

RECLAMATION

Managing Water in the West

FINAL FINDING OF NO SIGNIFICANT IMPACT

Kern-Tulare Water District/West Kern Water District Groundwater Banking Project

EA 11-071

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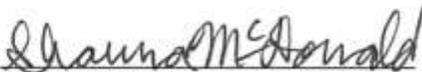
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Introduction

In accordance with section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, as amended, the South-Central California Area Office (SCCAO) of the Bureau of Reclamation (Reclamation), has determined that an environmental impact statement is not required for the Kern-Tulare Water District (KTWD)/West Kern Water District (WKWD) Groundwater Banking Project. This Finding of No Significant Impact (FONSI) is supported by Reclamation's Environmental Assessment (EA) Number 11-071, Kern-Tulare Water District/West Kern Water District Groundwater Banking Project, and is hereby incorporated by reference. Reclamation provided the public with an opportunity to comment on the Draft FONSI and Draft EA between March 11, 2013 and April 11, 2013. One comment letter was received after the comment period had closed. Changes from the draft EA that are not minor editorial changes are indicated by vertical lines in the left margin of this document.

Background

Kern-Tulare Water District is a Cross Valley (CV) contractor in the Central Valley Project (CVP). KTWD is located within Kern and Tulare counties. In order to meet the irrigation demands of its landholders, KTWD acquires water annually through purchases, transfers and exchanges, and banking agreements. Given the variability of CVP water allocations, KTWD banks as much water as possible in order to prepare for times when those CVP allocations are insufficient to meet its customer's irrigation demands.

Proposed Action

Reclamation proposes to approve a water banking project in which KTWD would bank up to 40,000 acre-feet per year (AF/y) of CVP and non-CVP water (from its own CVP contract supply, transfers and exchanges-in of CVP water, other water purchases, and flood releases) in WKWD groundwater bank. Of the volume of water banked, a portion of the CVP water delivered would carry full-cost pricing provisions of the Reclamation Reform Act (RRA). The remainder would not carry those provisions. As Reclamation allows no more than a 10 percent loss for the banking of Contract water that carries such provisions, at least 90 percent of the volume of banked water which carries those provisions would be returned to KTWD for use within its service boundary for existing customers. The maximum quantity of CVP water with full-cost pricing provisions that KTWD would have available in storage in WKWD groundwater bank for recovery is 20,000 acre-feet (AF). Transfers and exchanges from CVP contractors banked in this action would be under separate Reclamation NEPA compliance (Accelerated Water Transfer Program [AWTP]) or approvals (transfers and exchanges not under the AWTP) and are not a part of this analysis.

Water with full-cost pricing provisions of the RRA:

- Cross Valley Water
- '215' water
- South of Delta CVP water

Water without full-cost pricing provisions of the RRA:

- Class 1 and 2 water (Friant Division contractors with Repayment Contracts)
- Recovered Water Account (RWA) water
- Re-captured Friant water
- Abandoned flood water
- Kern River water
- State Water Project (SWP) water

The Proposed Action would allow KTWD to benefit from extracted water, including during years of insufficient surface water supplies, to meet its in-district demands. KTWD would recover up to 3,000 AF/y utilizing capacity in existing recovery and conveyance facilities when surface water is insufficient to meet its demands through the terms of the agreement between KTWD and WKWD which would be 25 years from the date of approval by Reclamation.

WKWD's groundwater banking facilities and KTWD's service area are entirely located within the CVP place of use. There would be no new facilities constructed as part of the Proposed Action. Details of the methods of return water are detailed below.

Deliveries to WKWD

The source of KTWD's CVP water would be from KTWD's CVP CV contract (including the Assignment from Rag Gulch Water District), purchases, and/or transfers and exchanges of CVP water from other CVP contractors whose contract supplies carry RRA full-cost pricing provisions.

The point of CVP water delivery from KTWD to WKWD is Buena Vista Turnout No. 2 on the California Aqueduct. Water can be delivered to this point of delivery in two days, depending upon the source of water:

- **Water available in the Friant-Kern Canal.** If KTWD has water available in the Friant-Kern Canal (FKC), the water will be delivered down the FKC to the Cross Valley Canal (CVC) and conveyed in the California Aqueduct. Once in the California Aqueduct, water is delivered to the groundwater banking facilities in WKWD through Buena Vista Turnout No. 2 on the California Aqueduct. Water discharged from the CVC into the California Aqueduct is measured, accounted for, and managed by the Kern County Water Agency (KCWA) and the California Department of Water Resources (DWR).
- **Water available in the California Aqueduct, San Luis Reservoir, or the Delta.** If KTWD has water available in the California Aqueduct, San Luis Reservoir, or the Delta, the water would be delivered down the California Aqueduct to the groundwater banking Facilities through Buena Vista Turnout No. 2 on the California aqueduct. Water may be conveyed under wheeling provisions with DWR for delivery of KTWD's Cross Valley contract water, or under Article 55 of the DWR water service contract with KCWA (which provides contractual terms for the conveyance and delivery of non-SWP water to the contractor's service areas through SWP facilities when sufficient capacity is available).

