed in 2001. The City of Exeter is located within EID. However, EID serves only agricultural water. EID maintains two small balancing or regulating reservoirs with a capacity of less than one AF each. Yokohl Creek is an intermittent stream which traverses through the northern portion of the district in a northwesterly direction for approximately 2 miles.

**Fresno County Waterworks #18 (FCWW #18)** FCWW#18 renewed their long-term CVP contract for 150 AF in 2001. This water supply is used for M&I purposes.

**Fresno Irrigation District (FID)** A significant improvement in the control and management of the waters of Kings River occurred with the completion of the Pine Flat Dam project by the U.S. Army Corps of Engineers (Corps) in 1954. Although built primarily as a flood control project, Pine Flat Dam provides significant water storage and regulation of irrigation water to the 28 water right entities on Kings River including FID. FID has a contract for 11.9 percent of the 1,000,000 AF capacity of Pine Flat Reservoir. While FID is

entitled to approximately 26 percent of the average Kings River runoff, much of its entitlement occurs at times when it can be used directly for irrigation of crops without the need for regulation at Pine Flat. In a normal year, FID diverts approximately 500,000 AF of water and delivers most of that to agricultural users, although an increasing share of FID's water supply is used for groundwater recharge in the urban area. Depending upon hydrological conditions and Kings River flows, FID diverts water and allocates a proportional share of the water to its customers including the City of Fresno and Clovis. In addition to its entitlement from Kings River, FID has a long-term CVP contract for up to 75,000 AFY of Class 2 supplies used for agricultural purposes. The contract was renewed in 2001.

Between 85 percent and 90 percent of the groundwater supply can be attributed to water imported and distributed by FID. The conversion of agricultural lands to high-density urban uses in the expanding Fresno-Clovis metropolitan area has reduced the area for recharge from surface water. Because all M&I water is obtained by pumping groundwater, a local overdraft has developed in and around the urban area, and this situation has been exacerbated by the drought of the late 1980s and early 1990s. FID has combined forces with the City of Fresno, the City of Clovis, the County of Fresno, and the Fresno Metropolitan Flood Control District in a cooperative effort to develop and implement a comprehensive surface and groundwater management program. The main goal of the program involves using flood control basins for recharge during the summer when the basins are not needed to control urban storm runoff. This program also contains elements designed to protect the quality of groundwater in the area.

**Garfield Water District (GWD)** GWD is located approximately 4 miles due north of the City of Clovis, California. GWD has a long-term CVP contract for 3,500 AF of Class 1 supplies for agricultural purposes which was renewed in 2001. All water deliveries in GWD are made using piped water and the delivery amounts are metered at the end user.

**Gravelly Ford Water District (GFWD)** GFWD is located southwest of the City of Madera, California. GFWD renewed their long-term CVP contract for 14,000 AFY of Class 2 water for agricultural purposes in 2001. On average, the district receives just over 6,000 AFY of CVP water. The district receives its water through MID facilities and Cottonwood Creek, which is used as a conveyance mechanism. CVP water is used in conjunction with approximately 10,000 AF of water for four primary crops. Vines cover just over 4,000 acres of land in the district and are the primary crop. Almonds, cotton and alfalfa are also grown in the district, covering roughly 1,100 acres, 1,400 acres and 500 acres respectively. The district operates 15 miles of unlined canals and 5 miles of pipe in order to deliver water to its customers.

**International Water District (IWD)** IWD has a Class 1 CVP water service contract supply of 1,200 AFY which was renewed in 2001. This water is delivered for agricultural purposes to permanent crops, mainly citrus.

**Ivanhoe Irrigation District (IID)** IID is located in Tulare County on the east side of the San Joaquin Valley approximately 50 miles southeast of Fresno and 8 miles northeast of Visalia. IID is generally located between the St. John's River on the south and Cottonwood Creek on the north. As early as 1915 the lands began to be developed for agricultural uses.

Water supplies for irrigation in the district were from groundwater pumping, precipitation and surface diversions from runoff on the Kaweah River. IID was formed in 1948 and has acquired private surface water rights through the Wutchumna Water Company. IID owns 7.9 shares of Wutchumna Water stock equaling approximately 3,950 AF of water. In 1949, IID entered into a long-term contract with Reclamation for 7,700 AFY of Class 1 and 7,900 AFY of Class 2 water which was renewed in 2001 for agricultural purposes. On March 1, 2010, IID partially assigned of 7,400 AFY of Class 2 and 1,200 AFY of Class 1 CVP water to Kaweah Delta Water Conservation District. Their remaining CVP allocation is 6,500 AFY of Class 2 and 500 AFY of Class 1.

The district's non-CVP water supplies are diverted from the Kaweah River through the Wutchumna Ditch to the district's diversion facility and are co-mingled with the CVP supply. IID obtains its CVP water supplies through two turnouts on the FKC. The district's distribution system comprises approximately 48 miles of pipeline and three groundwater recharge areas. The three groundwater recharge areas cover approximately 15 acres and are used when surplus water is available. Approximately three miles of a portion of Cottonwood Creek is also used for recharge purposes. IID does not own or operate groundwater extraction facilities.

**Kaweah Delta Water Conservation District (KDWCD)** KDWCD was formed in 1927, under the provisions of California state law known as the Water Conservation District Act of 1927, for the purpose of conserving and storing waters of the Kaweah River and for conserving and protecting the underground waters of the Kaweah Delta. Later the Water Conservation District Act, as well as the purpose of the KDWCD, was expanded to include power generation and distribution. KDWCD is located in the south central portion of the San Joaquin Valley and lies in both Tulare and Kings Counties. It fully encompasses the growing cities of Visalia, Farmersville and Tulare. The total area of the district is about 337,000 acres with approximately 255,000 acres located in western portion of Tulare County and the balance, or about 82,000 acres, in the northeastern portion of Kings County. KDWCD is comprised of four districts that are entirely or partially within KDWCD boundary. They include: Lakeside Irrigation Water District, Kings County Water District, Corcoran Irrigation District, and Tulare Irrigation District.

District lands are primarily agricultural, although the cities of Visalia and Tulare constitute significant areas of urbanization. Farmersville is the other incorporated area. Smaller unincorporated rural communities include Goshen, Ivanhoe, Waukena, and Guernsey. Numerous public and private entities within the KDWCD's boundaries divert water from the Kaweah River and its distributaries. Nearly all of the lands served with Kaweah River water also use groundwater wells to supply irrigation water, primarily due to the erratic, relatively undependable, nature of flow on the Kaweah River. All M&I water uses within the KDWCD are supplied from groundwater. KDWCD can take delivery of CVP water from the FKC, which passes through the eastern portion of the district.

