

RECLAMATION

Managing Water in the West

Environmental Assessment

Transfer of up to 1,500 Acre-Feet of Replacement Water from Patterson Irrigation District to Westlands Water District

EA-13-073



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

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Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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Section 1 Introduction

The Bureau of Reclamation (Reclamation) provided the public with an opportunity to comment on the draft Environmental Assessment (EA) and draft Finding of No Significant Impact between January 22, 2014 and February 5, 2014. No comments were received during the comment period. Changes from the draft EA that are not minor editorial changes are indicated by vertical lines in the left margin of this document.

1.1 Background

As a result of a settlement reached between Patterson Irrigation District (PID) and the Bureau of Reclamation (Reclamation) for the construction of Friant Dam and partial obstruction of natural flow from the San Joaquin River, PID receives 6,000 acre-feet per year (AF/y) of what is known as Replacement Water from Reclamation via the Delta-Mendota Canal (DMC). In October 2008, PID approached Reclamation with a request to transfer 2,200 AF of this Replacement Water to Del Puerto Water District (DPWD) during the 2009 contract water year, which runs from March 1st through February 28th. Reclamation issued a Finding of No Significant Impact (FONSI) for the transfer, entitled *Patterson Irrigation District One-Time Delivery of Replacement Water to Del Puerto Water District* (FONSI-08-094), on August 7, 2009.

In 2009, PID determined that it could transfer 1,500 AF of additional water and still be able to meet the in-district demand of its water users. In September 2009, PID requested that Reclamation approve the district's proposal to transfer this additional Replacement Water to DPWD. Reclamation analyzed this request in Environmental Assessment (EA)-09-141 and a FONSI was issued on November 24, 2009.

In 2012, PID approached Reclamation with a third proposal, to transfer an additional 500 AF of water to DPWD in water year 2012. However, upon review of PID's water account balance, Reclamation determined that only 442 AF of PID's Replacement Water was available to be transferred. The proposed transfer amount was reduced accordingly.

In 2013, PID approached Reclamation with a fourth proposal, to transfer 1,500 AF of Replacement Water to Westlands Water District (WWD) in water year 2013. WWD is requesting the Replacement Water transfer from January 1, 2014 through February 28, 2014. The transferred water would supplement a deficient Central Valley Project (CVP) water supply and would be used for irrigation on existing lands in WWD that currently receive CVP water.

1.2 Need for the Proposed Action

WWD has a need for additional water supplies to sustain agricultural crops, and PID has offered to make a portion of its share available. The purpose of Reclamation's action is to facilitate the proposed transfer.

1.3 Scope

This EA was prepared to examine the impacts of approving a one-time transfer of up to 1,500 AF of PID's Replacement Water to WWD (Figure 1-1). The transfer would involve the DMC, O'Neill Forebay, the San Luis Reservoir and the San Luis and Coalinga Canals. It would be completed no later than February 28, 2014. PID is located entirely within Stanislaus County while WWD is located in western Fresno and Kings County.

1.4 Resources of Potential Concern

This EA analyzed the affected environment of the Proposed Action and No Action Alternative in order to determine the potential direct, indirect, and cumulative impacts to the following resources:

- Cultural Resources
- Indian Sacred Sites
- Indian Trust Assets
- Air Quality
- Global Climate
- Water Resources
- Land Use
- Biological Resources
- Socioeconomic Resources
- Environmental Justice