Return from WKWD

Water would be returned to KTWD by existing recovery wells located at the groundwater banking facilities in WKWD. Recovered water would be conveyed into the CVC. KTWD has first priority (first rights) to recover up to 2,000 AF/y and second priority to up to an additional 1,000 AF/y from WKWD. Additional recovery capacity would be as a second priority to other existing WKWD obligations.

There would be times when WKWD has surface water supplies available from sources such as SWP water or Kern River water when KTWD desires to extract groundwater. During these times, WKWD may choose to deliver surface water to KTWD, rather than extract groundwater.

To the extent that this exchange option is exercised, the point of delivery for the exchanged water would be in Pool 1 of the CVC, or other points of delivery available to WKWD and approved by KTWD. This exchange would be measured, documented, and administered by WKWD per their agreement with KTWD.

Once water is delivered to the CVC for delivery to KTWD, it would be delivered to either (1) the FKC for delivery to KTWD by Friant Water Authority (FWA) (by way of KTWD’s siphons and in accordance with KTWD’s existing Warren Act Contract with Reclamation), (2) delivered to Arvin-Edison Water Storage District in exchange for Arvin’s Friant Division CVP contract supply (via its Article 5 Exchange) or (3) delivered to a KCWA Member Unit, which in turn would deliver non-CVP water to a Friant Division contractor, which in turn would deliver its CVP contract supply water to KTWD.

Environmental Commitments

The project proponents shall implement the following environmental commitments to reduce environmental consequences associated with the Proposed Action (Table 1). Environmental consequences for resource areas assume the commitments specified would be fully implemented.

Table 1 Environmental Commitments

Resource	Protection Measure
Land Use	Water delivered to WKWD under the program for subsequent delivery to KTWD is for agricultural purposes.
	This program shall not cause any lands to be irrigated or come into production that would not otherwise, in the absence of this program, be irrigated or come into production.
	This program shall not cause modification to Reclamation facilities.
Water Resources	This program would comply with applicable Water Quality standards as determined by Reclamation, FWA, DWR, or KCWA, as appropriate.
	Groundwater monitoring and local groundwater impacts in WKWD would be the responsibility of WKWD.
	CVP water that is banked and ultimately returned to KTWD is subject to the acreage limitation provisions of the RRA and will be delivered to eligible lands within KTWD. CVP water that is not subject to acreage limitation provisions that is left behind in WKWD must stay in WKWD unless covered under a separate Reclamation approval process.
Measuring, Record Keeping, and Reporting	Each month, KTWD would report to Reclamation the amount of water delivered to or from WKWD along with its monthly water delivery report.
	All water deliveries would be metered into or out of the FKC, the CVC, and the California Aqueduct by propeller meters or other methods of measurement acceptable to the KCWA, the FWA, DWR, or Reclamation, whichever is applicable.

Reclamation's SCCAO has initiated an Environmental Commitment Program in order to implement, track and evaluate the environmental commitments developed for the Proposed Action.

Reclamation's finding that implementation of the Proposed Action will result in no significant impact to the quality of the human environment is supported by the following findings:

Findings

Water Resources

Under the Proposed Action, KTWD would be able to bank surplus surface CVP water supplies and recover the majority of those supplies from the groundwater facilities or in-lieu supplies at a later time. This would supplement KTWD's supplies (at the time of extraction), helping to meet its customers' irrigation demands. This would provide stability to future water supplies and would be considered a beneficial effect to KTWD's supplies.

Ten percent of the total portion of CVP water supplies being banked in the WKWD facilities will be left behind to recharge the aquifer or to compensate for evapotranspiration and/or operational losses. This amount would permanently recharge the aquifer by a small amount, resulting in a net benefit to the aquifer and the groundwater basin as a whole. This would result in a slight beneficial effect.

Land Use

The Proposed Action would not induce existing agricultural uses to convert to another land use or to fallow. The Proposed Action would not result in water supplies that would induce growth or land use changes as it would supply no water to customers other than agricultural users. There would be slight beneficial effects from the Proposed Action as it would contribute to maintaining land use as described in the affected environment.