On March 1, 2010, KDWCD received a partial assignment of 7,400 AFY of Class 2 and 1,200 AFY of Class 1 CVP water from IID for agricultural purposes.

**Lewis Creek Water District (LCWD)** LCWD is located on the east side of the San Joaquin Valley in Tulare County near the base of the Sierra foothills. LCWD renewed their long-term CVP contract for 1,450 AFY of Class 1 agricultural water supply in 2005. Agricultural industry within the district is built around citrus (oranges), and twelve orange packing houses, provide the major economic base for the area.

**Lindmore Irrigation District (LID)** LID is located in Tulare County at the base of the Sierra foothills. LID was formed in 1937 and in 1948 entered into a long-term contract with Reclamation for 33,000 AFY of Class 1 and 22,000 AFY of Class 2 water which was renewed in 2001 for agricultural purposes. LID lies over the Kaweah Basin. The safe groundwater yield for LID was calculated in 1987 to be 21,000 AFY. LID operates a conjunctive use program to manage surface and groundwater supplies. LID uses groundwater at the beginning of the growing season to warm the CVP water while filling the district's pipeline system. This reduces maintenance costs and leaks in the concrete irrigation pipes due to contraction of cold water. LID obtains their CVP supplies from four turnouts on the FKC between MP 88.4 and 93.2. LID's conveyance system comprises of 123 miles of pipeline and five reservoirs. The Noel, Montgomery and Brewer reservoirs are earthen-clay lined. These reservoirs are 3, 4.5, and 6.5 AF in size and are used for overflow. In contrast, the 93.2E N and the 93.2-0.1S reservoirs are 5.5 and 2.5 AF in size respectively, and are concrete lined and used for equalizing.

**Lindsay-Strathmore Irrigation District (LSID)** LSID was formed in 1915. LSID's original imported water supply was from the Kaweah River through the district's ownership of Wutchumna Water Company stock and 39 deep wells. The supplies from the Wutchumna Water Company range from 5,000 to 14,000 AFY. LSID enters into Warren Act contracts with Reclamation to transport this water within the district using CVP facilities. The groundwater supply is limited to 18,000 AFY. In 1948, LSID entered into a long-term contract with Reclamation for 39,000 AFY of Class 1 water. In 1985, the contract amount was amended to 27,500 AFY which was renewed in 2001 and serves only agricultural water. LSID obtains their CVP water supplies from its turnout at MP 85.56 of the FKC. The district's distribution system is approximately 115 miles of pipeline and three balancing reservoirs. The Main reservoir is 80 AF and concrete lined. The High-Level reservoir is 5 AF and concrete lined and the El Mirado reservoir is a 200,000 gallon steel tank. LSID operates five groundwater wells with a normal production of 1,750 gallons per minute. These wells are not utilized if surface water is available due to the high cost of pumping.

No usable groundwater basin underlies the district. LSID lies too far to the east against the foothills to be influenced by either the Kaweah or Tule Rivers. The district does not operate recharge areas or a conjunctive use program. LSID contractually uses the conjunctive use capacity of the Tulare Irrigation District, a common stockholder in the Wutchumna Water Company, by delivering the district's Kaweah River water through the Wutchumna Ditch to the Tulare Irrigation District turnout. Tulare Irrigation District either uses this water for irrigation (in lieu recharge) or direct sinking in their groundwater recharge basins. During "dry" years, Tulare Irrigation District's farmers utilize the groundwater delivered by LSID. Tulare Irrigation District returns surface water to LSID through either the FKC or through the Kaweah River system. LSID regularly transfers water to LID, which borders LSID on the west. Approximately 2,500 AFY is transferred to LID during normal water supply years.

**Lower Tule River Irrigation District (LTRID)** LTRID's current facilities include approximately 163 miles of unlined earth canals and approximately 47 miles of river channel in Tulare County, California. Groundwater pumping was historically used to meet water demands prior to the creation of LTRID and the importation of supplemental surface water supplies. As a conjunctive use district, water supplies in LTRID include groundwater, water rights on the Tule River, and CVP water under two separate contracts. In 1951, LTRID entered into a long-term renewable contract with Reclamation for 61,200 AFY of Class 1 and 238,000 AFY of Class 2 Friant water for agricultural purposes which was renewed in 2001. In 1975, LTRID entered into a three-way contract with Reclamation and DWR to provide an additional 31,102 AFY of CVP water supply. Under the original three-way contract, CVP water was diverted from the Sacramento-San Joaquin River Delta, conveyed through SWP facilities via the California Aqueduct to the Cross Valley Canal and delivered to AEWS. Through the Cross Valley Canal Exchange Program, LTRID and AEWS 'swapped' their Delta and Friant CVP water supplies. Recently, the exchange agreement between AEWS and LTRID was terminated. LTRID may enter into similar exchange arrangements with other water districts to obtain their CVP water supplies from the Delta; however, proposed exchange arrangements under Article 5 of the long-term renewable contracts are not within the scope of this EA or approval process.

Reduction in allowable storage at Success Reservoir on the Tule River, due to dam seismic stability issues, has significantly reduced the amount of Tule River water captured to wet years that can be stored within the dam for later use during dry years. Although the reduction in storage has not yet affected LTRID's Tule River water supply (approximately 70,000 AFY), the reduction in storage has the potential to significantly impact the amount of surface water that LTRID can bring into the district. Consequently, LTRID has initiated the construction of a new intertie in order to bring additional Tule River water into the district's service area that did not receive it previously.

**Madera Irrigation District (MID)** MID renewed their long-term CVP contract for 85,000 AFY of Class 1 and 186,000 AFY of Class 2 water in 2001 for agricultural purposes. MID also has 20,000 AFY of pre-1914 water right water from the Soquel-Big Creek. The Big Creek and Soquel diversions provide an annual average supply of 10,000 and 9,700 AF respectively. The Fresno River adjudicated and appropriative average annual supply is approximately 20,000 AF and is inclusive of the Big Creek and Soquel diversions.