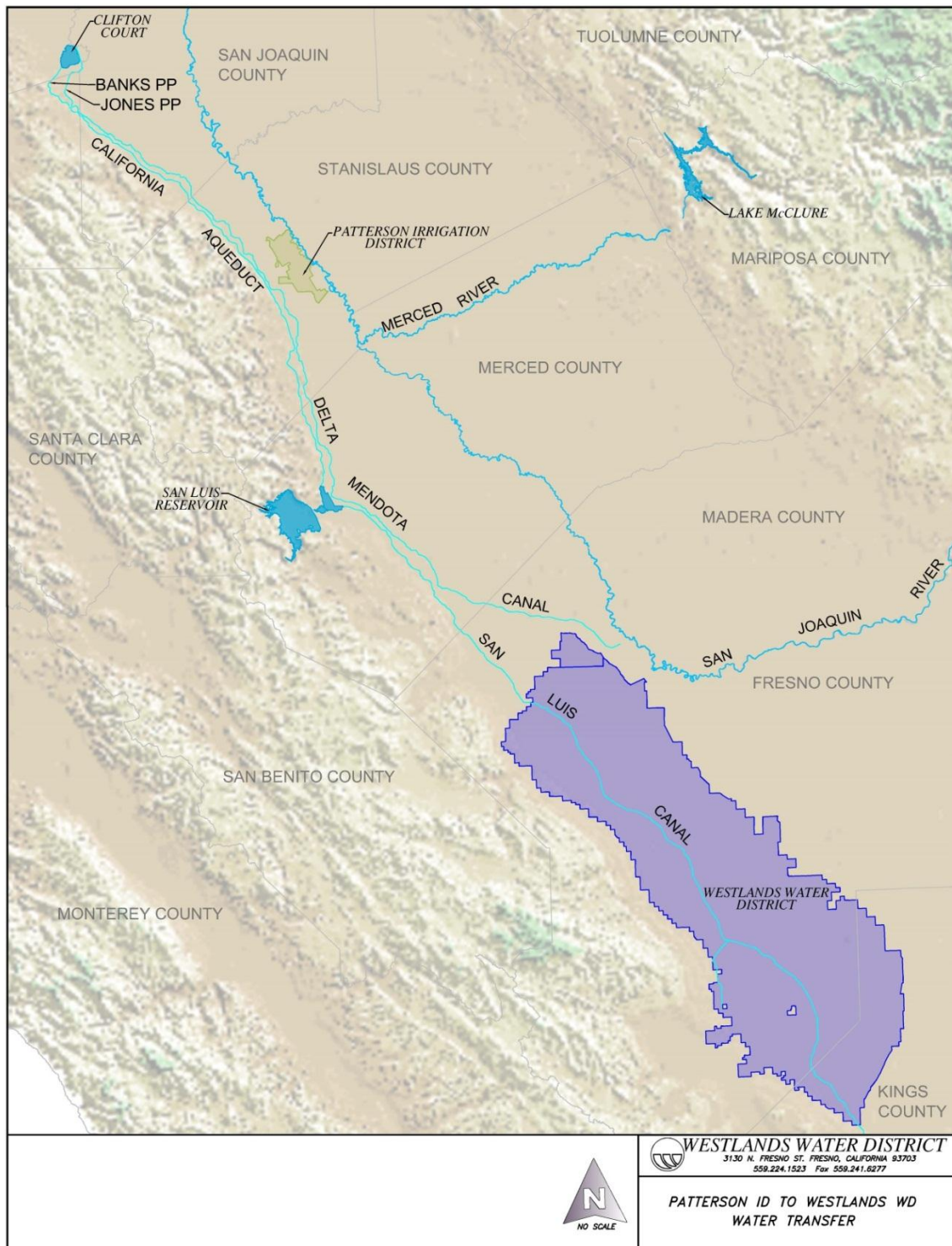


Figure 1-1 Project Location

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Section 2 Alternatives Including the Proposed Action

This EA considers two possible actions: the No Action Alternative and the Proposed Action. The No Action Alternative reflects future conditions without the Proposed Action and serves as a basis of comparison for determining potential effects to the human environment.

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not approve the transfer of PID's Replacement Water to WWD. PID would continue to use the remaining balance of its Replacement Water within its district, and WWD would have to find another source of water to meet the needs of its customers.

2.2 Proposed Action

Reclamation proposes to approve PID's transfer of up to 1,500 AF of its Replacement Water (under Contract #14-06-200-3598A-LTR1) to WWD for the remainder of the 2013 contract water year. WWD would take delivery of 1,500 AF no later than February 28, 2014.

Reclamation would facilitate this transfer by conveying the Replacement Water down the DMC from the San Joaquin-Sacramento River Delta (Delta), which is the typical route for PID's delivery, but instead of being diverted into PID turnouts, 1,500 AF of PID's Replacement Water would continue to O'Neill Forebay and then delivered to existing WWD turnouts along the San Luis Canal, and/or stored in San Luis Reservoir for later use. WWD would like the flexibility to deliver the water throughout the district as needed, so the turnouts would be between mileposts 104.18R to 171.51R. WWD would then convey this Replacement Water to its water users.

2.2.1 Environmental Commitments

The proponents must implement the following environmental protection measures to reduce environmental consequences associated with the Proposed Action (Table 2-1). Environmental consequences for resource areas assume the measures specified would be fully implemented. Copies of all reports would be submitted to Reclamation.

Table 2-1 Environmental Protection Measures and Commitments

Resource	Protection Measure
Biological	There would be no conversion of lands fallowed and untilled for three or more years without additional environmental review.

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Section 3 Affected Environment and Environmental Consequences

This section identifies the potentially affected environment and the environmental consequences involved with the Proposed Action and the No Action Alternative, in addition to environmental trends and conditions that currently exist.

3.1 Resources Eliminated from Further Analysis

Reclamation analyzed the affected environment and determined that neither Proposed Action nor the No Action Alternative have the potential to cause direct, indirect, or cumulative effects to the resources listed in Table 3-1.

Table 3-1 Resources Eliminated from Further Analysis

Resource	Reason Eliminated
Cultural Resources	Reclamation determined on December 19, 2013, that the Proposed Action has no potential to affect cultural resources. See Appendix A.
Indian Sacred Sites	The Proposed Action would not limit access to ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites, since the project is not located on federal lands and no new construction or ground disturbing activities would occur as part of the Proposed Action. Therefore, there would be no impacts to Indian Sacred Sites as a result of the Proposed Action.
Indian Trust Assets	Reclamation determined on December 20, 2013, that the Proposed Action has no potential to affect Indian Trust Assets. See Appendix B.
Air Quality	Under the Proposed Action, the water would be delivered off the San Luis Canal to WWD. Delivery of this water would require no modification of existing facilities or construction of new facilities. Although routing the water through the San Luis Canal would require slightly more pumping than would be necessary under the No Action Alternative, the energy required would be negligible in the larger picture of energy use and generation.
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. The water involved in the Proposed Action is water that would be delivered from existing facilities under either alternative and is therefore part of the existing conditions. Although routing the water through the San Luis Canal would require slightly more pumping than would be necessary under the No Action Alternative, the energy required would be negligible in the larger picture of energy use and generation.

3.2 Water Resources

3.2.1 Affected Environment

Westlands Water District

WWD encompasses more than 600,000 acres of farmland located in western Fresno and Kings Counties and serves approximately 600 family-owned farms that average 900 acres in size.

WWD is a CVP contractor with a contract for 1,150,000 AF/yr. WWD, located on the west side of the San Joaquin Valley, is a part of the San Luis Unit of the CVP, with contracts from the San

Luis Unit and the Delta Division. The San Luis Unit receives water from the CVP through the DMC and the San Luis Canal (SLC). Water is delivered directly to land in the San Luis Unit from the Delta or is stored temporarily in San Luis Reservoir for later delivery. Once diverted from the CVP facilities, water is delivered to farmers through 1,034 miles of underground pipe and over 3,300 metered delivery outlets.

