

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

MID-PACIFIC REGION

ADDENDUM TO THE FINAL ENVIRONMENTAL ASSESSMENT

**Recirculation of Recaptured Water Year 2010 San
Joaquin River Restoration Program Interim Flows**

Background

The Recirculation of Recaptured Water Year 2010 San Joaquin River Restoration Program (SJRRP) Interim Flows Project developed and implemented a plan to recirculate, recapture, reuse, exchange, or transfer Interim Flows to avoid impacts to the Friant Division contractors from the release of water from Friant Dam. The project implemented a plan to recirculate up to 60,000 acre-feet (AF) of Interim Flows stored in San Luis Reservoir (SLR). The transfers and exchanges that occurred were through several mechanisms including Federal, State, and Local Facilities. A total quantity of 42,551AF has been recirculated to date.

Reclamation posted the Draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for public review and comment via a press release and Reclamation's web site. The public review period began on June 28, 2010 and ended July 16, 2010. Reclamation reviewed and responded to comments as part of the Final EA and signed the FONSI on July 22, 2010. These documents were posted to Reclamation's public web page on the same day.

Purpose of Addendum

This Addendum to the Final EA includes additional information included within the State Water Resources Control Board Water Rights Order (WY 2011 Order), WR 2010-0029-DWR, issued on September 30, 2010 and the revised Order issued on October 21, 2010. The original Water Rights Order (WY 2011 Order), which spans the SJRRP Water Year 2010, from October 1, 2009 to September 30, 2010 stated in Condition #2 that *"Any San Joaquin River water temporarily stored or routed through San Luis Reservoir shall not be delivered to south-of-Delta contractors other than Friant Division Contractors."* The most recent WY 2011 Order further elaborates on the ability for transfers and exchanges to occur, stating in Condition #2 that *"Any San Joaquin River water temporarily stored or routed through San Luis Reservoir shall not be delivered to south-of-Delta contractors other than Friant Division Contractors. The water need not be directly delivered, but can be made available through transfers and exchanges. Reclamation shall document that it has taken all practicable measures to provide contract water to the Friant Division Contractors, while complying with all other conditions of this Order."* As the SJRRP water year spans from October 1st through September 30th, and as a typical Friant Division Contractor's contract water year is from March through February, the WY 2011 Order is applicable to recirculation actions resulting from the recapture of Interim Flows between October 1, 2010 and December 3, 2010. As a result, this Addendum will focus on an expanded area for water transfers to

occur, as applicable in Condition #2 of the WY 2011 Order. Further, this Addendum adds clarification to the timing of recirculation, to include recirculation in relation to the contract water year.

Updated Description of Proposed Action

Due to the inclusion of Condition #2 of the WY 2011 Order, water may be made available through transfers and exchanges and need not be directly delivered to the Friant Division. Some Friant contractors, as outlined in the table below, find that their share of water present within SLR may be put to beneficial use within the San Luis Water District (SLWD) via transfers and exchanges. Therefore, the transfer of up to 5,000 AF of recirculation water to SLWD will occur prior to September 30, 2011. 3,060 AF of this water will be transferred as follows and the remaining 1,940 AF, if transferred, would be distributed among those contractors listed below:

Friant Division Contractor	Amount of Water Transfer (AF)
Delano-Earlimart Irrigation District	499
Fresno Irrigation District	502
Madera Irrigation District	1,246
Porterville Irrigation District	201
Saucelito Irrigation District	220
Shafter-Wasco Irrigation District	265
Exeter Irrigation District	127
Total:	3,060 AF

Any transfers to SLWD would utilize the Delta-Mendota Canal or the California Aqueduct for conveyance, both of which have been analyzed in the Final EA. Water transferred to SLWD will not exceed the 60,000 AF total already addressed in Final EA. The transfer would not increase or decrease existing CVP or SWP allocations. Water moved through this process would not require additional diversions and would not impact the overall existing operation of the water districts or their facilities. As outlined in the resource area discussions below, no new or significant impacts will occur as a result of this additional information.