MID and surrounding area is within a groundwater deficient area as designated by the DWR. MID considers their recharge to be from percolation ponds located throughout the district. MID monitors the depth to static water level within the district although MID does not provide groundwater. Private landowners have wells and extract groundwater when surface water supplies are not available. Reclamation calculated the safe yield of the portion of the Madera Basin that underlies MID to be 117,000 AFY. The groundwater quality is considered to be of excellent quality as it does not exceed any of the maximum contaminant levels for secondary drinking water standards. However, in recent years the groundwater in areas near Hwy 99 and Avenue 12 has a plume of dibromochlorophenol (more commonly known as DBCP) that flows southwesterly through the basin. Studies conducted in 1993 indicated the DBCP in the groundwater had decreased significantly. The groundwater in areas surrounding

the Tri-Valley Growers olive plant (Oberti Olives) near Avenue 13 and Road 26 contains salt brine. Tri-Valley Growers are implementing remediation measures to correct this problem under the regulatory direction of the Regional Water Quality Control Board.

A portion of the city of Madera lies within the boundaries of MID. These lands are assessed on a per square-foot basis and receive groundwater recharge benefit from canals that pass through the city. MID does not provide surface water supplies to the city of Madera. MID is also working on the environmental documentation to develop a groundwater bank and store CVP water outside of their service area boundaries.

**Orange Cove Irrigation District (OCID)** OCID is located in Fresno and Tulare Counties and was formed in 1937. In 1949, OCID entered into a long-term contract with Reclamation for 31,800 AF. The contract was amended in 1989, to 39,200 AFY of Class 1 water for agricultural purposes and renewed in 2001. The district obtains their CVP water supplies from 15 diversion points on the FKC between MP 35.87 to 53.32. OCID's distribution system is 105 miles of pipeline and one regulating reservoir with a capacity of 8 AF. OCID does not supply any M&I water.

A groundwater basin is almost non-existent under OCID. The area immediately east of Smith Mountain and the area in the vicinity of Navelencia contain basin water. The majority of wells are located in this area. The safe yield has been determined to be 28,000 AFY. OCID does not operate any groundwater wells or recharge facilities due to the existing groundwater conditions. OCID provides approximately 1.4 AF per acre. Therefore, the balance of crop needs is made up from precipitation and groundwater pumping. The landowners in OCID manage the groundwater supplies through conjunctive use practices. OCID transfers unused water supplies out to other districts for storage and groundwater banking. OCID is pursuing partners for a long-term transfer program or groundwater banking program to balance water in wet and dry years.

**Porterville Irrigation District (PID)** PID is located in Tulare County and was formed in 1949. PID entered into a long-term contract with Reclamation for 16,000 AFY of Class 1 and 30,000 FY of Class 2 CVP water which was renewed in 2001 for agricultural purposes only. PID has an entitlement of 10,000 AFY of water supply from the Tule River. PID owns approximately four miles of pipeline that serves 854 acres in one Improvement District and 3.3 miles of open ditch that serves 1,266 acres in a second Improvement District. PID obtains their CVP supplies from six diversion points on the FKC.

In addition to the district-owned facilities, PID has entered into agreements with LTRID and other entities to utilize non-district owned facilities to convey the PID's water. PID also delivers its Tule River water through facilities owned by the Porter Slough Ditch Company, the Hubbs-Miner Ditch Company, the Rhodes-Fine Ditch Company and the Gilliam-McGee Ditch Company. These facilities consist of approximately 13 miles of unlined ditch within PID. The facilities belonging to these companies are operated by PID under long-term agreements with the entities. PID owns one percolation basin. In addition, PID owns a portion of the water conservation space behind Success Dam. This storage space is used to store water rights water owned by ditch companies with which PID has operating agreements.

**Saucelito Irrigation District (SID)** SID was formed in 1941. Deer Creek, an intermittent stream, crosses the district for about 5 miles from its southern boundary, but there are no district diversions off Deer Creek. Water deliveries began in 1961 for 21,200 AFY Class 1 and 32,800 AFY of Class 2 water for agricultural purposes which was renewed in 2001. SID is also a sub-contractor of Tulare County, a CV contractor, and receives 100 AFY of the County's 5,308 FY of CVP water. SID has five individual water users that have rights in Popular Irrigation Company of 9.5 shares at 55 acre feet per share from Mole Ditch. SID engages in exchanges with other CV contractors. SID obtains its CVP water supplies from four diversion points on the FKC between MP 11.64 and 107.35 and Deer Creek diversion at MP 102.69. The district's distribution system is 55 miles of pipeline with one recharge pond that covers approximately 0.5 acre. Deer Creek also provides groundwater recharge in wet years. SID is another contractor who is in the process of having their portion of the County of Tulare's contract assigned directly to them. This process is expected to be complete sometime in the 2010 Contract Year.

**Shafter-Wasco Irrigation District (SWID)** SWID was formed in 1937 and is located in Kern County about 20 miles northwest of Bakersfield. The district entered into a long-term contract with Reclamation in 1955 for 50,000 AFY of Class 1 and 39,600 AFY of Class 2 water which was renewed in 2001 for agricultural purposes only. The district does not have any other long-term surface water supplies. SWID obtains its CVP water supplies from two turnouts on the FKC at MP 134.4 and 137.2. The district's distribution system is 0.3 miles of lined canals and 117 miles of pipeline. SWID does not own or operate any water storage facilities or groundwater extraction facilities. Landowners must provide wells to meet irrigation demands when SWID does not have adequate surface water supplies available. SWID has a history of transferring small amounts of water to neighboring districts.

**Southern San Joaquin Municipal Utility District (SSJMUD)** SSJMUD was formed in 1935 and is located in Kern County, approximately 75 miles southeast of Fresno and 30 miles northwest of Bakersfield. The district entered into a long-term contract with Reclamation in 1945 for 97,000 AFY of Class 1 and 50,000 AFY of Class 2 water which was renewed in 2001 for agricultural purposes. The district does not have other long-term surface water supplies. SSJMUD obtains its CVP water supplies from nine diversion points on the FKC between MP 119.6 and 130.4. The district's distribution system is 158 miles of pipeline. SSJMUD operates 11 regulating reservoirs that provide groundwater recharge. Poso Creek and other smaller foothill drainages also provide recharge to the groundwater. The district does not own and operate groundwater extraction facilities. Landowners must rely on well water to irrigate during times when SSJMUD does not have surface water supplies available to meet irrigation demands. SSJMUD does not typically transfer water in or out.