For the purposes of the effect analysis, baseline conditions are described as conditions during the past five years. The five-year average allocation of CVP water supplies delivered to WWD and other South-Of-Delta contractors is described in Table 3-2. Allocations of CVP water are listed on a yearly basis for agriculture purposes from 2009 to 2013. The five-year average is 39 percent of contract amounts for agriculture. The annual contract amounts for WWD is 1,150,000 AF, thus the net baseline supply is 445,341 AF.

Table 3-2 Westlands Water District Supply History

Year	CVP Allocation	Net CVP, AF	Groundwater, AF	Water User Acquired, AF	Additional District Supply, AF	Total Supply, AF	Fallowed Acres
2009	10%	195,716	480,000	68,070	77,424	821,210	156,239
2010	45%	570,732	140,000	71,296	98,569	880,597	131,339
2011	80%	842,552	45,000	60,380	226,044	1,173,976	59,514
2012	40%	389,167	355,000	111,154	139,920	995,241	112,755
2013	20%	228,537	500,000	80,000	160,000	968,537	145,000
5-Year Average	39%	445,341	304,000	78,180	140,391	967,912	120,969
<p>"Net CVP" is CVP allocation adjusted for carryover and rescheduled losses. "Water User Acquired" indicates water that was obtained through private landowner water transfers. "Additional District Supply" is surplus water, supplemental supplies and other adjustments. Source: WWD 2013</p>							

In addition to the CVP supply, the other sources of water to WWD are shown in Table 3-2. Landowners in WWD rely on groundwater pumping, water transfers, and WWD acquisitions to supplement the CVP supply, and if the water portfolio comes up short, land is taken out of production (fallowed).

Patterson Irrigation District

PID's distribution system consists of 309 turnouts, 3.8 miles of unlined canal, 51.8 miles of concrete-lined canal, and 84 miles of pipeline. PID provides agricultural water to approximately 643 landowners and approximately 400 water users on about 12,700 acres. PID currently gets between 80 to 90 percent of its water supply from the San Joaquin River, with its remaining supply coming from groundwater, recirculation projects and the DMC.

As a pre-1914 water rights holder, PID has the authority and right under California law to divert the amount of water that is needed as long as it is put to beneficial use and within its original water right. San Joaquin River water is pumped by PID uphill into its Main Canal through a series of pump stations and reservoir pools. Originally designed as settling basins to settle out silt from the San Joaquin River water source, the reservoirs have negligible storage capacity. The Main Canal flows from east to west, and supplies 13 main laterals, which flow north and south. The current Main Canal peak capacity is 200 cubic-feet per second (cfs). On average, PID pumps approximately 36,000 AF/yr from the San Joaquin River for use by local agriculture.

PID also has a water service contract with Reclamation for 16,500 AF/y of CVP water delivered from the DMC. As a result of a settlement reached between PID and Reclamation for the construction of Friant Dam and partial obstruction of natural flow from the San Joaquin River, PID receives 6,000 AF/y of additional Replacement Water from Reclamation via the DMC.

Delta-Mendota Canal

The DMC carries water southeasterly from the Tracy Pumping Plant along the west side of the San Joaquin Valley for irrigation supply, for use in the Delta Division and San Luis Unit, and to replace San Joaquin River water stored at Friant Dam and used in the Friant-Kern and Madera Canals. The DMC is about 117 miles long and terminates at the Mendota Pool, about 30 miles west of Fresno. The initial diversion capacity is 4,600 cfs, which is gradually decreased to 3,211 cfs at the terminus. The DMC is a part of the CVP, which annually delivers about seven million AF of water for agriculture, urban, and wildlife use.

San Luis Canal

This joint CVP/SWP facility is a concrete-lined canal with a capacity ranging from 8,350 to 13,100 cfs. The San Luis Canal is operated by the Department of Water Resources (DWR) and extends 102.5 miles from the O'Neill Forebay, near Los Banos, in a southeasterly direction to a point west of Kettleman City. The 138-foot-wide channel is 36 feet deep, 40 feet wide at the bottom, and lined with concrete.

Coalinga Canal

This Federal facility, formerly called Pleasant Valley Canal, carries water from the turnout structure on the San Luis Canal to the Coalinga area in Fresno County. The 12-mile concrete-lined system includes a 1.6-mile intake channel to the Pleasant Valley Pumping Plant and 11.6 miles of canal. The initial capacity of the canal is 1,100 cfs, decreasing to 425 cfs at the terminus. Reaches 1 and 2 of the canal are operated by WWD.

O'Neill Forebay

The O'Neill Forebay Inlet Channel extends 2,200 feet from the Delta-Mendota Canal to deliver water to the O'Neill Forebay. The forebay holds 56,000 acre-feet, part of which is used for regulator storage to permit off-peak pumping and on-peak generation. Six pumping units of the O'Neill Pumping-Generating Plant lift water 45 to 53 feet into the forebay. The forebay, with a capacity of 56,400 acre-feet, is used as a hydraulic junction point for Federal and State waters. Recreation facilities included at the forebay for picnicking, camping, swimming, boating, water skiing, and fishing.

San Luis Reservoir

San Luis Reservoir is a storage facility south of the Delta, operated jointly by the CVP and SWP. Water is stored during the fall and winter months when Delta pumps can export more water than is needed for scheduled water demands. Similarly, water is released from San Luis Reservoir during spring and summer months when water demands are greater than the project's Delta export capacity. The total storage of San Luis Reservoir is 2,041,000 AF, which is shared between the CVP and the SWP. The O'Neill Forebay also receives CVP supplies from the Delta-Mendota Canal via the Federal O'Neill Pump-Generating Plant, and SWP supplies from the California Aqueduct.

