RECLAMATION
Managing Water in the West

FINDING OF NO SIGNIFICANT IMPACT

Firebaugh Canal Water District Transfer of up to 7,500 acre-feet per year of Central Valley Project Water to Pacheco, Panoche, San Luis and Westlands Water Districts

FONSI-14-001

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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 (EIS) is not required for a series of annual transfers of up to 7,500 acre-feet (AF) of Firebaugh Canal Water District's (FCWD's) Central Valley Project (CVP) water to Pacheco Water District (Pacheco), Panoche Water District (Panoche), San Luis Water District (SLWD), and Westlands Water District (WWD) over a period of five years. This Finding of No Significant Impact (FONSI) is supported by Reclamation's Environmental Assessment (EA)-14-001, *Firebaugh Canal Water District Transfer of up to 7,500 acre-feet per year of Central Valley Project Water to Pacheco, Panoche, San Luis and Westlands Water Districts*, and is hereby incorporated by reference.

Reclamation provided the public with an opportunity to comment on the Draft FONSI and Draft EA between March 19, 2014 and April 17, 2014. One comment letter was received on April 24, 2014. The comment letter and Reclamation's response to comments are included in Appendix F of EA-14-001.

Background

FCWD, a member of the San Joaquin River Exchange Contractors (Exchange Contractors), has requested approval from Reclamation for a series of annual transfers of its CVP water supply to Pacheco, Panoche, SLWD, and WWD (hereafter referred to as the Transfer Recipient Districts). Similar transfers have occurred in the past, the most recent of which was approved in 2012 and analyzed in EA-12-006.

Proposed Action

Reclamation proposes to approve a series of annual transfers over a five year period (calendar year 2014 through 2018) of up to 7,500 AF per year (AFY) of FCWD's CVP contract (Exchange Contract) supplies to the Transfer Recipient Districts. The proposed transfers would occur from April through December of each year water is transferred and would not exceed the maximum of 37,500 AF over the five year period.

In order to make FCWD's CVP supplies available for the transfers, FCWD would pump up to 17 cubic feet per second of groundwater (for a maximum of 36 AF/day) from four wells to meet in-district demands in lieu of taking surface water deliveries dedicated to FCWD under the Exchange Contract. The pumped groundwater would be discharged into FCWD's conveyance system freeing up 7,500 AF of CVP water under the Exchange Contract to be delivered to the Transfer Recipient Districts via the Delta-Mendota Canal and the San Luis Canal.

Environmental Commitments

Reclamation, FCWD and the Transfer Recipient Districts would implement the environmental protection measures included in Table 2-1 of EA-14-001 to reduce environmental consequences associated with the Proposed Action. Environmental consequences for resource areas assume the measures specified would be fully implemented.

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, landowners in FCWD would pump groundwater in order to transfer a like-amount of FCWD's CVP water to the Transfer Recipient Districts. Similar to the No Action alternative, additional groundwater pumping may be needed due to current hydrologic conditions. Increased groundwater pumping could reduce water levels further and increase rates of subsidence in an area that has compacted approximately 0.23 feet between 2004 and 2010. However, as described previously, the wells that would be pumped are all from a relatively shallow level above the Corcoran clay which has contributed only a fraction of the increased compaction rates within the Mendota Pool area as the vast majority has been determined to be beneath the Corcoran Clay layer. Further, specific environmental commitments have been included in Section 2.2.1 in order to minimize potential impacts to groundwater levels. Following these commitments would maintain safe yield in the groundwater basin.

CVP and State Water Project facilities would not be impacted as the transferred water must be scheduled and approved by Reclamation and the California Department of Water Resources. No natural streams or water courses would be affected since no additional pumping or diversion that would not have happened under the No Action Alternative would occur.

The transfer of up to 7,500 AFY over the five-year period would offset a small portion of the surface water supply deficits annually faced by the Transfer Recipient Districts which would benefit some individual growers. Additional, surface water supplies may reduce the amount of groundwater that would need to be pumped in order to meet demands.

Water supplies in FCWD would continue to meet agricultural water demand despite the transfer as the pumped groundwater would be used in district to meet demands.

Environmental commitments to protect water quality in the Mendota Pool have been incorporated into the Proposed Action as outlined in Table 2-1 of EA-14-001. These commitments would ensure that no adverse impacts to water quality would occur.

Land Use

FCWD and the Transfer Recipient Districts would not change historic land and water management practices under the Proposed Action. FCWD's overall water supply would not change and irrigated acreages and crop mixes would remain the same. FCWD's CVP water would move through existing facilities for delivery to lands within the Transfer Recipient Districts for use on existing crops. The water would not be used to place untilled or new lands into production, or to convert undeveloped land to other uses.

Biological Resources

Most of the habitat types required by species protected by the Endangered Species Act do not occur in the Action area (see Table 3-3 of EA-14-001). The Proposed Action would not involve

the conversion of any land fallowed and untilled for three or more years. In addition, the Proposed Action would not change the land use patterns of the cultivated or fallowed fields that do have some value to listed species or to birds protected by the Migratory Bird Treaty Act. Land within SLWD, which is considered by the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife to be important for connecting kit fox populations to the south with those in the northern range, would be protected by the commitment made by the district (see Appendix B of EA-14-001). Since no natural stream courses or additional surface water pumping would occur, there would be no effects on listed fish species. No critical habitat occurs within the area affected by the Proposed Action and so none of the primary constituent elements of any critical habitat would be affected.

The giant garter snake would be protected by the restrictions incorporated into the Proposed Action as outlined in Table 2-1 of EA-14-001. These restriction include the following: (1) well water from well #5 would only be pumped into Mendota Pool when flow in Fresno Slough is to the south, (2) well water with total dissolved solids (TDS) concentrations greater than 2,000 milligrams per liter (mg/L) would not be pumped into the Mendota Pool, (3) well water with TDS higher than 1,200 mg/L TDS would not be pumped into Mendota Pool during the fall months, when there is reduced flow in the Mendota Pool and water quality at the Mendota Wildlife Area is most critical, and (4) selenium in well water pumped into Mendota Pool would not exceed 2.0 micrograms per liter. Water quality data for Well #5 complied with these requirements in 2014 (see Appendix E of EA-14-001).

The short duration of the water availability, the requirement that no native lands be converted without consultation with the U.S. Fish and Wildlife Service, and the stringent requirements for transfers under applicable laws would preclude any impacts to wildlife, whether Federally listed or not. As such, 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

The Proposed Action would facilitate the flow of water through existing facilities to existing users. As no construction or modification of facilities would be needed in order to complete the Proposed Action, Reclamation has determined that these activities have no potential to cause effects to historic properties pursuant to 36 CFR Part 800.3(a)(1). See Appendix C of EA-14-001 for Reclamation's determination.

Indian Sacred Sites

The Proposed Action will not limit access to or ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites.

Indian Trust Assets

The Proposed Action would not impact Indian Trust Assets as there are none in the Proposed Action area. See Appendix D of EA-14-001 for Reclamation's determination.