Additionally, Arvin-Edison Water Storage District (AEWSD), Tulare Irrigation District, and Lower Tule River Irrigation District (LTRID) will take delivery of 2,235 AF, 945 AF, and 1,594 AF, respectively, of water recaptured and ready for recirculation in SLR. This will not require additional environmental analysis as 1) this is within the 60,000 AF maximum analyzed in the Draft and Final EA; 2) the water will move through conveyance mechanisms already assessed in the Final EA; 3) The water will be delivered to districts already assessed in the Final EA; and 4) the delivery of this water will not exceed existing Friant Class 2 contract allocations.

Additional clarification and correction is hereby provided to the project description to state that the Final EA shall mimic the timing of the discretionary action of Reclamation, which is the contract action for the water deliveries, transfers, or exchanges of recirculation water. This timeframe is from March 2010 through February 2011, and water may be rescheduled into contract water year 2011.

The Proposed Action, as described below, includes activities for delivery, transfer, and exchange of water already analyzed in the Final EA as well as the addition of the transfer of Friant water to SLWD. An analysis of environmental consequences, specific to the addition of SLWD, is as follows:

Water Resources

Affected Environment

SLWD is located on the western side of the San Joaquin Valley near the town of Los Banos and within Merced and Fresno Counties. SLWD was formed in 1951 and consists of over 66,000 acres. SLWD's current distribution system consists of 52 miles of pipelines, 10 miles of lined canals, and 7.5 miles of unlined canals. On February 25, 1959, SLWD entered into a long-term contract (Contract 14-06-200-7563) with Reclamation for 93,300 AF of CVP supply from the DMC (Reclamation 1959). This contract was superseded by a contract executed on June 19, 1974 (Contract 14-06-200-7773A) for a maximum of 125,080 AF of CVP supply from the DMC and San Luis Canal which was further amended on January 13, 1986. This contract expired December 31, 2008. An interim renewal contract (Contract 14-06-200-8033A-IR1) was issued in 2008 and remains in effect until February 28, 2011 (Reclamation 2007). The comment period for the *San Luis Water District's and Panoche Water District's Water Service Interim Renewal Contracts 2011-2013 Environmental Assessment* ended on December 14, 2010. It is expected that the Final Environmental Assessment and FONSI for this project will occur on or prior to February 28, 2011, which will continue to allow 125,080 AF of CVP water to be delivered to SLWD.

CVP water is SLWD's only long-term water supply. The district does not own any groundwater wells and has no long-term contracts for surface water or groundwater supplies. There are 20 privately owned and operated groundwater wells that provide water to 6,000 acres in the Direct Service Area. The vast majority of the SLWD's water users do not have meaningful access to groundwater that can be used for irrigation, and therefore, supplementation of the CVP supply is nominal.

Although water deliveries by the SLWD historically have been almost exclusively used for agricultural use, substantial development in and around the cities of Los Banos and Santa Nella have resulted in a shift of some water supplies to M&I use. The SLWD currently supplies approximately 800 AF per year (AFY) as a wholesaler and not to end uses. M&I use demands are expected to increase.

Groundwater Resources

The San Joaquin River Hydrologic Region covers approximately 9.7 million acres (15,200 square miles) and includes all of Calaveras, Tuolumne, Mariposa, Madera, San Joaquin, and Stanislaus counties, most of Merced and Amador counties, and parts of Alpine, Fresno, Alameda, Contra Costa, Sacramento, El Dorado, and San Benito counties (DWR 2003). Tulare Lake Hydrologic Region covers approximately 10.9 million acres (17,000 square miles) and includes all of Kings and Tulare Counties and most of Fresno and Kern Counties (DWR 2003). SLWD falls within these two hydrologic regions.

The California Department of Water Resources (DWR) estimates an annual overdraft of approximately 205,000 AF of groundwater within the San Joaquin Valley. This over-drafting of groundwater has caused ground subsidence since the mid-1920s. By 1970, 5,200 square miles of the valley were affected and maximum subsidence exceeded 28 feet in an area west of Mendota. Much of this area is now served by the CVP's San Luis Unit (DWR 2003; Reclamation 2005).

SLWD has an approved groundwater management plan.

Environmental Consequences

Transferring water to SLWD would not increase or decrease existing CVP or SWP allocations. Water moved through this process would not require additional diversions and would not impact the overall existing operation of the water districts or their facilities.