3.2.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not approve the transfer of PID's Replacement Water to WWD. PID would continue to use the remaining balance of its Replacement Water within its district, and WWD would have to find another source of water to meet the needs of its customers. This additional water could come from a variety of sources, including groundwater or surface water purchased on the open market. Pumping groundwater could exacerbate existing problems with water table overdraft and subsidence.

Proposed Action

Under the Proposed Action, WWD would receive up to 1,500 AF of additional water to supplement their CVP contract supply. PID has determined that they can make this water available without infringing on current needs and land uses within their district. Similar to the No Action Alternative, conditions would remain the same as have historically occurred and there would be no impacts to the canals' operations. The volume of water considered under the Proposed Action is relative minor and should not constrain canal capacity.

Cumulative Impacts

Cumulative impacts result from incremental impacts of the Proposed Action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. To determine whether cumulatively significant impacts are anticipated from the Proposed Action, the incremental effects were examined together with impacts from past, present, and reasonably foreseeable future actions in the same geographic area.

As in the past, hydrological conditions and other factors are likely to result in fluctuating water supplies which drive requests for water service actions. Water districts provide water to their customers based on available water supplies and timing, 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. Existing past, present and foreseeable projects, in addition to the proposed transfer, which could affect or could be affected by the Proposed Action, include the following:

Accelerated Water Transfer Program Under the Accelerated Water Transfer Program, South of Delta contractors are permitted to transfer up to 150,000 AF of CVP water in aggregate without further environmental analysis, subject to certain requirements and restrictions. Reclamation issued FONSI 10-051 for this action on February 14, 2011. Reclamation supplemented the SOD AWTP EA with Supplemental EA-13-007 to include water acquisitions for refuges by Reclamation pursuant to Section 3406(d)(2) of the CVPIA and analyzed the delivery of this water to the refuges.

Additional Point of Delivery for Patterson Irrigation District's Non-Project Water to Del Puerto Water District Under a previous action (EA 09-156), Reclamation analyzed the transfer of up to 10,000 AF of PID's non-CVP water to a variety of contractors to and through the DMC. In 2012, the previous analysis was amended to allow up to 10,000 AF to be

transferred from PID to Del Puerto Water District. Reclamation issued FONSI 12-054 for this action on July 17, 2012.

Central Valley Project Interim Renewal Contracts for Westlands Water District, Santa Clara Valley Water District, and Pajaro Valley Water Management Agency 2014-2016

This action consists of issuance of Interim Renewal Contracts to provide continuing water service to the affected contractors (including WWD) while long-term service contracts are being evaluated. Reclamation is evaluating this action under an EA. A similar action was analyzed for the period of 2012-2014 under EA/FONSI 11-049.

Delta-Mendota Canal Pump-In Project (2013-2024) The DMC pump-in program allows the member agencies of the San Luis & Delta-Mendota Water Authority to pump groundwater into the DMC for delivery to contractors. This action covers the period from March 1, 2013 to February 29, 2024, and was analyzed under EA 12-061. Similar actions were analyzed for the time period of March 1, 2011 to February 28, 2012 and March 1, 2012 to February 28, 2013 under EA 10-072 and 12-005, respectively.

Firebaugh Water District 5 Year Transfer/Exchange Central Valley Project Water to Panoche Water District, San Luis Water District, and Westlands Water District Under this action, Firebaugh Water District would pump groundwater for in-district use, making surface water supplies available for transfer. Up to 7,500 AF of water would then be transferred to the receiving districts on an annual basis. Reclamation is preparing an EA for this action.

Five Year Annual Transfers of up to 20,500 acre-feet of Central Valley Project Water from Central California Irrigation District to San Luis, Panoche, Del Puerto and Westlands Water Districts Under this action, Central California Irrigation District would pump groundwater for in-district use, making surface water supplies available for transfer. Up to 20,500 AF of water would then be transferred to San Luis, Panoche, Del Puerto and Westlands Water Districts on an annual basis. Reclamation is preparing an EA for this action.

License to Del Puerto Water District for New Discharge Point at Milepost 52.40L on the Delta-Mendota Canal Under this action, Reclamation is considering allowing DPWD to construct a new discharge facility to pump water into the DMC. Reclamation considered this action under CEC 12-080.

Merced Irrigation District Warren Act Transfer 15,000 AF Reclamation executed a Warren Act Contract which allowed Merced Irrigation District to convey up to 15,000 AF of non-project water to WWD and/or San Luis Water District by way of federal facilities in the water year ending February 28, 2014. FONSI 13-035 was issued for this action on September 17, 2013.

Patterson Irrigation District Transfer and/or Warren Act Contract for up to 36,000 acre-feet of Water to Santa Clara Valley Water District Under this project, Reclamation would approve PID's delivery of up to 36,000 AF of PID's Transfer Water to Santa Clara Valley Water District over a 10-year period (March 1, 2014 through February 29, 2024). If needed, Reclamation would issue a Warren Act contract for conveyance of any non-CVP water to SCVWD within the 10-year period. Reclamation is preparing an EA for this action.

San Luis Water District Warren Act Contract - Bettencourt Well Pump-In along the SLC

Under this action, Reclamation issued a five-year Warren Act contract to San Luis Water District for conveyance of up to 1,500 acre-feet per year of groundwater in the SLC. The term for pumping and conveyance would be July 2012 through February 28, 2017. FONSI 11-003 was issued for this action on August 1, 2012.

