

RECLAMATION

Managing Water in the West

**Draft Finding of No Significant Impact
FONSI 10-092**

Tranquillity Irrigation District/San Luis Water District Groundwater Transfer/Exchange Program– 2011 through 2013

Recommended by:

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Introduction

In accordance with section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, as amended, the South-Central California Area Office of the Bureau of Reclamation (Reclamation) has determined that an Environmental Impact Statement is not required for the Tranquillity Irrigation District/San Luis Water District Groundwater Transfer/Exchange Program–2011 through 2013.

This Draft Finding of No Significant Impact (FONSI) has been completed to document the findings of Environmental Assessment (EA) 10-092 that was prepared to examine the potential direct, indirect and cumulative impacts of the Transfer/Exchange Program; specifically, those areas within the service area boundaries of the Tranquillity Irrigation District (TQID) and San Luis Water District (SLWD). Approval of the proposed action would allow continuance of the 2009-2011 Tranquillity Irrigation District/San Luis Water District Groundwater Exchange Program previously analyzed in EA 09-99.

The total proposed exchange in the 2009-2011 Program allowed up to 14,000 acre-feet (af) where as the 2011-2012 Program would allow up-to to 15,000 af but not to exceed 7,500 af in any water year. Actual transfers will be determined by water needs. Under the previous 2009-2011 Program a total of 8,420 af was transferred. The word “Transfer” has been added to the title since EA 09-99 to reflect the action between TQID and SLWD. The word “Exchange” reflects the action between TQID and the Bureau of Reclamation (Reclamation).

Reclamation is providing the public with an opportunity to comment on the draft EA/FONSI from February 15, 2011 to March 1, 2011.

Background

California has experienced drought conditions in recent years that has reduced water supplies to many Central Valley Project (CVP) contractors. South-of-Delta (SOD) CVP water service contractors experienced reduced water supply allocations in recent years due to hydrologic conditions and regulatory requirements. The hydrologic conditions for 2011 are still evolving and although conditions improved in 2010, it is likely that SOD CVP contractors will still need to supplement supplies to meet demands because of past dry years and overall CVP operational constraints. SOD CVP contractors thus need to identify additional supplies to avoid shortages for their customers. One of these contractors, the San Luis Water District (SLWD) is pursuing water management options to help meet their water demands.

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

Water Resources

This proposed Transfer/Exchange involving CVP water would not alter the flow regime of natural waterways or natural watercourses such as the Delta, streams, creeks, ponds, pools, wetlands, etc., so as to avoid detrimental effects on fish or wildlife or their habitats. No native or untilled land (fallow for 3 years or more) will be cultivated with CVP water involved in these actions. No new construction or modification of existing facilities is to occur in order to complete the proposed Transfer/Exchange.

There would be no direct, indirect or cumulative adverse impacts to water resources with compliance to Environmental Mitigation and Monitoring Commitments (Appendix A). This proposed Transfer/Exchange involving CVP water would comply with all applicable federal, state and local laws, regulations, permits, guidelines and policies.

Geological Resources

Elastic and recoverable subsidence occurs as long as water levels remain above historic lows. A review of water levels in the area of TQID for the 1963-1967 low was compared with water levels for April 2009. It was found that water levels for the most recently available data are 70 to 100 feet above historic lows. In this region during the 1976-1977 and 1987-1992 droughts, water levels fell about 80 feet per year. Pumping for the current year would cause a water level fall which would be above the historic low in the vicinity of the wells involved in the proposed Transfer/Exchange. Subsidence that occurs from pumping these wells this season would therefore be elastic and recoverable upon the return of water levels.

TQID would monitor groundwater levels in the TQID Well Field and monitoring wells in the area on a monthly basis which will prevent direct, indirect or cumulative impacts to geological resources including the aquifer (Appendix A).

Land Use

The proposed Transfer/Exchange would provide additional surface water to allow SLWD agricultural lands to remain in production, and to transfer groundwater for future delivery to support existing farmlands, minimize the potential for fallowing agricultural land and avoid additional demand on Delta supplies. No new agricultural development is expected under the proposed Transfer/Exchange. The conveyance of the groundwater through CVP facilities would not contribute to changes in land use. The proposed Transfer/Exchange would generate no new housing and would result in no new permanent population growth that would exceed official regional or local population projections in the TQID or SLWD service areas. The approval to be covered under this FONSI would be for 2011-2013 and would be limited to use of this groundwater resulting in no land use changes. As such there would be no direct, indirect or cumulative impacts to land use.

Biological Resources

Although the Proposed Action would exchange water through the Mendota Pool, water levels and flow of the Mendota Pool would not change and therefore the proposed Transfer/Exchange would not have an adverse impact on the existing biological habitats. The proposed Transfer/Exchange would not involve the conversion of any land and would therefore not change the land use patterns of the cultivated or fallowed fields that do have some value to listed species or birds protected by the Migratory Bird Treaty Act. Since no natural stream course alteration would occur, there would be no effects on listed fish species. As such there would be no direct, indirect or cumulative impacts to biological resources.