Land Use

Affected Environment

The SLWD is located near Los Banos within Merced and Fresno Counties. The district's current size is approximately 66,458 acres. The southern section of the district located in Fresno County is primarily agricultural. The land is planted with either row crops, including cotton and melons, or permanent crops, primarily almonds. In recent years, some parcels in this area of the district have not been farmed because they are of marginal quality or have high water costs or drainage problems.

The district's current population is approximately 700, with most individuals residing in the community of Santa Nella, located in the extreme northern portion of the district. Although water deliveries by the SLWD historically have been almost exclusively used for agriculture, substantial development in and around the cities of Los Banos and Santa Nella have resulted in a shift of some water supplies to M&I use.

Environmental Consequences

Transferring water as described in the Proposed Action would not result in any land conversion and no land fallowing or habitat restoration would be deferred as a result of the transfer. No lands would be annexed into any existing service areas to specifically use the transferred water. Based on existing land use patterns in the area, the majority of land use is agricultural and irrigation water is provided mainly for agricultural purposes. This is not expected to change as a result of the transfer of water from Friant contractors to SLWD. Because the water being transferred will be limited to supplies already in SLR and the use will be limited to delivery prior to September 30, 2011, this would not provide a long-term or reliable supply to support long-term land use changes. The transfer represents the optimization of the use of water already available from the SJRRP recapture. The action will not impact land use.

Biological Resources

Affected Environment

By the mid-1940s, most of the valley's native habitat had been altered by man, and as a result, was severely degraded or destroyed. It has been estimated that more than 85 percent of the valley's wetlands had been lost by 1939 (Dahl and Johnson 1991). When the CVP began operations, over 30 percent of all natural habitats in the Central Valley and surrounding foothills had been converted to urban and agricultural land use (Reclamation 1999). Prior to widespread agriculture, land within the Proposed Action area provided habitat for a variety of plants and animals. With the advent of irrigated agriculture and urban development over the last 100 years, many species have become threatened and endangered because of habitat loss. Of the approximately 5.6 million acres of valley grasslands and San Joaquin saltbrush scrub, the primary natural habitats across the valley, less than 10 percent remains today. Much of the remaining habitat consists of isolated fragments supporting small, highly vulnerable populations (Reclamation 1999). The Proposed Action area is dominated by agricultural habitat that includes field crops, orchards, and pasture. The vegetation is primarily crops and frequently includes weedy non-native annual and biennial plants.

Environmental Consequences

The Proposed Action proposes to utilize existing facilities to transfer water that is present in SLR. As a result, there will be no disturbance of ecologically sensitive lands due to construction activities. As this is a short-term transfer and usage of water from SLR, no land use changes will occur due to increases or decreases in cultivation activities or fallowing of fields. As no land use changes or additional disturbance would occur as a result of the action, no habitat changes would occur that could potentially affect species covered under the Migratory Bird Treaty Act (MBTA). Because there will be no disturbance or land use changes associated with this action, there will be no impact to listed species, critical habitats, or species listed under MBTA.

Cultural Resources

Affected Environment

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

Environmental Consequences

Transferring water as described in the Proposed Action is an undertaking as described in Section 301(7) of the NHPA, initiating Section 106 of the NHPA and its implementing regulations at 36 CFR Part 800. All transfers would occur through existing facilities and water would be provided within existing service area boundaries to areas that currently use CVP water. The action would not result in modification of any existing facilities, construction of new facilities, change in land use, or growth. This action has no potential to cause effect to historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1). As a result, the proposed undertaking would result in no impacts to cultural resources.

Indian Trust Assets

Affected Environment

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

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

Environmental Consequences

Approval of transfers between districts would not involve any construction and would utilize existing conveyance facilities. The Proposed Action is outside of the nearest ITA, which is located at Santa Rosa

Rancheria, approximately 7 miles north of the project. Therefore, activities associated with the transfer of water to SLWD would not impact ITA.

Socioeconomic Resources

Affected Environment

The service areas within SLWD are rural and agricultural. The agricultural industry significantly contributes to the overall economic stability of the San Joaquin Valley. There are many small communities where farm workers live, and many small businesses that support the agricultural industry. These communities and businesses rely on the efficient and cost-effective utilization and supply of water to the surrounding agricultural lands to sustain the agriculturally-based economy. Depending upon the variable hydrologic and economic conditions, water transfers and exchanges can be prompted. Economic variances in the community may include fluctuating agricultural prices, insect infestation, changing hydrologic conditions, increased fuel and power costs. The cost and availability of water has historically had a direct secondary economic impact on the communities of the area as it can drive the type of crop grown or contribute to the potential fallowing of land.