Vista Verde Temporary Nine Year Annual Transfer of 1,140 acre-feet of Settlement Contract Water to Vista Verde-Owned Lands within Westlands Water District Under this action, the landowner requested permission to deliver their settlement contract water to different property within the boundaries of Westlands Water District in order to make use of more productive farmland. Reclamation issued FONSI 12-038 for this action on August 1, 2012.

Westlands Water District Warren Act Groundwater Pumping into Coalinga Canal

Westlands Water District has asked to convey up to 10,000 acre-feet of non-project groundwater in the Coalinga Canal over a period of five years. Reclamation is evaluating this proposal as EA 13-042.

Westlands Water District Warren Act Contract - Kings River Flood Flows Conveyance in the San Luis Canal Under this action, Westlands is permitted to convey up to 50,000 AF per year of excess Kings River flood flows in the San Luis Canal, as capacity allows. The agreement covers five years, from 2012 to 2016. FONSI 11-002 was issued for this action on January 25, 2012.

Water service actions, like those described above, do not result in increases or decreases of water diverted from rivers or reservoirs. Each water service transaction involving CVP and non-CVP water undergoes environmental review prior to approval. The Proposed Action would not interfere with the projects listed above, nor would they hinder the normal operations of the CVP and Reclamation's obligation to deliver water to its contractors or to local fish and wildlife habitat. When added to other water service actions, it would not result in cumulative effects to surface water resources beyond historical fluctuations and conditions.

3.3 Land Use

3.3.1 Affected Environment

WWD is located in western Fresno and Kings County. WWD is approximately 600,000 acres in size and is primarily an agricultural district with about 568,000 acres of irrigable farmland.

PID is entirely an agricultural district growing a variety of orchard and row crops. It is anticipated that as the City of Patterson and the Interstate 5 corridor continue to grow, any new proposed development requiring municipal and industrial (M&I) water would be detached from the district. It is currently PID policy to require water users requesting M&I water to detach from the district. Therefore, despite neighboring growth pressures, PID is expected to remain entirely an agricultural district.

3.3.2 Environmental Consequences

No Action

Under the No Action Alternative, PID would continue to use the Replacement Water as part of its varied water resources to irrigate existing farmlands. Conditions in PID would remain the same as described above.

Without supplemental water, WWD's customers would have to find alternative sources of water, either from surface water supplies or by pumping groundwater. If no alternative sources are available, it could be necessary to temporarily or permanently take crops out of production. This would be an adverse impact to current land uses.

Proposed Action

The Proposed Action would not result in any land use changes in PID because the district has determined that they have adequate water to meet the needs of its customers. Existing uses would be unaffected.

WWD would use the additional Replacement Water to irrigate and maintain its customers' existing permanent crops. Maintaining a reliable and cost-effective water supply is a benefit for the area's current land uses.

Cumulative Impacts

The Proposed Action would allow WWD's customers to continue current land use patterns, consistent with expectations for the area. No adverse cumulative impacts are anticipated.

3.4 Biological Resources

3.4.1 Affected Environment

The biological resources in PID and WWD are similar to biological resources found in other agricultural areas of the San Joaquin Valley. The project areas are 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.

Reclamation requested a list of endangered, threatened, and sensitive species from the U.S. Fish and Wildlife Service (USFWS) on December 30, 2013 via the Sacramento Field Office's website: http://www.fws.gov/sacramento/ES_Species/Lists/es_species_lists-form.cfm (Document No. 131230020412). The list is for the following U.S. Geological Survey 7½-minute topographic quadrangles which underlie the Action Area: Stratford, Westhaven, Kettleman City, Huron, Gujarral Hills, Avenal, La Cima, Coalinga, Burrel, Vanguard, Lemoore, Five Points, Westside, Harris Ranch, Calfax, Tres Pecos Farms, Lillis Ranch, Domengine Ranch, San Joaquin, Helm, Tranquillity, Coit Ranch, Levis, Cantua Creek, Chaney Ranch, Chounet Ranch, Tumey Hills, Monocline Ridge, Firebaugh, Hammonds Ranch, Broadview Farms, Crows Landing, Patterson, Westley, and Brush Lake. Reclamation also queried the California Department of Fish and Wildlife's California Natural Diversity Database (CNDDDB) for records of special-status species within 10 miles of the action area (CNDDDB 2013). This information, in addition to other information in Reclamation's files, was reviewed to determine the potential for special-status species to occur in the action area (Table 3-3).

Table 3-3 Threatened and Endangered Species and Critical Habitat that May Occur Within the Vicinity of the Action Area