Biological Resources

The effects of the Proposed Action Alternative as described would be the same as the No Action Alternative. The water bank would exist independent of KTWD's participation. As part of the Proposed Action there would be no new facilities constructed and it would not cause any lands to be irrigated or come into production that would not otherwise, in the absence of this program, be irrigated or come into production.

Reclamation has determined there would be *No Effect* to proposed or listed species or critical habitat under the Endangered Species Act of 1973, as amended (16 U.S.C. §1531 et seq.), and no take of birds protected under the Migratory Bird Treaty Act (16 U.S.C. §703 et seq.).

Cultural Resources

Reclamation determined on January 13, 2012 that the Proposed Action has no potential to cause effects to historic properties pursuant to 36 CFR Part 800.3(a)(1).

Indian Sacred Sites

No impact to Indian sacred sites would occur under the No Action Alternative as conditions would remain the same as existing conditions. The Proposed Action would not limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites. There would be no impacts to Indian sacred sites as a result of the Proposed Action.

Indian Trust Assets

No impact to ITA would occur under the No Action Alternative as conditions would remain the same as existing conditions. Reclamation determined on July 30, 2012 that the Proposed Action would not impact ITA as there are none in the Proposed Action area. The nearest ITA is Tule River Reservation approximately 54 miles NE of the project location.

Socioeconomic Resources

The proposed exchange primarily results in regulation of water supplies with virtually no changes in flow path. This will provide KTWD water supply reliability by maximizing their water supply contract with Reclamation and thus provide reliability to the farming industry and its attendant supplies and thus economics. There would be a slight beneficial effect to the local economic conditions within KTWD's service areas due to increased stability of the water supply for agriculture.

Environmental Justice

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

Air Quality

Under the Proposed Action, there would be no construction of new facilities to facilitate the conveyance of water for banking or the return of recovered water by WKWD to KTWD. Operationally, the WKWD groundwater banking facilities would require the use of electrical pumps to recover water and water could be pumped in other areas to convey the water into KTWD's existing facilities, because KTWD does not have a direct connection from WKWD's groundwater banking facilities. The electricity would be supplied through the existing infrastructure (power grid) which receives power from offsite sources. There would be no generation of power at the pumps and thus no local emissions from operations of the pumps used to extract groundwater or move said groundwater into KTWD's service area. As discussed in the Final Environmental Impact Report (FEIR) for WKWD's Groundwater Banking Project (WKWD 2010), the project would not require substantial electrical capacity and would not be responsible for a substantial amount of emissions at the power source. In addition, power plant emissions are subject to the rules and regulations of the air district in which they are located and are subject to their own review under the California Environmental Quality Act.

During times when an exchange with Arvin-Edison is not available, KTWD delivers water to the FKC, where it is pumped over the Shafter check with an electric pump capable of delivering 30 cubic feet per second. In the event that even more water is being delivered to KTWD, diesel pumps would be used to increase the delivery capability over the Shafter pump. It is a rare

occasion when diesel pumps are used (estimated at once every four years for a two month period). Emissions are far lower for the Proposed Action than the No-Action therefore the Proposed Action would have no adverse effects on Air Quality conditions.

Global Climate

Neither the Proposed Action nor the No Action alternative would involve physical changes to the environment or construction activities that could impact global climate change. Generating power plants that produce electricity to operate the electric pumps produce carbon dioxide that could potentially contribute to greenhouse gas emissions; however, water under the Proposed Action is water that would be delivered from existing facilities under either alternative and is therefore part of the existing conditions. There would be no additional impacts to global climate change as a result of the Proposed Action. Global climate change is expected to have some effect on the snow pack of the Sierra Nevada and the runoff regime. Current data are not yet clear on the hydrologic changes and how they will affect the San Joaquin Valley. CVP water allocations are made dependent on hydrologic conditions and environmental requirements. Since Reclamation operations and allocations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation's operation flexibility and therefore surface water resource changes due to climate change would be the same with or without either alternative.

Cumulative Impacts

Council of Environmental Quality regulations implementing NEPA define cumulative impacts as: the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

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

FONSI/EA-10-052 Accelerated Water Transfer Program (AWTP) for Friant Division and Cross Valley Central Valley Project Contractors, 2011-2015: Reclamation approved continuation of a five-year AWTP, that provides a streamlined process for annual transfers and/or exchanges of Friant Division CVP water between eligible Friant Division and CVC Contractors within the same geographical area who can receive CVP service from Friant Division facilities and who possess CVP interim or long-term water service contracts, or repayment contracts.