**Stone Corral Irrigation District (SCID)** SCID was formed in 1948. In 1950, SCID entered into a long-term contract with Reclamation for 7,700 AFY of Class 1 water for agricultural purposes which was renewed in 2001. In 1991, the contract was amended to 10,000 AFY of Class 1 water. SCID receives a small amount of water through exchange arrangements with CV Contractors. This amount is 950 AFY of CVP water. The safe yield for the groundwater supply in SCID is approximately 3,200 AF. SCID obtains the CVP water from the FKC at MP 57.90, 59.33, 60.90 and 62.68. SCID's conveyance system is 27 miles of pipeline. The main crops are citrus, cotton, deciduous and subtropical fruit trees.

**Tea Pot Dome Water District (TPDWD)** TPDWD was formed in 1954 and is located in southeastern Tulare County, approximately three miles south of Porterville. TPDWD relies primarily on CVP contract water supplies for irrigation. In 1958, TPDWD entered into a long-term contract with Reclamation for 7,500 AFY of Class 1 water for agricultural purposes which was renewed in 2001. TPDWD does not have any other long-term surface water supplies. The district does not own or operate groundwater recharge or extraction facilities. Landowners pump small amounts of groundwater. TPDWD receives its CVP water supplies from the FKC. The district's distribution system is 20 miles of pipeline.

**Terra Bella Irrigation District (TBID)** TBID was formed in 1915 and is located in Tulare County about 75 miles southeast of Fresno and about eight miles south of Porterville. Deer Creek flows westerly and passes through the northern portion of the district. Fountain Spring Gulch flows in a northwest direction, traversing a portion of the district. TBID provides CVP and groundwater for domestic purposes and to the town of Terra Bella. IN 1950, TBID entered into a long-term CVP contract for 29,000 AFY of Class 1 water for agricultural and M&I purposes which was renewed in 2001. TBID receives its CVP water supplies from the FKC at MP 103.64, MP 102.69 and Deer Creek to a percolation pond. The district's distribution system is 152 miles of pipeline. The district does not have any other long-term surface water supplies.

The district's deep well system is barely adequate to support small winter demands. Historically, there were a total of 83 wells drilled over the years in the district. Currently, TBID owns and operates 10 wells. Recently, TBID has lost the use of three wells due to chemical contamination. TBID's groundwater supply has been significantly depleted. There are no significant grower or landowner wells. The district uses three regulating reservoirs during the irrigation season and for storage in the winter. Station 1 has a capacity of 0.185 million gallons, Station 2 has 0.212 million gallons and Station 3 has a 1.880 million gallon capacity. TBID has developed groundwater banking arrangements with other districts. Groundwater banking arrangements have enabled TBID, a groundwater deficient district, to produce crops during drought years. In years when surplus amounts of water are available, TBID transfers water to other districts for direct use, resale, or percolation through recharge basins. The district and LTRID have a long history of water exchanges. TBID transfers water to LTRID and, in turn, transfers water to TBID in dry years.

**Tulare Irrigation District (TID)** TID was formed in 1889 and is located in western Tulare County on the eastside of the San Joaquin Valley. TID provides only agricultural water supplies and does not service the city of Tulare. Water for Tulare is extracted from the ground and furnished through City-owned facilities. TID entered into a long-term contract with Reclamation in 1952 for 30,000 AFY of Class 1 and 141,000 AFY of Class 2 water which was renewed in 2001. The district has pre-1914 water rights on the Kaweah River for approximately 50,000 AFY of water. The district-owned Kaweah River water rights are 1) Crocker Cut on the Lower Kaweah Branch, 2) St. Johns Canal (TID) on the St. Johns Branch and 3) Crossmore Cut (Packwood Creek) on the St. Johns Branch. Water is also made available through share holdings in the following Kaweah River agencies: 1) Tulare Irrigation Company on both the Lower Kaweah Branch and the St. Johns Branch, 2) Evans Ditch Company on both the Lower Kaweah Branch and the St. Johns Branch, 3) Wutchumna Water

Company on the Kaweah River, 4) Persian Ditch Company, and 5) Consolidated Peoples Ditch Company. Groundwater recharge occurs from percolation in the canals and natural channels, and treated M&I effluent. TID has 12 groundwater recharge areas covering a total of 1,110 acres. The district does not operate extraction wells. TID has an existing agreement for LSID to store groundwater and surface water supplies. TID obtains their CVP water supplies from its turnout which is located approximately 14 miles northeast of the district's service area. The water is conveyed in the district's Main Canal. Diversions into this Main Canal include water from the Kaweah and St. John's River. The Packwood Creek diversion system begins at the terminus of the Lower Kaweah River approximately 10 miles northeast of TID. The district's distribution system includes 300 miles of unlined canals, 0.25 mile of lined canal and 30 miles of pipeline.

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*2010 WARREN ACT CONTRACT AND LICENSE FOR DELTA LANDS RECLAMATION  
DISTRICT 770*

**Appendix E**  
**Environmental Documents**

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June 2010

## Healer, Rain L

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**From:** Barnes, Amy J  
**Sent:** Monday, April 26, 2010 9:05 AM  
**To:** Healer, Rain L  
**Cc:** MPR Cultural Resources Section  
**Subject:** EA 09-177 2010 Warren Act Contract and License for RD770 (10-SCAO-208)

Tracking #10-SCAO-208

Project: EA 09-177 2010 Warren Act Contract and License for RD770

Location: Kings County

The activities associated with Reclamation executing a one-year Warren Act contract and issuing a one-year license to Reclamation District 770 (RD770) to convey non-CVP water in Reclamation facilities and use pumping facilities on Reclamation land will have no potential to affect historic properties. Reclamation proposes to execute a 12-month contract with RD770 to convey non-CVP water pumped from the Kings, St John's (Kaweah), and Tule Rivers through the FKC for diversion by Friant Division contractors and/or for discharge into the Kern River. The non-CVP water will be introduced through existing turnouts on the FKC at Milepost (MP) 29.10 for the Kings River, at MP 69.45 for the St. John's River, and at MP 95.67 for the Tule River. Transferring non-CVP water will not require modifications to the FKC. Pumping activities will involve installing, operating, and maintaining semi-permanent pumping plants used to move excess water from the Kings, St John's (Kaweah), and Tule Rivers into the FKC. The pumping plants consist of permanent pump footings and existing discharge pipes that were constructed, and are maintained, by RD770 within the FKC right-of-way. The license will allow RD770 to continue using this infrastructure to install and operate temporary portable pump when there is a need to pump water.