Species	Status ¹	ESA Effects ²	Summary basis for ESA determination
INVERTEBRATES			
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	E	NE	No individuals or vernal pools in area of effect.
Vernal pool Fairy Shrimp (<i>Branchinecta lynchi</i>)	T	NE	No individuals or vernal pools in area of effect.
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	T	NE	No individuals recorded from the area and no elderberry shrubs would be impacted from the Proposed Action.
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	E	NE	No individuals or vernal pools in area of effect.
FISH			
Green Sturgeon (<i>Acipenser medirostris</i>)	T, X NMFS	NE	No natural waterways within the species' range or critical habitat would be affected by the Proposed Action.
Delta smelt (<i>Hypomesus transpacificus</i>)	T	NE	No natural waterways within the species' range would be affected by the Proposed Action.
Central Valley steelhead (<i>Oncorhynchus mykiss</i>)	T, X NMFS	NE	No natural waterways within the species' range or critical habitat would be affected by the Proposed Action.
Central Valley spring-run Chinook salmon (<i>Oncorhynchus tshawytscha</i>)	T, NMFS	NE	No natural waterways within the species' range would be affected by the Proposed Action.
Winter-run Chinook salmon, Sacramento River (<i>Oncorhynchus tshawytscha</i>)	E, NMFS	NE	No natural waterways within the species' range would be affected by the Proposed Action.
AMPHIBIANS			
California tiger salamander, central population (<i>Ambystoma californiense</i>)	T	NE	There are no vernal pools or seasonal wetlands in croplands or lands fallowed and untilled for less than three years.
California red-legged frog (<i>Rana draytonii</i>)	T	NE	No individuals or habitat have been observed in the area of effect.
REPTILES			
Blunt-nosed leopard lizard (<i>Gambelia sila</i>)	E	NE	There are records of this species within and near WWD. Much of the natural lands near the action area (Ciervo-Panoche area in particular) are unsuitable due to dense vegetation and high clay soils (USFWS 2010). Irrigated agricultural lands do not support this species. Also, no new construction or conversion of lands from existing uses is proposed.
Giant garter snake (<i>Thamnophis gigas</i>)	T	NE	There are records of giant garter snakes within 5 miles of the action area, at the Mendota Wildlife Management Area. This species may occur in irrigation ditches or canals within the action area. No new construction or conversion of lands from existing uses is proposed.
BIRDS			
Burrowing Owl (<i>Athene cunicularia</i>)	MBTA	NT	Documented as extant within WWD and potential habitat present. No construction of new facilities; no conversion of lands from existing uses is proposed.

Species	Status ¹	ESA Effects ²	Summary basis for ESA determination
Western snowy plover (<i>Charadrius alexandrinus nivosus</i>)	T	NE	Documented as extant within vicinity of WWD and potential habitat is present. No construction of new facilities; no conversion of lands from existing uses is proposed
California condor (<i>Gymnogyps californianus</i>)	E	NE	No individuals or habitat have been observed in the area of effect.
Swainson's hawk (<i>Buteo swainsoni</i>)	MBTA	NT	Presumed extant in area during nesting season (March 1 through September 15) and habitat is present. However, work window is outside this time.
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	E	NE	No individuals or habitat have been observed in the area of effect.
MAMMALS			
Giant kangaroo rat (<i>Dipodomys ingens</i>)	E	NE	Individuals have been documented along the northwestern border of the WWD service area on Bureau Of Land Management undeveloped lands. This species does not occur in agricultural habitats. No construction of new facilities or conversion of lands from existing uses is proposed.
Fresno kangaroo rat (<i>Dipodomys nitratoides exilis</i>)	E, X	NE	No individuals or habitat have been observed in the area of effect. Agricultural lands do not support this species. Also, no new construction or conversion of lands from existing uses is proposed. The Proposed Action area is not within designated critical habitat.
Tipton kangaroo rat (<i>Dipodomys nitratoides nitratoides</i>)	E	NE	An individual was documented along the southern border of WWD service area in the Kettleman Hills. This species does not occur in agricultural habitats. No construction of new facilities or conversion of lands from existing uses is proposed.
Buena Vista Lake shrew (<i>Sorex ornatus relictus</i>)	X	NE	No individuals or habitat have been observed in the area of effect. The Proposed Action area is not within designated critical habitat.
Riparian brush rabbit (<i>Sylvilagus bachmani riparius</i>)	E	NE	No individuals or habitat have been observed in the area of effect.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	E	NE	There are multiple CNDDDB-recorded occurrences of San Joaquin kit fox in and near the action area. No construction of new facilities and no conversion of lands from existing uses is proposed.
PLANTS			
California jewelflower (<i>Caulanthus californicus</i>)	E	NE	This species does not inhabit croplands or lands fallowed and untilled for less than three years.
Plamate-bracted bird's-beak (<i>Cordylanthus palmatus</i>)	E	NE	This species does not inhabit croplands or lands fallowed and untilled for less than three years.
San Joaquin woolly-threads (<i>Monolopia congdonii</i>)	E	NE	CNDDDB records indicate this species occurs along Panoche Creek. This species does not occur in agricultural habitats. No construction of new facilities and no conversion of lands from existing uses is proposed.

Species	Status ¹	ESA Effects ²	Summary basis for ESA determination
<p>1 Status= Listing of Federally special status species E: Listed as Endangered MBTA: Birds protected under Migratory Bird Treaty Act. NMFS: Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service T: Listed as Threatened X: Critical Habitat designated for this species</p> <p>2 ESA Effects = Effect determination for Endangered Species Act Analysis NE: No Effect from the Proposed Action to federally listed species NT: No Take would occur from the Proposed Action to migratory birds</p>			

3.4.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not approve the transfer of PID's Replacement Water to WWD. The condition of biological resources under the No Action Alternative would remain the same as existing conditions described above; therefore no additional effects to biological resources are associated with this alternative.

Proposed Action

Effects are similar to the No Action Alternative. Most of the habitat types required by species protected under the Endangered Species Act (ESA) or birds protected by the Migratory Bird Treaty Act (MBTA) do not occur within the Proposed Action area. Any encountered biological resources are likely to be those associated with actively cultivated land. The Proposed Action would not involve the conversion of any land fallowed and untilled for three or more years as the Replacement Water would only be used on existing agricultural lands. The conversion of lands fallowed and untilled for three or more years would require additional environmental review. Since no natural stream courses or additional surface water pumping would occur and there are capacity limitations and water quality restrictions in the DMC, there would be no effect to listed fish species from the Proposed Action. No critical habitat occurs within the area affected by the Proposed Action; therefore, no primary constituent elements of any critical habitat would be affected.

Based upon the short duration of the water availability, no later than February 28, 2014, and the requirement that no native lands be converted without consultation with USFWS, any potential impacts to wildlife (whether federally listed or not) would be precluded. Reclamation has determined there would be no effect to listed species or take of birds protected by the MBTA.