Socioeconomic Resources

The Proposed Action would have beneficial impacts on socioeconomic resources with the Transfer Recipient Districts as the transferred water would be used to help sustain existing crops and maintain farming within the districts. There would be no adverse socioeconomic impacts within FCWD as water needs would still be met and agricultural practices would be unchanged.

Environmental Justice

The Proposed Action would not cause dislocation, changes in employment, or increase flood, drought, or disease nor would it disproportionately impact economically disadvantaged or minority populations.

Air Quality

Two of FCWD's wells have electric motors which do not produce emissions that impact air quality. The other two wells have diesel engines; however, both wells meet the California Air Resources Board and Environmental Protection Agency Tier 3 specifications. As such, the engines meet the emission requirements for compression engines as outlined in San Joaquin Valley Air Pollution Control District Rule 4702, Section 5.2.4. Projected emissions from these engines would be below the *de minimis* amounts specified in 40 CFR § 93.153. As such a determination of general conformity under the Clean Air Act is not required.

Global Climate and Energy Use

The Proposed Action may result in the direct emissions of greenhouse gases through the use of diesel fuel when the two wells with diesel pumps are used in a given year. However, the greenhouse gases generated would be extremely small compared to sources contributing to potential climate change. The total greenhouse gas emissions from the diesel pumps would be far below the 25,000 metric tons per year threshold for reportable greenhouse gas emissions. Use of the two electric pumps would not result in the power plant exceeding operating capacity or its' emissions permit.

Cumulative Impacts

Cumulative impacts result from incremental impacts of the Proposed Action or No Action alternative 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 or the No Action alternative, the incremental effect of both alternatives were examined together with impacts from past, present, and reasonably foreseeable future actions in the same geographic area.

Reclamation has reviewed existing or foreseeable projects that could affect or could be affected by the Proposed Action including those described in EA-12-006. 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 aim to 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. Each water service transaction involving Reclamation undergoes environmental review prior to approval.

The Proposed Action and other similar projects would not hinder the normal operations of the CVP and Reclamation's obligation to deliver water to its contractors or to local fish and wildlife habitat. Since the Proposed Action would not involve construction or modification, nor interfere with CVP or State Water Project operations, there would be no cumulative impacts to existing facilities or other contractors.

FCWD would avoid any cumulative adverse water quality impacts involving groundwater delivered in-district by following the commitments outlined in Table 2-1 of EA-14-001. Since the transferred water delivered via the Delta-Mendota Canal and San Luis Canal would be CVP supplies, there would be no cumulative impacts to water quality delivered to the Transfer Recipient Districts.

As FCWD would follow the Exchange Contractors' AB3030 Groundwater Management Plan and restrict pumping to below the safe yield and all wells would be above the Corcoran Clay layer, there would be no cumulative impacts to groundwater levels or subsidence in the Exchange Contractors' service area as a result of the Proposed Action. Since the transfers may slightly reduce groundwater pumping in the Transfer Recipient Districts, the Proposed Action may reduce the risks of groundwater overdraft and subsidence in their respective areas. As a result, the Proposed Action would have no potential adverse cumulative impacts.

These findings indicate that there may be slight beneficial effects, but no adverse cumulative impacts to water resources resulting from the Proposed Action.

As the Proposed Action is not expected to result in any direct or indirect adverse impacts to land use, biological resources, cultural resources, Indian Sacred Sites, Indian Trust Assets, socioeconomics, minority or disadvantaged populations, air quality or global climate and energy use, there would be no cumulative adverse impacts to these resources.

RECLAMATION

Managing Water in the West

Final Environmental Assessment

Firebaugh Canal Water District Transfer of up to 7,500 acre-feet per year of Central Valley Project Water to Pacheco, Panoche, San Luis, and Westlands Water Districts

EA-14-001

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

April 2014

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 Finding of No Significant Impact (FONSI) and Draft Environmental Assessment (EA) between March 19, 2014 and April 17, 2014. On comment letter was received on April 24, 2014. The comment letter and Reclamation's response to comments are included in Appendix F. Changes between this Final EA and the Draft EA, which are not minor editorial changes, are indicated by vertical lines in the left margin of this document.

1.1 Background

Firebaugh Canal Water District (FCWD), a member of the San Joaquin River Exchange Contractors (Exchange Contractors), has requested approval from Reclamation for a series of annual transfers between 2014 and 2018 of up to 7,500 acre-feet (AF) per year (AFY) of its Central Valley Project (CVP) water supply to Pacheco Water District (Pacheco), Panoche Water District (Panoche), San Luis Water District (SLWD), and Westlands Water District (WWD) hereafter referred to as the Transfer Recipient Districts. Similar transfers have occurred in the past, the most recent of which was approved in 2012 and analyzed in EA-12-006 (Reclamation 2012). EA-12-006 analyzed the affected environment for the following resources: Water Resources, Land Use, Biological Resources, Cultural Resources, Indian Sacred Sites, Indian Trusts Assets (ITA), Socioeconomic Resources, Environmental Justice, Air Quality, Energy Use and Global Climate as a result of Reclamation approving annual transfers of up to 5,000 AFY of FCWD's CVP water to Panoche, SLWD, and WWD over a two-year period. A FONSI was executed on July 27, 2012. FONSI/EA-12-006 is hereby incorporated by reference.

1.2 Need for the Proposed Action

The State of California is currently experiencing unprecedented water management challenges due to severe drought in recent years. Both the State and Federal water projects are forecasting very low storage conditions in all major reservoirs. In addition, South-of-Delta (SOD) CVP contractors experienced reduced water supply allocations from 2007 to 2013 due to hydrologic conditions and regulatory requirements. Based on hydrologic conditions, Reclamation declared an initial 0 percent allocation for SOD agricultural contractors for the 2014 Contract Year[1] and FCWD has been notified of a supply reduction due to the critical year. Initially, Reclamation has estimated that only 40 percent of the Exchange Contractor's supply can be delivered even though their allocation in a critical year is 75% under the Exchange Contract. As a result, SOD water contractors have a need to find alternative sources of water to fulfill demands. The proposed transfers would allow FCWD and landowners in the Transfer Recipient Districts greater flexibility to manage limited water supplies.

[1] A Contract Year is from March 1 through February 28/29 of the following year.

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 a series of annual transfers over a five year period (2014 through 2018) of up to 7,500 AFY of FCWD's CVP Contract supplies to the Transfer Recipient Districts. Reclamation would continue to deliver CVP water to FCWD and the Transfer Recipient Districts pursuant to their CVP contracts.

2.2 Proposed Action

Reclamation proposes to approve a series of annual transfers over a five year period (calendar year 2014 through 2018) of up to 7,500 AFY of FCWD's CVP contract (Exchange Contract) supplies to the Transfer Recipient Districts. The proposed transfers would occur from April through December of each year that water is transferred and would not exceed the maximum of 37,500 AF over the five year period.