As the proposed action has no potential to affect historic properties pursuant to 36 CFR Part 800.3(a)(1), no additional consideration under Section 106 of the National Historic Preservation Act is required.

Thank you for the opportunity to review the proposed action. Please place a copy of this concurrence with the EA administrative record. Please also include the changes to the following EA sections.

### **3.5.1 Affected Environment**

The Central Valley Project, one of the Nation's major water conservation developments, extends from the Cascade Range in the north to the semi-arid but fertile plains along the Kern River in the south. The Friant-Kern Canal (FKC) is part of Reclamation's Friant Division of the Central Valley Project (CVP). 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. Construction of the canal began in 1945 and was completed in 1951. The FKC 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.

Reclamation is in the process of nominating the CVP to the National Register of Historic Places (NRHP). As part of the CVP, the FKC has been found eligible for inclusion in the NRHP under Criterion A for its association with irrigation and agricultural development of California.

### **3.5.2 Environmental Consequences**

#### **3.5.2.1 No Action**

Under the No Action Alternative, there are no impacts to cultural resources since there would be no change in operations and no ground disturbance. Conditions related to cultural resources would remain the same as existing conditions.

### **3.5.2.2 Proposed Action**

The proposed action is administrative in nature and is the type of activity that has no potential to affect historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1). There will be no modification of water conveyance facilities and no activities that will result in ground disturbance. Because there is no potential to affect historic properties, no cultural resources will be impacted as a result of implementing proposed action.

### **4.2 National Historic Preservation Act (16 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 project, there will be no effect on any historical, archaeological, or cultural resources and no further compliance actions are required.

Amy J. Barnes  
Archaeologist  
U.S. Bureau of Reclamation  
Mid-Pacific Region, MP-153  
2800 Cottage Way  
Sacramento, CA 95825  
916-978-5047  
[abarnes@usbr.gov](mailto:abarnes@usbr.gov)

## Healer, Rain L

---

**From:** Rivera, Patricia L  
**Sent:** Monday, April 26, 2010 8:13 AM  
**To:** Healer, Rain L  
**Subject:** RE: 2010 Short-term Warren Act Contract with RD770

Rain,

I reviewed the proposed action to enter into a 12-month contract with Delta Lands Reclamation District 770 (RD770) to utilize otherwise unused capacity in the Friant-Kern Canal (FKC) to convey Non-Central Valley Project (Non-CVP) water pumped from the Kings, St John's (a channel of the Kaweah river) and Tule Rivers from June 1, 2010 through May 31, 2011 in the FKC for diversion by Friant Division contractors and/or for discharge into the Kern River. The Non-CVP water is Pre-1914 appropriative water rights water from each of the respective rivers and would be introduced into the FKC from Milepost (MP) 29.10 for the Kings River, MP 69.45 for the St. John's River, and MP 95.67 for the Tule River. The maximum amount of Non-CVP water from the three rivers to be conveyed in the FKC between June 1, 2010 and May 31, 2011 is 250,000 AF.

Non-CVP water would be introduced only when: 1) there is excess capacity in the FKC, as determined by Reclamation in coordination with the Friant Water Authority; 2) it meets the applicable water quality standards (see Appendix A); 3) it meets the U.S. Army Corps of Engineers flood control criteria; and 4) the discharge of water into the Kern River is coordinated with Kings, St. John's (Kaweah), Tule and Kern River Watermasters as applicable. Non-CVP water would be introduced to the FKC through existing turnouts without modification to the FKC.

Once introduced into the FKC, the Non-CVP water would be conveyed for diversion on behalf of RD770 to Friant Division Contractors possessing repayment, long-term water service, or assignment contract(s) with Reclamation (see Table 2-1) and/or the remainder would be conveyed to an existing gate at the terminus of the FKC for discharge into the Kern River.

**Table 1 Friant Division Contractors**

Fresno Irrigation District	Kaweah Delta-Water Conservation District	Orange Cove Irrigation District
Fresno County Waterworks #18	Madera Irrigation District	Porterville Irrigation District
City of Orange Cove	Lewis Creek Irrigation District	Saucelito Irrigation District
Arvin-Edison Water Storage District	Garfield Water District	Shafter-Wasco Irrigation District
Delano-Earlimart Irrigation District	Lindmore Irrigation District	Southern San Joaquin Municipal Utility District
Chowchilla Water District	Gravelly Ford Water District	Stone Corral Irrigation District
County of Madera	Lindsay-Strathmore Irrigation District	Tea Pot Dome Water District
City of Fresno	International Water District	Terra Bella Irrigation District
Exeter Irrigation District	Lower Tule River Irrigation	Tulare Irrigation District

	District	
City of Lindsay	Ivanhoe Irrigation District	

Reclamation also proposes to issue a temporary license for access to Reclamation lands from June 1, 2010 through May 31, 2011. The license would allow RD770 to access federal land and erect, operate and maintain the pumps when they determine there is a need to pump. It also allows for the continued existence of the existing pump footings and other permanent infrastructure on federal lands. The pumping facilities are owned and operated by the RD770. The size and number of the pumps to be installed on the existing infrastructure and total pumping capacity at each station are listed in Table 2 below.

**Table 2 Facilities Operated by RD770 for Pumping Water into the FKC**

<b>River System</b>	<b>Discharge Pumps</b>	<b>Total Capacity (cfs)</b>
Kings River	6	600
St. Johns River	8	800
Tule River	7	700
<b>Total</b>	<b>25</b>	<b>2,100</b>

note: cfs = cubic feet per second

The proposed action does not have a potential to affect Indian Trust Assets. The nearest ITA is Santa Rosa Rancheria approximately 13 miles North of the project location.

Patricia



**United States Department of the Interior**  
**FISH AND WILDLIFE SERVICE**

Sacramento Fish and Wildlife Office  
2800 Cottage Way, Room W-2605  
Sacramento, California 95825



April 30, 2010

Document Number: 100430050058

Rain Healer  
Bureau of Reclamation  
1243 N Street  
Fresno, CA 93721

Subject: Not specified

Dear: Ms. Healer

We are sending this official species list in response to your April 30, 2010 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be July 29, 2010.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found at [www.fws.gov/sacramento/es/branches.htm](http://www.fws.gov/sacramento/es/branches.htm).