Cumulative Impacts

Existing conditions, such as loss of habitat due to urbanization and expanding agricultural lands that cumulatively impact listed species and their habitats, are expected to occur under either alternative. The transfer of 1,500 AF of PID's Replacement Water to WWD is not expected to contribute cumulatively to habitat loss as this water would be used consistent with current uses. Therefore, there would be no cumulative adverse impacts to biological resources as a result of the Proposed Action.

3.5 Socioeconomic Resources

3.5.1 Affected Environment

The area located within WWD and PID is primarily rural agricultural land which provides farm-related jobs. There are small businesses that support agriculture, for example: feed and fertilizer sales, machinery sales and service, pesticide applicators, transport, packaging, marketing, etc. within the surrounding area. Per capita income is lower in Stanislaus, Fresno and Kings County than in California as a whole, and the unemployment and poverty rates are also considerably higher. See Table 3-4, below.

Table 3-4 2012 Employment and Economic Data

	Per Capita Income	Unemployment Rate	Poverty Rate
Stanislaus County	\$21,785	17.2%	19.2%
Fresno County	\$20,391	15.7%	24.8%
Kings County	\$18,566	16.5%	20.7%
California	\$29,551	11.4%	15.3%

Source: Census Bureau 2012 , Census Bureau 2013

3.5.2 Environmental Consequences

No Action

Under the No Action Alternative, conditions would remain the same in PID and there would be no impacts to socioeconomic resources. Without supplemental water, landowners in WWD growing permanent crops would have to find alternative sources of water, likely at greater cost. If alternative sources of water could not be found then crops may be taken out of production. This would be an adverse impact to farmers and agriculture-dependent businesses in the area.

Proposed Action

The Proposed Action would provide supplemental water to WWD to sustain their existing crops and at the same time still provide sufficient irrigation water for landowners in PID. Conditions would remain the same as existing conditions and there would be no impacts to socioeconomic resources.

Cumulative Impacts

The Proposed Action supports existing patterns of employment and economic activity. No adverse cumulative impacts are expected.

3.6 Environmental Justice

Executive Order 12898 (February 11, 1994) mandates Federal agencies to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.

3.6.1 Affected Environment

The market for seasonal workers on local farms draws thousands of migrant workers, commonly of Hispanic origin from Mexico and Central America, into the San Joaquin Valley. Agriculture

and related businesses are the main industry in WWD and PID, providing employment opportunities for these minority and/or disadvantaged populations. The areas around the districts have stable economies based on local tomato, cereal, citrus, olive, and walnut products. Demographic data for the three project-area counties are shown below in Table 3-5.

Table 3-5 2012 Demographic Data

	Total Population	White (not Hispanic)	Black or African American	American Indian	Asian	Native Hawaiian/ Pacific Islander	Hispanic or Latino
Stanislaus County	521,726	84.4%	3.2%	1.9%	5.7%	0.9%	43.0%
Fresno County	947,895	77.5%	5.9%	3.0%	10.4%	0.3%	51.2%
Kings County	151,364	81.4%	7.5%	3.0%	4.3%	0.3%	52.0%
California	38,041,430	73.7%	6.6%	1.7%	13.9%	0.5%	38.2%

Source: Census Bureau 2013

3.6.2 Environmental Consequences

No Action

Under the No Action Alternative, conditions would remain the same in PID and there would be no impacts to employment opportunities for disadvantaged populations. Without supplemental water, landowners in WWD growing permanent crops would have to find alternative sources of water, likely at greater cost. If alternative sources of water could not be found then crops may be taken out of production. This would be an adverse impact to low-income wage earners in the area, since it would reduce employment opportunities.

Proposed Action

Under the Proposed Action, the availability of additional Replacement Water would help maintain agricultural production and local employment in WWD. Employment opportunities for low-income wage earners and minority population groups would be consistent with historical conditions. Disadvantaged populations would not be subject to disproportionate impacts.

Cumulative Impacts

The Proposed Action supports existing patterns of employment and economic opportunities for farm laborers and other agriculture-dependent populations. No cumulative adverse impacts are expected.

Section 4 Consultation and Coordination

4.1 Public Review Period

Reclamation provided the public with an opportunity to comment on the Draft Finding of No Significant Impact and Draft EA between January 22, 2014 and February 5, 2014. No comments were received on the draft documents.

4.2 Fish and Wildlife Coordination Act (16 U.S.C. § 661 et seq.)

The Fish and Wildlife Coordination Act (FWCA) requires that Reclamation consult with fish and wildlife agencies (federal and state) on all water development projects that could affect biological resources. The amendments enacted in 1946 require consultation with the Service and State fish and wildlife agencies “whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or the stream or other body of water otherwise controlled or modified for any purpose whatever, including navigation and drainage, by any department or agency of the United States, or by any public or private agency under Federal permit or license”. Consultation is to be undertaken for the purpose of “preventing the loss of and damage to wildlife resources”.

The Proposed Action does not involve any new impoundment or diversion of waters, channel deepening, or other control or modification of a stream or body of water as described in the statute, but the transfer of Replacement Water. In addition, no construction or modification of water conveyance facilities are required for movement of this water. Consequently, Reclamation has determined that FWCA does not apply. The Proposed Action does not require consultation per the Fish and Wildlife Coordination Act.

4.3 Endangered Species Act (16 U.S.C. § 1531 et seq.)

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

Based upon the short duration of the water availability, and the requirement that no native lands be converted without consultation with USFWS, Reclamation has determined there would be no effect to listed species. Therefore consultation with the USFWS is not required.

4.4 Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.)