In order to make FCWD's CVP supplies available for the transfers, FCWD would pump up to 17 cubic feet per second (cfs) of groundwater (for a maximum of 36 AF/day) from four wells (see Figure 2-1) to meet in-district demands, in lieu of taking surface water deliveries dedicated to FCWD under the Exchange Contract. Well specifications include:

- 4 cfs well estimated to pump up to 2,500 AF (well #2)
- 5 cfs well estimated to pump up to 1,100 AF (well #3)
- 3 cfs well estimated to pump up to 2,600 AF (well #4)
- 5 cfs well estimated to pump up to 1,300 AF (well #5)

The pumped groundwater would be discharged into FCWD's conveyance system, freeing up 7,500 AF of CVP water under the Exchange Contract to be delivered to the Transfer Recipient Districts via the Delta-Mendota Canal (DMC) and the San Luis Canal (SLC).

Groundwater from Wells #2 through #4 would be directly discharged into FCWD's Intake Canal and would not enter Mendota Pool. Groundwater from Well #5 would be directly discharged into Mendota Pool, where it would then enter FCWD's Intake Canal for internal distribution to its landowners (see Figure 2-1).



Figure 2-1 Firebaugh Canal Water District's Wells Proposed for Groundwater Pumping

2.2.1 Environmental Commitments

Reclamation, FCWD, and the Transfer Recipient Districts would 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.

Table 2-1 Environmental Protection Measures and Commitments

Resource	Protection Measure
Water Resources	FCWD and their landowners would follow the policy entitled "*Firebaugh Canal Water District Water Transfer Policy*." A copy of the policy is attached to the Exchange Contractors' AB3030 groundwater management plan (Appendix A).
Biological Resources	Groundwater from Well 5 would only be discharged into Mendota Pool when flow in Fresno Slough is to the south.
Biological Resources	Well water with Total Dissolved Solids (TDS) concentrations greater than 2,000 milligram per liter (mg/L) would not be pumped into the Mendota Pool. During the fall months, when there is reduced flow in the Mendota Pool and water quality at the Mendota Wildlife Area is most critical, well water with TDS higher than 1,200 mg/L TDS will not be pumped into Mendota Pool.
Biological Resources	Selenium in well water pumped into Mendota Pool would not exceed 2.0 microgram per liter (µg/L).
Biological Resources	No native or untilled land (fallow for three consecutive years or more) may be cultivated with CVP water without additional environmental analysis and approval.
Biological Resources	As described in Section 3.2.2, SLWD would not deliver CVP water to

Resource	Protection Measure
	developments or other habitat conversions without evidence of Endangered Species Act compliance. SLWD has committed to this requirement (see Appendix B).
Various Resources	No new construction or modification of existing facilities may occur in order to complete the Proposed Action.
Various Resources	The Proposed Action cannot alter the flow regime of natural waterways or natural watercourses such as rivers, streams, creeks, ponds, pools, wetlands, etc., so as to have a detrimental effect on fish or wildlife or their habitats.
Various Resources	The Proposed Action must comply with all applicable Federal, State and local laws, regulations, permits, guidelines and policies.
Various Resources	The Proposed Action would not increase or decrease water supplies that would result in development.

Section 3 Affected Environment and Environmental Consequences

The areas in which impacts may occur are the same as those analyzed in EA-12-006 and include the CVP service area boundaries of FCWD, the Transfer Recipient Districts, as well as the DMC and SLC (Figure 3-1).

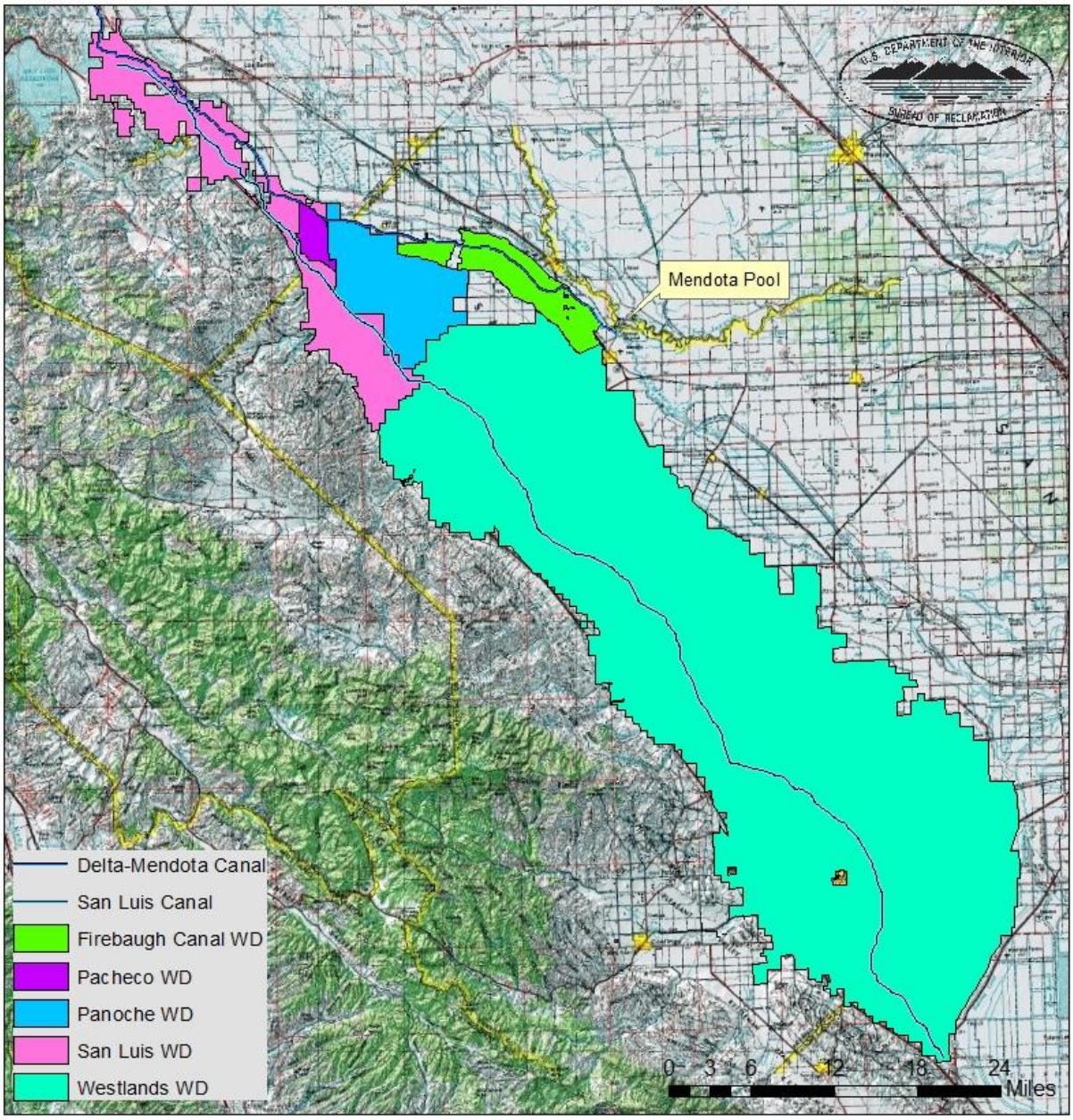


Figure 3-1 Proposed Action Area

The environmental impacts analyzed within Section 3 of EA-12-006 are still valid and adequately assesses the environmental effects from this Proposed Action, which is hereby

incorporated by reference. Potential impacts to the following resources were re-considered as a result of this proposal and were still found to be minor. Brief explanations of impacts are provided in Table 3-1.