**Endangered Species Division**



**U.S. Fish & Wildlife Service**  
**Sacramento Fish & Wildlife Office**  
**Federal Endangered and Threatened Species that Occur in**  
**or may be Affected by Projects in the Counties and/or**  
**U.S.G.S. 7 1/2 Minute Quads you requested**

Document Number: 100430050058

Database Last Updated: April 29, 2010

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Quad Lists

Listed Species

Invertebrates

*Branchinecta conservatio*

Conservancy fairy shrimp (E)

*Branchinecta lynchi*

Critical habitat, vernal pool fairy shrimp (X)

vernal pool fairy shrimp (T)

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

*Lepidurus packardii*

Critical habitat, vernal pool tadpole shrimp (X)

vernal pool tadpole shrimp (E)

Fish

*Hypomesus transpacificus*

delta smelt (T)

Amphibians

*Ambystoma californiense*

California tiger salamander, central population (T)

Critical habitat, CA tiger salamander, central population (X)

*Rana draytonii*

California red-legged frog (T)

Reptiles

*Gambelia (=Crotaphytus) sila*

blunt-nosed leopard lizard (E)

*Thamnophis gigas*

giant garter snake (T)

Birds

*Gymnogyps californianus*

California condor (E)

Mammals

*Dipodomys ingens*

giant kangaroo rat (E)

*Dipodomys nitratooides exilis*

Fresno kangaroo rat (E)

*Dipodomys nitratooides nitratooides*

Tipton kangaroo rat (E)

*Vulpes macrotis mutica*

San Joaquin kit fox (E)

## Plants

*Caulanthus californicus*

California jewelflower (E)

*Chamaesyce hooveri*

Critical habitat, Hoover's spurge (X)

Hoover's spurge (T)

*Clarkia springvillensis*

Springville clarkia (T)

*Orcuttia inaequalis*

Critical habitat, San Joaquin Valley Orcutt grass (X)

San Joaquin Valley Orcutt grass (T)

*Pseudobahia peirsonii*

San Joaquin adobe sunburst (T)

*Sidalcea keckii*

Critical habitat, Keck's checker-mallow (X)

Keck's checker-mallow (=checkerbloom) (E)

*Tuctoria greenei*

Greene's tuctoria (=Orcutt grass) (E)

## Candidate Species

### Amphibians

*Rana muscosa*

mountain yellow-legged frog (C)

### Quads Containing Listed, Proposed or Candidate Species:

CAIRNS CORNER (310B)

WOODVILLE (310C)

PORTERVILLE (310D)

TULARE (311A)

TAYLOR WEIR (311C)

TIPTON (311D)

EL RICO RANCH (312C)

CORCORAN (312D)

STRATFORD (313A)

STRATFORD SE (313D)

WOODLAKE (333A)

IVANHOE (333B)

EXETER (333C)

MONSON (334A)

TRAVER (334B)

VISALIA (334D)

BURRIS PARK (335A)

LATON (335B)

RIVERDALE (336A)  
BURREL (336B)  
VANGUARD (336C)  
LEMOORE (336D)  
WAHTOKE (356B)  
REEDLEY (356C)  
SANGER (357A)  
SELMA (357D)  
PIEDRA (377C)

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## County Lists

No county species lists requested.

### Key:

- (E) *Endangered* - Listed as being in danger of extinction.
- (T) *Threatened* - Listed as likely to become endangered within the foreseeable future.
- (P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.
- Critical Habitat* - Area essential to the conservation of a species.
- (PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.
- (C) *Candidate* - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) *Critical Habitat* designated for this species

## Important Information About Your Species List

### How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

### Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

### Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our [Protocol](#) and [Recovery Permits](#) pages.

For plant surveys, we recommend using the [Guidelines for Conducting and Reporting Botanical Inventories](#). The results of your surveys should be published in any environmental documents prepared for your project.

## Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal [consultation](#) with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

## Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our [Map Room](#) page.

## Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

## Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. [More info](#)

## Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

## Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be July 29, 2010.

---

**FINAL ENVIRONMENTAL ASSESSMENT**

*2010 WARREN ACT CONTRACT AND LICENSE FOR DELTA LANDS RECLAMATION  
DISTRICT 770*

**Appendix F**

**Concurrence Letter from the U.S. Fish and Wildlife Service**

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June 2010



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Sacramento Fish and Wildlife Office  
2800 Cottage Way, Room W-2605  
Sacramento, California 95825-1846

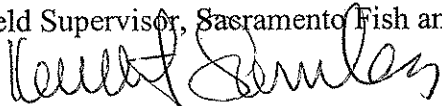


IN REPLY REFER TO:  
81420-2008-I-1373-4

**JUN 18 2010**

### Memorandum

**To:** Chief, Resources Management Division, Bureau of Reclamation, South-Central California Area Office

**From:** Assistant Field Supervisor, Sacramento Fish and Wildlife Office, Sacramento, California 

**Subject:** Request for Concurrence with Determination of Not Likely to Adversely Affect Seven Listed Species for the Bureau of Reclamation's Warren Act Contract and License to Convey Non-Project Floodflows in the Friant-Kern Canal from June 2010 through May 2011 in Kings County, California

This memorandum responds to your April 14, 2010, request for concurrence from the U.S. Fish and Wildlife Service (Service) on the above referenced project (proposed project). The Bureau of Reclamation (Reclamation) made a determination that the proposed project may affect, but is not likely to adversely affect these species. We received your request on April 15, 2010 concerning the potential adverse effects of the proposed project on the following federally-protected species: Fresno kangaroo rat (*Dipodomys nitratoides exilis*), vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardii*), California tiger salamander (*Ambystoma californiense*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (beetle), San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*), Hoover's spurge (*Chamaesyce hooveri*), or critical habitat designated for these species. This response is provided pursuant to section 7(a) of the Endangered Species Act as amended (Act) (16 U.S.C. 1531 *et seq.*), and in accordance with the regulations governing interagency consultations (50 CFR §402).

The Service has reviewed your letter, the Draft Environmental Assessment 2010 Warren Act Contract and License for Delta Lands Reclamation District 770 (RD 770) (EA-09-177) which includes information concerning valley elderberry longhorn beetle surveys on four pump stations. This information provided a biological basis sufficient for the Service to concur with Reclamation's determination that the proposed action is not likely to adversely affect Fresno kangaroo rat, vernal pool fairy shrimp, vernal pool tadpole shrimp, California tiger salamander, San Joaquin Valley Orcutt grass, Hoover's spurge and the valley elderberry longhorn beetle.