Cultural Resources

Exchanging water as described in the proposed Transfer/Exchange would not result in impacts to archeological or cultural resources as no land disturbance would occur. Because the known sites and features within the area of potential effect would not be directly impacted by the proposed Transfer/Exchange, there is no potential for cumulative impacts.

Indian Trust Assets

The proposed Transfer/Exchange does not have a potential to have direct, indirect or cumulative impact on Indian Trust Assets.

Socioeconomic Resources

The proposed Transfer/Exchange would not interfere with CVP priorities or operations and would result in temporarily increased water supply reliability for SLWD. The proposed Transfer/Exchange would have a positive socioeconomic impact to the SLWD area in that agricultural land would be maintained in production and the associated farm service industries would also be supported. The proposed Transfer/Exchange would allow for some additional portion of continued water deliveries to SLWD and would help to maintain the stability of the agricultural market and economic vitality for this part of the San Joaquin Valley.

Environmental Justice

Without the proposed Transfer/Exchange water, some field crops may not be planted or may become stressed. The proposed Transfer/Exchange would positively affect low income and minority populations because these populations include farm workers. Therefore the proposed Transfer/Exchange would not disproportionately impact minority and disadvantaged populations.

Air Quality

Of the nine wells that would likely participate in the Proposed Action, none are powered with internal combustion engines. As such, there would be no direct, indirect or cumulative impacts to air quality.

Global Climate Change

As stated in the Air Quality section, of the nine wells that would likely participate in the proposed Transfer/Exchange, none are powered with internal combustion engines. Any greenhouse gases emitted in the generation of electricity for the pumps would be below the current Federal de minimis levels.

Appendix A - Environmental Mitigation and Monitoring Commitments

Resource	Discussion	Measures	Scheduling and Responsible Agency
Surface Water	<p>Pursuant to TQID historic practice regarding water quality associated with pumping groundwater for proposed Transfer/Exchange in the Mendota Pool, the quality of such pumped groundwater would be analyzed at the location where waters would be introduced into the Fresno Slough.</p> <p>Water quality at these points would be analyzed for all constituents included in the "Ag Suitability" water quality suite. Electrical conductivity (EC) would be monitored continuously during the proposed Transfer/Exchange program deliveries via TQID EC probes and telemetry. EC data would be available in real time at the TQID offices. Water quality would at all times comply with water quality standards established for pumped groundwater entering the Mendota Pool. Testing would occur prior to the beginning of pumping for purposes of providing water for this transfer/proposed Transfer/Exchange for each irrigation season.</p>	<p>Reclamation would require that water pumped and delivered under the proposed Transfer/Exchange meet minimum water quality standards for total dissolved solids (TDS), pH, and selenium (see below). To achieve this end, the following water quality requirements would be imposed:</p> <ul style="list-style-type: none"> • Groundwater from the TQID wells would not be introduced into Fresno Slough (backwaters of the Mendota Pool) when the EC measured by the continuous EC recorders at the intake of the Firebaugh Intake Canal, the intake of the Main Canal, or the intake of the Columbia Canal exceeds the EC of the inflow to the Mendota Pool from the DMC by more than 90 µS/m for three days. • If EC limitations are exceeded by pumping TQID wells, groundwater delivery to the Fresno Slough would be suspended and not resumed until the EC at the affected canal intake is no more than 30 µS/m above the EC of the inflows to the Mendota Pool from the DMC for three days. • TQID would test weekly for the following constituents at the locations where water would be diverted and spilled into the Fresno Slough. The groundwater pump-in quality at those locations would not exceed the limits specified below: <ul style="list-style-type: none"> ○ TDS – 1,200 ppm ○ pH – between 6.0 and 9.0 ○ Selenium – 2.0 µg/L 	<p>Each year, prior to beginning of pumping for the purposes of the proposed Transfer/Exchange program.</p>
Ground water	<p>Monitoring would occur to prevent groundwater levels from reaching what are believed to be historic low levels so as to insure that there would not be any inelastic subsidence in the area resulting from the extended use of the TQID Well Field by TQID for purposes of the transfer/proposed Transfer/Exchange . The historic low water levels in the confined aquifer in this area are believed to be at approximately 30 feet below mean sea level (msl). Current water levels are at approximately 40 feet above msl. The use of an average of measured groundwater levels is only valid if all of the wells monitored are perforated solely in the lower, confined aquifer. If groundwater data from a shallow well is used, the average would be mistaken as being higher, and pumping may continue under conditions in which it would otherwise be suspended.</p>	<p>The proposed program of groundwater extraction and proposed Transfer/Exchange would be stopped if resulting groundwater levels in monitor wells appear to be within 5 feet of the historic low levels.</p>	<p>TQID would monitor groundwater levels in the TQID Well Field and monitoring wells in the area on a monthly basis.</p>