Table 3-1 Resources Eliminated from Further Analysis

Resource	Reason Eliminated
Land Use	FCWD and the Transfer Recipient Districts would not change historic land and water management practices under the Proposed Action. FCWD's overall water supply would not change and irrigated acreages and crop mixes would remain the same. FCWD's CVP water would move through existing facilities for delivery to lands within the Transfer Recipient Districts for use on existing crops. The water would not be used to place untilled or new lands into production, or to convert undeveloped land to other uses.
Cultural Resources	The Proposed Action would facilitate the flow of water through existing facilities to existing users. As no construction or modification of facilities would be needed in order to complete the Proposed Action, Reclamation has determined that these activities have no potential to cause effects to historic properties pursuant to 36 CFR Part 800.3(a)(1). See Appendix C for Reclamation's determination.
Indian Sacred Sites	The Proposed Action would not limit access to or ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites.
Indian Trust Assets	The Proposed Action would not impact ITA are there are none in the Proposed Action area. See Appendix D for Reclamation's determination.
Socioeconomics	The Proposed Action would have beneficial impacts on socioeconomic resources with the Transfer Recipient Districts as the transferred water would be used to help sustain existing crops and maintain farming within the districts. There would be no adverse socioeconomic impacts within FCWD as water needs would still be met and agricultural practices would be unchanged.
Environmental Justice	The Proposed Action would not cause dislocation, changes in employment, or increase flood, drought, or disease nor would it disproportionately impact economically disadvantaged or minority populations.
Air Quality	Two of FCWD's wells have electric motors which do not produce emissions that impact air quality. The other two wells have diesel engines; however, both wells meet the California Air Resources Board and Environmental Protection Agency Tier 3 specifications. As such, the engines meet the emission requirements for compression engines as outlined in San Joaquin Valley Air Pollution Control District Rule 4702, Section 5.2.4. Projected emissions from these engines would be below the *de minimis* amounts specified in 40 CFR § 93.153. As such a determination of general conformity under the Clean Air Act is not required.
Global Climate and Energy Use	The Proposed Action may result in the direct emissions of greenhouse gases through the use of diesel fuel when the two wells with diesel pumps are used in a given year. However, the greenhouse gases generated would be extremely small compared to sources contributing to potential climate change. The total greenhouse gas emissions from the diesel pumps would be far below the 25,000 metric tons per year threshold for reportable greenhouse gas emissions. Use of the two electric pumps would not result in the power plant exceeding operating capacity or its' emissions permit.

3.1 Water Resources

3.1.1 Affected Environment

The affected environment for FCWD, the Transfer Recipient Districts (except for Pacheco), Mendota Pool, and CVP conveyance facilities is the same as described in Section 3.1 of EA-12-006. Rather than repeating the same information that has been incorporated by reference into this document, the affected environment and environmental consequences section in this EA will focus on updates or changes.

Pacheco Water District

Pacheco is located on the western edge of the San Joaquin Valley near the city of Los Banos in both Merced and Fresno Counties and is approximately 4,730 acres in size. Currently, all CVP water for the district is supplied from the SLC, with the DMC serving as a backup source. In 1999, neighboring Panoche assumed all management responsibilities for Pacheco.

Firebaugh Canal Water District

FCWD's annual Exchange Contract CVP supply is 85,000 AF in non-critical years and 58,000 AF in critical (drought) years. FCWD provides water to 22,600 irrigable acres in northwestern Fresno County, extending from just north of the City of Mendota to northwest of the City of Firebaugh (Figure 3-1).

FCWD is underlain by a shallow saline aquifer which is high in TDS, boron, and selenium, all of which are considered constituents of concern by the Central Valley Regional Water Quality Control Board. The shallow water table is managed through on-farm subsurface (tile) drainage systems and regional deep drains, which intercept seepage from irrigation and unlined canal systems. FCWD pumps approximately 4,000 AFY from shallow groundwater wells to reduce the production of subsurface drainage within the watershed. As FCWD lies within the Grassland Drainage Area, it is a participating agency in the Grassland Bypass Project, which consolidates subsurface drain water from the Grassland Drainage Area into a single channel (Grassland Bypass Channel) and into the San Luis Drain, where it is discharged into Mud Slough, approximately eight miles upstream of the San Joaquin River.

Groundwater in FCWD has generally not been pumped for direct irrigation use without mixing with surface water supplies due to high salinity concentrations; however, Wells #2, #3, #4, and occasionally #5 have been pumped since 2008 for use in-district under a similar transfer program as the Proposed Action (Table 3-1). None of the wells were used 13 years prior to 2008 and all pump from a relatively shallow level above the Corcoran clay (180 to 240 feet below ground surface).

Table 3-2 Transfer Water Pumped Since 2008 in Relation to SOD CVP Agricultural Allocations

Year	SOD CVP Agricultural Allocation (% of Contract Total)	Transfer Quantity Approved (AF)	Quantity Actually Pumped (AF)
2013	20	5,000	4,730
2012	40	5,000	2,838
2011	80	5,000	762
2010	45	5,000	1,672
2009	10	4,400	4,251
2008	40	3,500	2,417
Average	**39**	**4,650**	**2,778**

Three of the four wells proposed for pumping under the Proposed Action discharge directly into FCWD's Intake Canal and would not leave the District's water conveyance system. Water quality testing by FCWD indicate that the three wells (Well #2, #3, and #4) do not have TDS, selenium, or boron concentrations that would harm in-district uses. Well #5 is the only well that would pump into Mendota Pool prior to entering the Intake Canal. Results from water quality

testing of this well in 2014 are included in Appendix E. TDS for this well was approximately 956 mg/L, boron was 0.66 mg/L, and selenium was non-detect by a detection method of no more than 1 µg/L.

Subsidence

Land subsidence is caused by subsurface movement of earth materials. Principal causes of subsidence within the San Joaquin Valley include: aquifer compaction due to groundwater pumping, hydrocompaction caused by application of water to dry soils, and oil mining (Poland and Lofgren 1984). Large withdrawal of groundwater within the San Joaquin Valley between the 1920s and 1960s for agricultural irrigation caused significant overdraft within the central west side of the valley and most of the southern valley causing substantial land subsidence within those areas (Poland and Lofgren 1984). Importation of surface water from the CVP and State Water Project decreased the rate of groundwater withdrawal allowing aquifer levels to recover subsequently reducing subsidence rates (Poland and Lofgren 1984, USGS 2013). Recently, groundwater pumping rates have increased throughout the San Joaquin Valley due to regulatory and drought-related curtailments placed on water deliveries from the CVP and State Water Project resulting in water level declines and renewed compaction (USGS 2013).