TAKE PRIDE  
IN AMERICA 

Reclamation consulted with the Service in 2009 and received concurrence that listed species were not likely to be adversely affected, and that designated critical habitat was not likely to be adversely modified by Reclamation's issuance of a License and a Warren Act contract with RD 770 covering conveyance of up to 250,000 acre feet of water. Any water available was to be pumped into the Friant-Kern Canal (FKC) from the Kings, Kaweah (including St. John's), and or Tule Rivers between March 2009 and February 2010 for delivery to turnouts on the FKC and/or at the Kern River. No water was pumped into FKC under that one-year Warren Act contract. Reclamation initiated informal discussions with the Service on the Project in December 2009 and continued in February and March through in-person and telephone communications with the Service. The Service previously commented on a Delta Lands 770 flood contracts in 2004 (Service File No. 04-I-283) in 2002 (Service File No. 02-I-2813 and in 2000 (00-I-0061) and we incorporate those comments by reference.

**Proposed Action** – Reclamation is proposing to issue a 12-month License and execute a temporary Warren Act Contract for conveyance for the Project. Under the Project, RD 770 may install and service temporary pumps in the Friant-Kern Canal (FKC) right-of- way and introduce for conveyance up to an aggregate total of 250,000 acre-feet of Non-Project Water from three different locations into the FKC and associated facilities. This Non-Project Water is Pre-1914 appropriative water rights water from each of the respective rivers and will be introduced into the FKC at milepost 29.10 for Kings River water, at milepost 69.45 for St. John's River (a channel of the Kaweah River) water and at milepost 95.67 for Tule River water. The water will be conveyed for diversion on behalf of RD 770 to Friant Division Contractors possessing repayment, long-term water service, or assignment contract and/or for discharge from the FKC to the Kern River. Only Contractors recognized at the time the Warren Act Contract is executed between Reclamation and RD 770 will have water diverted to them. These Friant Division Contractors are:

Arvin-Edison Water Storage District  
City of Fresno  
City of Orange Cove  
Delano-Earlimart Irrigation District  
Fresno County Waterworks #18  
Garfield Water District  
International Water District  
Lewis Creek Irrigation District  
Lindsay-Strathmore Irrigation District  
Madera Irrigation District  
Porterville Irrigation District  
Shafter-Wasco Irrigation District  
Stone Corral Irrigation District  
Terra Bella Irrigation District  
Kaweah-Delta Water Conservation District

Chowchilla Water District  
City of Lindsay  
County of Madera  
Exeter Irrigation District  
Fresno Irrigation District  
Gravelly Ford Water District  
Ivanhoe Irrigation District  
Lindmore Irrigation District  
Lower Tule River Irrigation District  
Orange Cove Irrigation District  
Saucelito Irrigation District  
Southern San Joaquin Municipal Utility District  
Tea Pot Dome Water District  
Tulare Irrigation District

Floodwater could threaten RD 770 lands during any water year, but based on past hydrology, flooding is likely to occur during one out of every four or five years on average. The pump

stations are located in the FKC right of way, except at the Kings River, where the station is located adjacent to the FKC right of way, and on the Alta Main Canal, immediately downstream of the Alta Irrigation District diversion on the Kings River. RD 770 will arrange with the water master from the Kings, Kaweah (including St. John's) and Tule Rivers for RD 770's water pumping from these rivers. RD 770 also will arrange with the Friant Water Authority for diversion of water to Friant Division Contractors through turnouts along the FKC and will arrange with the Friant Water Authority and Kern River watermaster for discharges to the Kern River. Because the Kern River is not a Reclamation facility, no provision is made under the Warren Act contract for the disposition of water discharged to the Kern River.

No critical habitat occurs in RD 770 although designated critical habitat exists along or near rivers from which introductions to the FKC could be made. Designated critical habitat for the Fresno kangaroo rat exists approximately 1 mile northeast of Fresno Slough. The Kaweah River (including St. John's River) meets with Cottonwood Creek and then flows through designated vernal pool critical habitat in Kings and Tulare Counties. The designated critical habitat units are for vernal pool fairy shrimp (Unit 26A), vernal pool tadpole shrimp (Unit 18 A), California tiger salamander (Unit 5), San Joaquin Valley Orcutt grass and Hoover's spurge (designated within above units). The critical habitat upstream of the confluence of Cottonwood Creek and the St. John's (Kaweah) River will not be directly affected by changes in flood flows within the St. John's River. Although some upland habitat within the critical habitat may receive reduced floodflows downstream of the FKC, the river flows in this area are typically high before pumping occurs and the area will continue to transport high flows when the pumps are operating. Designated critical habitat (unit 27A in Tulare County) for vernal pool fairy shrimp is within the floodplain of the Tule River. Diverting Non-Project water floodflows from these three rivers to the FKC will either slightly decrease flood volumes or have no affect on flows downstream of the diversion because the flows in these rivers are typically high before the pumping begins and they will continue to transport high flows when the pumps are operating.

In fall 2007, elderberry bushes were discovered in the vicinity of a pump station along the FKC. Avoidance and minimization of effects to the beetle will be managed through a variety of means. First, no plants will be disturbed. All pumping stations are accessible by existing service roads and these will be used for accessing the stations and delivering pumps. The pumps will be hoisted off transport trucks and connected to existing pipes and no ground disturbance will occur. Vehicles transporting the pumps or supplying fuel to the stations will use the existing service roads. Second, no pump will be installed at St. John's River Pump Station #2 because it is located near three clumps of elderberry shrubs, one of which contains a plant with two possible beetle exit holes (Live Oak Associates 2008). Third, at the three sites where pumps will be installed, all possible effort will be made to install pumps prior to March, or as early thereafter as possible, to minimize activity when the beetle could be active. Finally, removal of the pumps will occur after June, when the beetles are not active. Therefore, it is not likely that there will be any effect on the beetle from the installation, operation, or removal of the pumps.