FONSI/EA-09-92 Delano-Earlimart Irrigation District (DEID) and Rosedale-Rio Bravo Water Storage District (RRBWSD) Banking Program 2010-2026: Reclamation approved DEID's delivery of its CVP and 215 Water (when available) supplies for banking outside of their service area boundary in RRBWSD. DEID will deliver up to 80,000 AF per year to RRBWSD for banking from March 2010 through February 2026. DEID will be allowed to store up to 100,000 AF maximum at any one time, and RRBWSD will return up to 10,000 AF per year to DEID upon request.

SEA-09-74 Amendment to the Storage and Exchange of Central Valley Project Water Delano-Earlimart Irrigation District to North Kern Water Storage District: The extension

of water banking through 2026 and the addition of uncontrolled spill from Millerton Reservoir (Section 215 water) to the Class 1 and Class 2 CVP water to be banked.

San Joaquin River Restoration Settlement: As part of the San Joaquin River Restoration Settlement (Settlement), the Water Management Goal aimed to reduce or avoid adverse water supply impacts to all of the Friant Division long-term contractors that may result from the Interim and Restoration Flows provided for in the Settlement. As a result, Reclamation is currently developing plans for recapture, reuse, and exchange or transfer of Interim and Restoration Flows. Specifics for these plans are currently unknown; however, one proposal involves recapturing the flows from the Delta through the California Aqueduct. The flows would then be introduced into the FKC via the CVC for ultimate delivery to Friant Division CVP contractors. Installation of permanent pump-back facilities at key check structures would allow reverse-flow in the FKC for direct delivery to the contractors upstream of the CVC introductory point.

The Proposed Action and other similar projects would not interfere with the projects listed above, nor would it hinder the normal operations of the CVP and Reclamation's obligation to deliver water to its contractors or to local fish and wildlife habitat. The FWA manages the FKC, on Reclamation's behalf, such that capacity must exist before any movement of water is scheduled under the Proposed Action. Similarly, the KCWA must determine that there is excess capacity before water involved with the Proposed Action is allowed to enter the CVC so as not to impact any stakeholders that normally receive their water supply from the CVC. Likewise, the DWR and Reclamation would make determinations that there is excess capacity before water involved with the Proposed Action is allowed to enter the California Aqueduct/San Luis Canal so as not to impact any stakeholders that normally receive their water supply from SWP and CVP Delta Exports.

Therefore, when taking into consideration other similar existing and/or future actions, the implementation of the Proposed Action would not have adverse cumulative impacts on the normal operations of the conveyance facilities involved.

Reclamation's action is the approval of banking of KTWD water in WKWD groundwater bank. The use of this water upon return to KTWD would be to maintain current land uses that are predominantly the growing of crops on existing agricultural lands. No native or previously untilled lands would be put into production. The Proposed Action would maintain existing land uses and would not contribute to cumulative changes or impacts to land uses or planning. Land use trends around the action area in recent years have resulted in urbanization of agricultural lands. This trend is typically caused by economic pressures and is likely to continue with our without these water service actions. Therefore, there would be no cumulative effects to land use as a result of the Proposed Action.

The Proposed Action itself has no adverse impacts on air quality because well pumps are operated primarily using electric motors and the amount of well pumpage would be approximately equal to that under the No Action Alternative (although at different times and places in the same air basin). Not all pumping for this Proposed Action and similar actions could be done at the same time due to limitations of the pumps. Therefore, cumulative impact emissions from the power plants serving electricity to the pumps for these projects would still

below the de minimis thresholds. It is likely that the Proposed Action, when combined with other similar actions within the San Joaquin Valley air basin, would still be well below the de minimis thresholds and would therefore have no cumulative adverse impacts.

Under the Proposed Action, the ability to manage varied water resources could help maintain agricultural production and local employment. Since there is no construction or other impacts that could disproportionately affect minority or disadvantaged populations, there are no cumulative adverse impacts involving socioeconomic or environmental justice interests. Since there is no construction or other ground disturbing actions there are no cumulative adverse impacts involving ITAs or Indian sacred sites.

As in the past, hydrological conditions and other factors are likely to result in fluctuating water supplies which drives requests for water service actions such as water banking. Water districts aim to provide water to their customers based on available water supplies and timing, all while attempting to minimize costs. Farmers irrigate and grow crops based on these conditions and factors, and a myriad of water service actions are approved and executed each year to facilitate water needs. Each water service transaction involving Reclamation undergoes environmental review prior to approval. Due to the general nature of water banking, the project would have no adverse impacts that are individually limited, but cumulatively considerable.