In 2013, the U.S. Geological Survey (USGS), in cooperation with Reclamation and the San Luis Delta Mendota Water Authority, published a Scientific Investigations Report (2013-5142) which assessed land subsidence and water levels in the vicinity of the DMC from 2003-2010 (USGS 2013). Analysis of land surface deformation determined that the northern portion of the DMC was relatively stable between 2003-2010 but that the area around Checks 15-21 (below O'Neill Forebay to the Mendota Pool) was part of a large area of subsidence located south of the town of El Nido indicating a shift northeast of the area of maximum subsidence previously recorded for 1926-1970. Approximately 80 millimeters (0.26 feet) of subsidence was recorded at Mendota between 2004 and 2010 with the majority (0.23 feet or 70 millimeters) occurring after 2006, a rate of nearly 0.066 feet (20 millimeters) per year. The vast majority of compaction within this area was determined to be beneath the Corcoran Clay layer (USGS 2013).

Various entities, including Reclamation, USGS, California Department of Water Resources (DWR), San Luis Delta-Mendota Water Authority, and the Exchange Contractors have monitored subsidence in the Mendota Pool area. In addition, the Mendota Pool Group has collected subsidence data for the area as part of their exchange program with Reclamation. Their data indicate that shallow wells do not substantially contribute to inelastic subsidence (defined as a permanent reduction in aquifer capacity). Their most recent report indicates that inelastic compaction in the Mendota Pool area for 2012 was 0.01 feet above and 0.089 feet in and below the Corcoran clay layer (Luhdorff & Scalmanini and Kenneth D. Schmidt and Associates 2013).

3.1.2 Environmental Consequences

No Action

Under the No Action Alternative Reclamation would not approve the proposed series of annual transfers over the five-year period between FCWD and the Transfer Recipient Districts. Reclamation would continue to convey and deliver CVP water to FCWD and the Transfer Recipient Districts pursuant to their respective CVP contracts as water is available. FCWD's CVP water would continue to be used in FCWD to meet in-district irrigation demands or for

other water transfers as it has in the past. Groundwater pumping may be needed due to current hydrologic conditions but would require blending to reduce salinity similar to what would be needed under the Proposed Action. No additional groundwater would be pumped due to this project.

Without the Proposed Action, the Transfer Recipient District's options to mitigate the current surface water supply deficits would be limited. Landowners in the Transfer Recipient Districts that have available groundwater supplies would likely pump groundwater or acquire other surface water supplies in order to meet water supply needs. Landowners may also need to abandon crops or fallow lands beyond what has been part of their historic practice if additional water supplies cannot be found.

Proposed Action

Under the Proposed Action, landowners in FCWD would pump groundwater in order to transfer a like-amount of FCWD's CVP water to the Transfer Recipient Districts. Similar to the No Action alternative, additional groundwater pumping may be needed due to current hydrologic conditions. Increased groundwater pumping could reduce water levels further and increase rates of subsidence in an area that has compacted approximately 0.23 feet between 2004 and 2010 (USGS 2013). However, as described previously, the wells that would be pumped are all from a relatively shallow level above the Corcoran clay which has contributed only a fraction of the increased compaction rates within the Mendota Pool area as the vast majority has been determined to be beneath the Corcoran Clay layer (USGS 2013). Further, specific environmental commitments have been included in Section 2.2.1 in order to minimize potential impacts to groundwater levels. Following these commitments would maintain safe yield in the groundwater basin.

CVP and State Water Project facilities would not be impacted as the transferred water must be scheduled and approved by Reclamation and DWR. No natural streams or water courses would be affected since no additional pumping or diversion that would not have happened under the No Action Alternative would occur.

The transfer of up to 7,500 AFY over the five-year period would offset a small portion of the surface water supply deficits annually faced by the Transfer Recipient Districts which would benefit some individual growers. Additional, surface water supplies may reduce the amount of groundwater that would need to be pumped in order to meet demands.

Water supplies in FCWD would continue to meet agricultural water demand despite the transfer as the pumped groundwater would be used in district to meet demands.

Environmental commitments to protect water quality in the Mendota Pool have been incorporated into the Proposed Action as outlined in Table 2-1. These commitments would ensure that no adverse impacts to water quality would occur.

Cumulative Impacts

Cumulative impacts result from incremental impacts of the Proposed Action or No Action alternative 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 or the No Action alternative, the incremental effect of both alternatives were examined together with impacts from past, present, and reasonably foreseeable future actions in the same geographic area.

Reclamation has reviewed existing or foreseeable projects that could affect or could be affected by the Proposed Action including those described in EA-12-006. 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 aim to 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. Each water service transaction involving Reclamation undergoes environmental review prior to approval.

The Proposed Action and other similar projects would not hinder the normal operations of the CVP and Reclamation's obligation to deliver water to its contractors or to local fish and wildlife habitat. Since the Proposed Action would not involve construction or modification, nor interfere with CVP or State Water Project operations, there would be no cumulative impacts to existing facilities or other contractors.

FCWD would avoid any cumulative adverse water quality impacts involving groundwater delivered in-district by following the commitments outlined in Table 2-1. Since the transferred water delivered via the DMC and SLC would be CVP supplies and would therefore be the same as what is already delivered, there would be no cumulative impacts to water quality for the Transfer Recipient Districts.

As FCWD would follow the Exchange Contractors' AB3030 Groundwater Management Plan and restrict pumping to below the safe yield and all wells would be above the Corcoran Clay layer, there would be no cumulative impacts to groundwater levels or subsidence in the Exchange Contractors' service area as a result of the Proposed Action. Since the transfers may slightly reduce groundwater pumping in the Transfer Recipient Districts, the Proposed Action may reduce the risks of groundwater overdraft and subsidence in their respective areas. As a result, the Proposed Action would have no potential adverse cumulative impacts.

These findings indicate that there may be slight beneficial effects, but no adverse cumulative impacts to water resources resulting from the Proposed Action.

3.2 Biological Resources

3.2.1 Affected Environment

Table 3-3 was prepared using a list obtained on February 26, 2014 by accessing the U.S. Fish and Wildlife Service (Service) Database: http://www.fws.gov/sacramento/es_species/Lists/es_species_lists-form.cfm (Document No. 140226043802). The database was last updated on September 18, 2011. The list is for Merced Fresno, and Kings Counties.