Environmental Consequences

Transferring water as described in the Proposed Action would assist in sustaining existing agricultural production and allow for water deliveries to be made within the existing districts. This would help maintain the stability of the agricultural market and economical vitality for the San Joaquin Valley to a certain degree.

The transfer is a temporary action and would not result in long-term increases in water supplies that would encourage urbanization, construction or other land-disturbing activities. The Proposed Action will not have an impact on socioeconomic resources.

Environmental Justice

Affected Environment

Many cities and towns in the San Joaquin Valley are steeped in the agricultural community, and include high percentages of minority and/or low-income populations. Some of these communities support centers of migrant laborers, and populations tend to increase during the late summer harvest. The San Joaquin Valley's migrant workers are typically of Hispanic origin, from Mexico and Central America. Migrant workers depend exclusively on seasonal agricultural practices to provide sufficient income to support themselves and their families. The agricultural industry and agricultural businesses are the main industry in the Proposed Action area, and thus, are the main industries to provide employment opportunities for minority and/or disadvantaged populations.

Environmental Consequences

The Proposed Action would not disproportionately impact economically disadvantaged or minority populations. Water transfers, which would allow water in SLR to be utilized, would allow the continued irrigation of agricultural lands in the San Joaquin Valley. This would result in neither employment gain nor loss, but rather in sustained job rates and would not create an overall change in the area. The transfer of water to SLWD would reduce dislocation and promote continued employment within the affected environment and would not disproportionately impact economically disadvantaged or minority populations. Agricultural unemployment rates in the Fresno, Tulare, Kings, and Kern Counties suggest that any actions that maintain seasonal jobs should be considered beneficial

Air Quality

Affected Environment

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

Environmental Consequences

During the transfer of water to SLWD, movement of water between districts and exchange partners would be done via gravity flow and/or pumped using electric motors which have no emissions. The air quality emissions from electrical power have been considered in environmental documentation for the generating power plant. There are no emissions from electrical motors and therefore a conformity analysis is not required under the CAA and there would be no impact on air quality. The action would not involve any construction or land disturbing activities that could lead to fugitive dust emissions and/or exhaust emissions associated with the operations of heavy machinery.

Global Climate Change

Affected Environment

Climate change refers to significant change in measures of climate that last for decades or longer. Many environmental and anthropogenic factors can contribute to climate change, including the burning of fossil fuels, deforestation, changes in ocean currents, urbanization, etc.). Carbon dioxide, which is produced when fossil fuels are burned, is a greenhouse gas (GHG) that effectively traps heat in the lower atmosphere. Some carbon dioxide is liberated naturally, but this may be augmented greatly through human activities.

Increases in air temperature may lead to changes in precipitation patterns, runoff timing and volume, sea level rise, and changes in the amount of irrigation water needed due to modified evapotranspiration rates. Approximately 20 million Californians rely on the CVP and SWP for water deliveries. Global shifts related to climate change may lead to impacts to California's water resources and project operations.

Environmental Consequences

GHG generated by a project is expected to be extremely small compared to sources contributing to potential climate change since the transfer of water would be conveyed mostly via gravity and little, if any, additional pumping from electric motors would be required. While any increase in GHG emissions would add to the global inventory of gases that would contribute to global climate change, the transfer of water under the Proposed Action would result in potentially minimal increases in GHG emissions and a net increase in GHG emissions among the pool of GHG would not be detectable.

Cumulative Impacts

Contract execution for the transfer and exchange of water within the CVP from the recapture of water from the SJRRP would not have any controversial or highly uncertain effects, or involve unique or unknown environmental risks. The action would not trigger other water service actions and does not contribute to cumulative effects to physical resources when added to other water service actions. The canals, distribution, rivers, creeks, and conveyance facilities in the San Joaquin Valley associated with actions are managed primarily for agricultural supplies. The Proposed Action would not interfere with the deliveries, operations, or cause substantial adverse changes to the conveyance facilities. The proposed

transfers, when added to other actions, do not contribute to significant increases or decreases in environmental conditions.