**Future ESA Consultations on RD 770 contracts** – Reclamation has been in discussion with the Service regarding a long-term Warren Act contract between Reclamation and RD770 that would allow this type of activity for an extended period. We understand that Reclamation is preparing environmental documents for this action and anticipates that the environmental documents for that consultation will be completed later this year. The long term effects of reduced flood flows downstream of the FKC will be analyzed in a separate NEPA/ESA review. The regulations (50 CFR §402) interpreting and implementing sections 7(a)-7(d) of the Act, as amended, mandate that we consider the interrelated and interdependent actions (indirect effects) associated with the proposed action. In doing so, we believe the cumulative effects of multiple, one-time conveyances of non-CVP water, along with other types of water transfer actions, have the greatest potential to impact listed species by providing water to areas that were historically arid, thereby facilitating the destruction and fragmentation of habitat due to agricultural production and urban expansion. The extent of these cumulative conveyances to listed species is not fully understood and may be reduced depending on pro-active approaches by water districts to minimize disturbance to listed species. We therefore request that, prior to another renewal of an annual Warren Act Contract with RD 770, that Reclamation complete the analysis of the effects of a long term Contract before the end of this project's term (May 2011). We further request that Reclamation review our 2004 memo for this project and address the information insufficiencies that were identified. A copy is attached to this memo for your information (Attachment A). In addition, we ask that Reclamation provide the following information related to the Warren Act Contracts with RD 770: 1) monthly pumping into the FKC, 2) monthly discharges to the Kern River, 3) water amounts used by Friant and non CVP contractors from RD 770, and the relationship of the RD 770 water supply and the San Joaquin River Restoration flows.

Finally, the Service encourages Reclamation to pursue all feasible means to meet their obligations under section 7(a)(1) of the Act by helping us accomplish species recovery in the San Joaquin Valley. Specifically, Reclamation can meet their obligations by (a) reviewing applicable recovery unit criteria prior to approving water conveyance actions to, or from, recovery units, (b) incorporating recovery tasks into their actions, as appropriate; and (c) meeting in-basin fish and wildlife needs (e.g., Level 4 refuge water supplies) as required by applicable laws prior to delivering water outside of the existing CVP service areas.

If you have any questions or concerns about this consultation or the consultation process in general, please contact Susan Jones or Mike Welsh of my staff at the letterhead address or at (916) 414-6600.

cc:

Ned Gruenhagen, Bureau of Reclamation, South-Central California Area Office  
Julie Vance, California Department of Fish and Game, Fresno California  
Walter Bricker, Delta Lands Reclamation District #770

---

**FINAL ENVIRONMENTAL ASSESSMENT**

*2010 WARREN ACT CONTRACT AND LICENSE FOR DELTA LANDS RECLAMATION  
DISTRICT 770*

**Appendix G**

**Comment Letter from Arvin-Edison Water Storage District**

---

June 2010

# ARVIN-EDISON WATER STORAGE DISTRICT

20401 BEAR MOUNTAIN BOULEVARD  
MAILING ADDRESS: P.O. Box 175  
ARVIN, CALIFORNIA 93203-0175

PRESIDENT  
HOWARD R. FRICK

VICE PRESIDENT  
EDWIN A. CAMP

SECRETARY-TREASURER  
JOHN C. MOORE

ENGINEER-MANAGER  
STEVEN C. COLLUP

ASSISTANT MANAGER  
DAVID A. NIXON

STAFF ENGINEER  
JEEVAN S. MUHAM

TELEPHONE (661) 854-5573  
FAX (661) 854-5213

EMAIL [arvined@aebsd.org](mailto:arvined@aebsd.org)

May 28, 2010

**Via Email: [rhealer@usbr.gov](mailto:rhealer@usbr.gov)**  
**Via Fax: (559) 487-5194**  
**Via US Postal Services**

DIRECTORS  
DIVISION 1  
RONALD R. LEHR  
DIVISION 2  
JEFFREY G. GIUMARRA  
DIVISION 3  
HOWARD R. FRICK  
DIVISION 4  
DONALD M. JOHNSTON  
DIVISION 5  
JOHN C. MOORE  
DIVISION 6  
EDWIN A. CAMP  
DIVISION 7  
CHARLES FANUCCHI  
DIVISION 8  
DONALD VALPREDO  
DIVISION 9  
KEVIN E. PASCOE

Rain Healer, Natural Resource Specialist  
U.S. Department of the Interior  
BUREAU OF RECLAMATION  
South-Central California Area Office  
1243 N Street, SCC413  
Fresno, CA 93721-1813

**Re: 2010 Warren Act Contract and License for Delta Lands  
Reclamation District 770 (FONSI-09-177)**

Dear Rain:

Arvin-Edison Water Storage District (AEWSD or District) provides the following comments on the above-referenced draft EA and FONSI (collectively EA/FONSI) for the proposed redirection of floodwater into the Friant-Kern Canal (FKC) by Delta Lands Reclamation District 770 (RD770).

As a result of this proposed redirection of floodwater into the FKC, water quality is a major concern to AEWSD. As you may be aware, AEWSD's turnout is located at the terminus of the FKC and would be subject to this water quality, including but not limited to, the sediment (silt) load. In the past, AEWSD has been compensated for the negative water quality effects. The document specifically mentions addressing the silt accumulation to the FKC and "channels," but it should also include and be extended to contractors' and their respective facilities. Furthermore, the EA/FONSI document specifically mentions that *"RD770 will remove the silt as directed by Reclamation and the FWA, or reimburse Reclamation and the FWA for cost associated with its removal."* It should be noted that this statement (for RD770 to remove or reimburse) should also include and be extended to Friant contractors' and their respective facilities (and not just limited to Reclamation and the FWA).

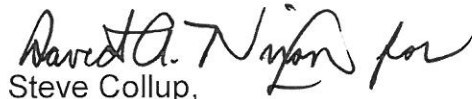
Additionally and as further explained in AEWSD's letter to Reclamation dated November 5, 2009 (regarding EA/FONSI 09-92), the deficient existing USBR Water Quality Monitoring Policy lacks sufficient protections (or standards) for irrigation suitability.

Rain Healer  
BUREAU OF RECLAMATION  
May 28, 2010  
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The cumulative impacts section (page 32) mentions *the "...non-CVP water impounded, stored, or carried would not be used otherwise than as prescribed by law."* What are the beneficial uses of this water? Or likewise, what limitations are associated with the floodwater discharge (non-CVP water), if any?

Thank you for this opportunity to provide comments.

Sincerely,

A handwritten signature in black ink, appearing to read "David A. Naylor for".

Steve Collup,  
Engineer-Manager

cc: Jeevan Muhar, Staff Engineer  
Ron Jacobsma, Friant Water Authority  
Rena Ballew, USBR