Table 3-3 Federal Status Species Potentially Found in the Proposed Action Area

Species	Federal Status under the ESA	Determination of Effect under ESA	Summary Basis for ESA Determination
AMPHIBIANS			
California red-legged frog (*Rana draytonii*)	T, CH	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
California tiger salamander (*Ambystoma californiense*)	T, CH	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
Mountain yellow legged frog (*Rana muscosa*)	Proposed E, Proposed CH	No Effect	Does not occur in Proposed Action Area.
Sierra Nevada yellow legged frog (*Rana sierrae*)	PE	No Effect	Does not occur in Proposed Action Area.
Yosemite toad (*Anaxyrus canorus*)	Proposed T, Proposed CH	No Effect	Does not occur in Proposed Action Area.
BIRDS			
California condor (*Gymnogyps californianus*)	E	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
western snowy plover (*Charadrius alexandrinus nivosus*)	T	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	Proposed T	No Effect	Might fly over but would not stop in area of effect.
FISH			
Central Valley spring-run chinook salmon (*Oncorhynchus tshawytscha*)	T	No Effect	No effect on natural stream systems.
Central Valley steelhead (*Oncorhynchus mykiss*)	T, CH	No Effect	No effect on natural stream systems.
delta smelt (*Hypomesus transpacificus*)	T, CH	No Effect	No downstream effects from action.
Green sturgeon, North American Distinct Population Segment (DPS) (*Acipenser medirostris*)	T	No Effect	No downstream effects from action.
Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*)	T	No Effect	Does not occur in Proposed Action Area.
Owens tui chub (*Gila bicolor snyderi*)	E	No Effect	Does not occur in Proposed Action Area.
Paiute cutthroat trout (*Oncorhynchus clarki seleniris*)	T	No Effect	Does not occur in Proposed Action Area.
Sacramento River winter-run chinook salmon (*Oncorhynchus tshawytscha*)	E, CH	No Effect	No effect on Sacramento-San Joaquin Delta.
South Central California steelhead (*Oncorhynchus mykiss*)	T	No Effect	Does not occur in Proposed Action Area.
INVERTEBRATES			
Conservancy fairy shrimp (*Branchinecta conservatio*)	E, CH	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
longhorn fairy shrimp (*Branchinecta longiantenna*)	E, CH	No Effect	Species does not occur in Proposed Action Area. No land

Species	Federal Status under the ESA	Determination of Effect under ESA	Summary Basis for ESA Determination
			use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	T	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
vernal pool fairy shrimp (*Branchinecta lynchi*)	T, CH	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
vernal pool tadpole shrimp (*Lepidurus packardi*)	E, CH	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
MAMMALS			
Buena Vista Lake shrew (*Sorex ornatus relictus*)	E, CH	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities. Critical Habitat does not occur in Proposed Action Area (Lemoore unit is outside WWD).
fisher (*Martes pennanti*)	C	No Effect	Does not occur in Proposed Action Area.
Fresno kangaroo rat (*Dipodomys nitratoides exilis*)	E, CH	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
giant kangaroo rat (*Dipodomys ingens*)	E	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
San Joaquin kit fox (*Vulpes macrotis mutica*)	E	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
Sierra Nevada bighorn sheep (*Ovis canadensis californiana*)	E	No Effect	Does not occur in Proposed Action Area.
Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*)	E	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
PLANTS			
California jewelflower (*Caulanthus californicus*)	E	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
Colusa grass (*Neostapfia colusana*)	T, CH	No Effect	Does not occur in Proposed Action Area.
Greene's tuctoria (*Tuctoria greenei*)	E, CH	No Effect	Does not occur in Proposed Action Area.
hairy Orcutt grass (*Orcuttia pilosa*)	E, CH	No Effect	Does not occur in Proposed Action Area.
Hartweg's golden sunburst (*Pseudobahia bahiifolia*)	E	No Effect	Does not occur in Proposed Action Area.
Hoover's spurge (*Chamaesyce hooveri*)	T, CH	No Effect	Does not occur in Proposed Action Area.

Species	Federal Status under the ESA	Determination of Effect under ESA	Summary Basis for ESA Determination
Keck's checker-mallow (*Sidalcea keckii*)	E, CH	No Effect	Does not occur in Proposed Action Area.
Mariposa pussy-paws (*Calyptridium pulchellum*)	T	No Effect	Does not occur in Proposed Action Area.
palmate-bracted bird's-beak (*Cordylanthus palmatus*)	E	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
San Benito evening-primrose (*Camissonia benitensis*)	T	No Effect	Does not occur in Proposed Action Area.
San Joaquin adobe sunburst (*Pseudobahia peirsonii*)	T	No Effect	Does not occur in Proposed Action Area.
San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*)	T, CH	No Effect	Does not occur in Proposed Action Area.
San Joaquin woolly-threads (*Monolopia congdonii*)	E	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
succulent owl's-clover (*Castilleja campestris* ssp. *succulenta*)	T, CH	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities. Critical Habitat does not occur in Proposed Action Area.
REPTILES			
blunt-nosed leopard lizard (*Gambelia sila*)	E	No Effect	No land use changes would occur as a result of this action, no conversion of habitat, and no new facilities.
giant garter snake (*Thamnophis gigas*)	T	No Effect	No land use changes would occur as a result of this action, no adverse water quality changes in refuge water supply channels; no conversion of habitat, and no new facilities.

ESA: Endangered Species Act
E: Listed as Endangered
T: Listed as Threatened
CH: Critical Habitat designated for the species

The action area consists of agricultural fields that provide some habitat values for a few species listed above, particularly the San Joaquin kit fox. However there is routine disturbance due to on-going farming practices, and so even the San Joaquin kit fox would have very limited use of the area and would generally not be able to den there.

The giant garter snake can potentially be affected by low water quality, and in this portion of its range, the species is threatened with extirpation. Its status has been detailed in the biological opinion issued by the Service for the third use agreement for the Grassland Bypass Project (Service 2010). The biological opinion explains the risks that elevated selenium pose for the giant garter snake, and specifically states that snakes should not be exposed to water with selenium concentrations that exceed two parts per billion in order to avoid selenium toxicosis. Low quality groundwater would be an issue for the giant garter snake for any canal that serves as a water supply channel for Grasslands' wetlands. The only well involved in the Proposed Action that would discharge water into Mendota Pool is Well #5. A giant garter snake was found in the

Mendota Pool vicinity (Mendota Wildlife Area) in 2008 (Hansen 2008). The giant garter snake, because of extensive losses of suitable natural wetlands, now relies on rice fields in parts of its range; however, no rice is being grown in FCWD.

3.2.2 Environmental Consequences

No Action

Under the No Action Alternative, there would be no impacts to biological resources since conditions would remain the same as existing conditions.

Proposed Action

Most of the habitat types required by species protected by the Endangered Species Act do not occur in the Action area (see Table 3-3). The Proposed Action would not involve the conversion of any land fallowed and untilled for three or more years. In addition, the Proposed Action would not change the land use patterns of the cultivated or fallowed fields that do have some value to listed species or to birds protected by the Migratory Bird Treaty Act. Land within SLWD, which is considered by the Service and the California Department of Fish and Wildlife to be important for connecting kit fox populations to the south with those in the northern range, would be protected by the commitment made by the district (see Appendix B). Since no natural stream courses or additional surface water pumping would occur, there would be no effects on listed fish species. No critical habitat occurs within the area affected by the Proposed Action and so none of the primary constituent elements of any critical habitat would be affected.