The MBTA implements various treaties and conventions between the United States and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Unless

permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns.

The Proposed Action would not change the land use patterns of the District's cultivated or fallowed fields that do have some value to listed species or birds protected by the MBTA; therefore, therefore, no further coordination is needed under Bird Treaty Act.

Section 5 Preparers and Reviewers

5.1 Westlands Water District

Jose Gutierrez, Deputy General Manager
Charlotte Gallock, Junior Engineer

5.2 Patterson Irrigation District

Peter Rietkerk, General Manager

5.3 Reclamation

Ben Lawrence, Natural Resources Specialist, SCCAO-412
Jennifer Lewis, Wildlife Biologist, SCCAO-422
Lisa Carlson, Biological Science Technician, SCCAO-425
Rain Emerson, Natural Resources Specialist, SCCAO-413- Reviewer
Michael Inthavong, Natural Resources Specialist, MP- Reviewer
Bill Soule, Archaeologist, MP-153
Patricia Rivera, Native American Affairs Specialist, MP-400

Section 6 Acronyms and Abbreviations

CNDDDB	California Natural Diversity Database
CVP	Central Valley Project
Delta	Sacramento-San Joaquin River Delta
DMC	Delta-Mendota Canal
EA	Environmental Assessment
FONSI	Finding of No Significant Impact
MBTA	Migratory Bird Treaty Act
M&I	Municipal and Industrial
PID	Patterson Irrigation District
Reclamation	United States Bureau of Reclamation
SJR	San Joaquin River
SLC	San Luis Canal
WWD	Westlands Water District

Section 7 References

CNDDDB (California Natural Diversity Database) 2013. California Department of Fish and Wildlife's Natural Diversity Database, December 2013.

United States Fish and Wildlife Service (USFWS). 2010. Blunt-nosed leopard lizard (*Gambelia sila*), 5-year Review: Summary and Evaluation. Sacramento Fish and Wildlife Office, Sacramento, CA. Feb.

US Census Bureau (Census Bureau). 2012. American Community Survey. Website: <http://www.census.gov/acs/www/>. Accessed December 2013.

US Census Bureau (Census Bureau) 2013. State and County QuickFacts. Website: <http://quickfacts.census.gov/qfd/index.html>. Accessed December 2013.

Westlands Water District (WWD). 2013. Westlands Water District Water Supply. Website: <http://westlandswater.org/resources/watersupply/supply.asp?title=Annual%20Water%20Use%20and%20Supply&cwide=1920>. Accessed: January 2014.

Appendix A Cultural Resources Determination

CULTURAL RESOURCE COMPLIANCE

Reclamation Division of Environmental Affairs

MP-153

MP-153 Tracking Number: 14-SCAO-052

Project Name: Transfer of 1,500 Acre-Feet (AF) of Replacement Water from Patterson Irrigation District (PID) to Westlands Water District (WWD)

NEPA Document: SCCAO-EA-13-073

NEPA Contact: Ben Lawrence, Natural Resources Specialist

MP 153 Cultural Resources Reviewer: William Soule, Archaeologist

Date: 12/19/2013

The undertaking by Reclamation is the approval of a transfer, by PID, of 1,500 AF of replacement water to WWD. This is the type of undertaking that does not have the potential to cause effects to historic properties, should such historic properties be present, pursuant to the National Historic Preservation Act (NHPA) Section 106 regulations codified at 36 CFR Part 800.3(a)(1).

Reclamation proposes to approve PID's delivery of up to 1,500 AF of its replacement water (under Contract #14-06-200-3598A-LTR1) to WWD for the remainder of the 2014 contract water year. WWD would take delivery of 1,500 AF during the months of January and February 2014. Reclamation would facilitate this transfer by conveying the replacement water down the Delta-Mendota Canal from the Delta as usual, but instead of being diverted into PID turnouts, 1,500 AF of PID's replacement water would be delivered to existing WWD turnouts along the San Luis Canal.

After reviewing the materials submitted by SCAO, I concur with a statement in SCCAO-EA-13-073 that neither this proposed action, nor the no action alternative, have the potential to cause effects to historic properties pursuant to 36 CFR § 800.3(a)(1). With this determination, Reclamation has no further NHPA Section 106 obligations. This memorandum is intended to convey the completion of the NHPA Section 106 process for this undertaking. Please retain a copy in the administrative record for this action. Should changes be made to this project, additional NHPA Section 106 review, possibly including consultation with the State Historic Preservation Officer, may be necessary. Thank you for providing the opportunity to comment.

CC: Cultural Resources Branch (MP-153), Anastasia Leigh – Regional Environmental Officer (MP-150)

Appendix B Indian Trust Assets Determination



Lawrence, Benjamin <blawrence@usbr.gov>

Request for Determinations, SCCAO 13-073, Transfer of 1,500 AF of Replacement Water from Patterson ID to Westlands WD

RIVERA, PATRICIA <privera@usbr.gov>

Fri, Dec 20, 2013 at 8:49 AM

To: "Lawrence, Benjamin" <blawrence@usbr.gov>, Kristi Seabrook <kseabrook@usbr.gov>

Ben,

I reviewed the proposed action to approve Patterson Irrigation District's request to transfer the 1,500 AF of Replacement water to Westlands Water District before it is lost at the end of February 2014. Reclamation would facilitate the transfer by conveying the replacement water down the Delta-Mendota Canal as usual, but instead of being diverted into Patterson turnouts, 1,500 AF of PID's replacement water would be delivered to existing Westlands Water District turnouts along the San Luis Canal. Only existing facilities would be used for this action.

The proposed action does not have a potential to impact Indian Trust Assets.

Patricia Rivera
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