The giant garter snake would be protected by the restrictions incorporated into the Proposed Action as outlined in Table 2-1. These restriction include the following: (1) well water from well #5 would only be pumped into Mendota Pool when flow in Fresno Slough is to the south, (2) well water with TDS concentrations greater than 2,000 mg/L would not be pumped into the Mendota Pool, (3) well water with TDS higher than 1,200 mg/L TDS would not be pumped into Mendota Pool during the fall months, when there is reduced flow in the Mendota Pool and water quality at the Mendota Wildlife Area is most critical, and (4) selenium in well water pumped into Mendota Pool would not exceed 2.0 µg/L. As described previously, and included in Appendix E, water quality data for Well #5 complied with these requirements in 2014.

The short duration of the water availability, the requirement that no native lands be converted without consultation with the Service, and the stringent requirements for transfers under applicable laws would preclude any impacts to wildlife, whether Federally listed or not.

Cumulative Impacts

As the Proposed Action is not expected to result in any direct or indirect impacts to biological resources, there would be no cumulative impacts.

Section 4 Consultation and Coordination

4.1 Public Review Period

Reclamation provided the public with an opportunity to comment on the Draft FONSI and Draft EA during a 30 day public review period. No comments were received.

4.2 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.

The short duration of the water availability, the requirement that no native lands be converted without consultation with the U.S. Fish and Wildlife Service, and the stringent requirements for transfers under applicable laws would preclude any impacts to wildlife, whether Federally listed or not. As such, 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.). Therefore, no consultation with the Service or with the National Marine Fisheries Service is necessary.

4.3 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 affect birds protected under the Migratory Bird Treaty Act. As such, Reclamation has determined there would be no take of birds protected under the Migratory Bird Treaty Act (16 U.S.C §703 et seq.).

Section 5 Preparers and Reviewers

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Section 6 References

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FINAL ENVIRONMENTAL ASSESSMENT (14-001)

FIREBAUGH CANAL WATER DISTRICT TRANSFER OF UP TO 7,500 ACRE-FEET PER YEAR OF CENTRAL VALLEY PROJECT WATER TO PACHECO, PANOCHE, SAN LUIS AND WESTLANDS WATER DISTRICTS

Appendix A
Exchange Contractor's AB3030 Groundwater Management Plan

April 2014

UPDATED 3030 GROUNDWATER MANAGEMENT PLAN FOR THE SAN JOAQUIN EXCHANGE CONTRACTORS

Prepared for:
San Joaquin River Exchange Contractors Water Authority
Los Banos, California

by
Kenneth D. Schmidt and Associates
Groundwater Quality Consultants
Fresno, California

February 2008

UPDATED 3030 GROUNDWATER MANAGEMENT PLAN FOR THE SAN JOAQUIN EXCHANGE CONTRACTORS

Prepared for:
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by
Kenneth D. Schmidt and Associates
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February 2008

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February 12, 2008

Mr. Steve Chedester
Executive Director
San Joaquin River Exchange
Contractors Water Authority
541 H Street
Los Banos, CA 93635

Re: Groundwater Management Plan

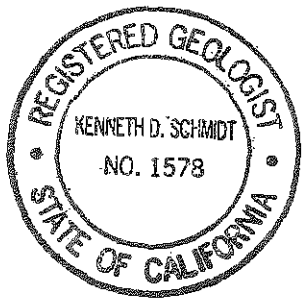
Dear Steve:

Submitted herewith is our report on Updated 3030 Groundwater Management Plan within the Exchange Contractors services area.

Sincerely yours,

Kenneth D. Schmidt
Geologist 1578
Certified Hydrogeologist 176

KDS/pe



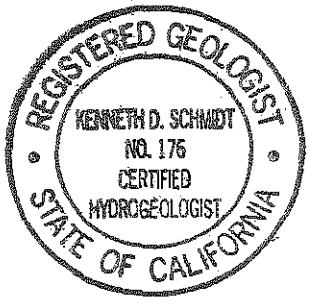


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UPDATE AB 3030 GROUNDWATER MANAGEMENT PLAN FOR THE SAN JOAQUIN EXCHANGE CONTRACTORS

INTRODUCTION

General

The San Joaquin River Exchange Contractors Water Authority ("Exchange Contractors" or "Authority") is a Joint Powers Authority organized under the Joint Exercise of Power Act. The member agencies are Central California Irrigation District ("CCID"), Firebaugh Canal Water District ("FCWD"), Columbia Canal Company ("CCC") and San Luis Canal Company ("SLCC"). Each of the entities is a holder in common of certain priority water rights, which are the subject matter of an agreement executed on February 14, 1968, between the United Sates of America ("Bureau of Reclamation, Department of Interior" or "USBR") and the Exchange Contractors. The title of the agreement is the "Second Amended Contract for Exchange of Waters" (Contract No. Ilr-1144), commonly known and referred to as the "Exchange Contract". The Exchange Contract confers upon the USBR the right to utilize the subject water so long as USBR delivers specified quantities of substitute water at specified locations via the Delta-Mendota Canal.

The Authority

The Authority is empowered to administer and protect the jointly held water rights under the Exchange Contract and power

incidental, necessary and convenient thereto, administer operation under the Division of Water Agreement and represent the Exchange Contractors in many water matters, including, but not limited to, operation of the Central Valley Project, conjunctive use of groundwater and surface supplies, water conservation, reclamation, transfers, drainage, management of the San Francisco Bay-Delta Estuary, environmental considerations and related legislation, litigation, and administrative proceedings. The Exchange Contractors Water Authority is committed to managing its ground and surface water resources to replenish and preserve its groundwater.

AB 3030

The State Legislature enacted AB 3030 (Costa), the Groundwater Management Act, in 1992. The act was codified as Part 2.75, commencing with Section 10750 of Division 6 of the Water Code and became effective January 1, 1993.

1. The act applies to all groundwater basins in the state, except any portion of a groundwater basin that is subject to groundwater management by a local agency or a water master pursuant to other provisions of law, court order, judgement, or decree, unless the local or water master agrees.

2. It provides that any local agency, whose service area includes an applicable groundwater basin, may by ordinance or resolution,

adopt and implement a groundwater management plan within a part or all of its service area in accordance with certain procedures.

The Role of Groundwater in the Exchange Contractors Water Operations

The conjunctive use of groundwater within the Exchange Contractors service area is required due to surface water delivery restrictions contained within the Exchange Contract. In addition, peak irrigation demands within certain areas exceed surface water distribution channel capacities. Groundwater is pumped and delivered into the system to make up capacity shortfalls.

1. The Exchange Contract provides both non-critical and critical surface water entitlement maximums on a per month basis, on a five-month basis (January, February, March, November, and December), and on a seven-month basis (April through October). In addition, monthly maximum instantaneous delivery flow rates are defined. Provisions are made to allow deliveries in excess of these rates if it can be done without detriment to the United States or its other obligations.

2. The Exchange Contract entitlement maximums and the instantaneous flow limits require conjunctive use of surface and groundwater to meet peak crop water demands during June, July, and August. While USBR has historically allowed instantaneous flow deliv-

eries (except in 1992) in excess of the limits, the five-month and seven-month entitlement maximums remain in effect. When USBR provides this flexibility, the Contractors must pump groundwater from District owned wells during April, May, and early June to "bank" sufficient Exchange Contract water for use during peak demands in June, July, and August. Groundwater pumpage from District owned wells must continue through June, July, and August, due to the seven-month Exchange Contract maximum for surface water. During the rest of the water year, there are sufficient quantities of surface water to meet crop water demands and provide necessary quantities for storage in the aquifer for use during the critical months.

3. During critical water years the necessity for conjunctive use of water increases. The seven-month surface water entitlement maximums decrease during critical water years. The five month maximums are not reduced.

4. Private well pumpage within the Exchange Contractors service area also fluctuates in response to the non-critical or critical surface supply. As shown in Table 1, the total groundwater pumpage within the Exchange Contractors service area averaged about 160,000 acre-feet per year from 1996 to 2006. The pumping ranged from about 80,400 acre-feet in 1998 to 212,000 acre-feet in 2004. Tiered water prices are analyzed yearly based on the annual "deep

TABLE 1-WELL PUMPAGE INSIDE AND OUTSIDE OF THE EXCHANGE CONTRACTORS SERVICE AREA

CCID's WELLS (NO.)	TOTAL NO. AB3030 OF WELLS SUB-(included in AREAS summary)		USING SAME METHODOLOGY FOR CALC'S 1996 REV.2002	1997 REV.2002	1998 REV.2002	1999 REV.2002	2000 REV.5/2002	2001	2002	2003	2004	2005	2006	96-05 AVERAGE (ALL WELLS) col. (h)	2006 DATA AS A PERCENT OF AVG. (% of col. h)	2006 PUMPAGE WELL LOCATION BRAKEDOWN ALL WELLS IN (CCID) (a)	WELLS OUT of (CCID) (b)	CCID's WELLS already included in col. a	DMC PUMP -ER'S /AREA (already incl'd)
12	59	A	9,859	12,667	4,669	11,010	11,597	14,337	11,609	13,016	17,585	6,886	3,768	11,353	33%	3,768			
7	105	B	9,833	10,531	5,625	12,560	16,096	17,629	12,104	16,767	17,091	7,372	7,424	12,500	59%	7,424		64	
4	35	C	12,907	13,002	4,009	10,218	13,284	14,266	9,900	14,343	21,382	11,687	12,614	12,489	101%	12,614		21	612
1	31	D	2,875	4,315	3,534	3,403	3,060	2,908	1,413	2,061	2,634	1,582	197	2,682	7%	197			
20	129	E	29,775	29,962	8,669	27,943	32,335	39,729	34,958	39,720	39,539	21,815	11,809	33,077	49%	11,809		1,751	
	6	F		378				2,707	304	804			349	499	84%	349			
3	19	G	5,903	9,869	539	5,473	5,859	6,929	7,549	7,449	10,997	1,994	1,295	6,306	17%	1,067		120	
	66	H	4,842	10,650	4,662	8,421	20,340	24,452	23,108	16,886	23,669	8,451	14,667	15,078	73%	14,667			
	16	I			727	6	22		19	19			1,192	79	1509%	1,192			
	36	J	259			46	13,633	16,841	11,490	11,130	17,567	4,810	39,661	7,515	378%	39,661			
	94	O/S A	12,719	16,139	10,337	16,167	18,361	19,933	3,787	21,889	14,634	15,559	11,057	15,373	72%	11,057			
	63	O/S B	11,477	12,496	3,741	11,077	7,419	9,459	1,877	3,528	15,184	3,126	7,601	8,396	92%	7,601			
	184	O/S C	27,161	41,362	15,831	32,340	35,419	53,466	14,466	24,917	28,448	24,057	30,597	30,603	108%	30,597			1,388
	2	O/S D																	
	19	O/S E	3,284	3,274	2,284	4,992	1,853	946	2,686	5,129	3,682	3,810	3,439	3,060	113%	3,439			
	25	O/S G	1,618	4,362	3,766	387	324	1,439	621	3,461	3,637	3,284	876	2,526	35%	876			
	2	O/S H																	
	9	O/S I	64	1,329	10	269				59				242					
	2	O/S J					1,667	2,637	3,609	3,607	3,668	1,153	3,439	1,673	206%			3,439	
	USBR EXCHANGE CONTRACT WATER YEAR STATUS :		normal	normal	normal	normal	normal	normal	normal	normal	normal	normal	normal	AVERAGE		(percent of 2006 pumpage) 29%	71%		
81	994	TOTALS->	133,276	166,730	80,404	144,361	121,669	204,446	144,084	198,332	212,013	121,661	128,019	159,780		37,283	91,636	1,955	2,000

81 = TOTAL NO. OF WELLS IN STUDY

1996 -> 2006 AVE. = 159,780 - 128,019 REPRESENTS A -19% (INCREASE OR DECREASE OVER THE PREVIOUS 10 YR. RUNNING AVG.)

NOTES:

1. PUMPAGE BY C.C.I.D. CONSUMERS IN THE CENTRAL CALIFORNIA IRRIGATION DISTRICT:
   37,283 - 1,955 (CCID) = 35,328 AF for 0.26 AF/AC
2. PUMPAGE OUTSIDE C.C.I.D. INCLUDES ALL DEEP WELLS WITHIN CITY LIMITS IN ADDITION TO DEEP WELLS USED FOR INDUSTRY AND
3. THIS ORIGINAL STUDY INCLUDED ALL KNOWN DEEP WELLS W RIVER FROM MARSHALL ROAD (CROWS LANDING) TO THE CAMP 13 AREA, INCLUDING THOSE IN THE SAN LUIS CANAL COMPANY AREA) THEN SOUTH FOR THE AREA BETWEEN THE SJR AND DELTA MENDOTA CANAL ON THE WES DAM AREA. A JULY 1998 REVISION TAKES THE SAN LUIS C.C. AND THE COLUIN ADDITION THERE ARE SOME 108 WELLS +- IN THE POOL PUMPER AREA AS OF 7/1/1998. C.C. AREA NOW INCLUDED.
4. C.C.I.D.'s (OWNED) WELL PUMPAGE IS INCLUDED IN THE "ALL WELLS IN CCID" TO THE 2001 STUDY, PREVIOUS YEARS OF 1996,1997, 1998, 1999 AND 2000 WERE REDONE THE SAME WAY.
5. ADDITIONAL PUMPAGE (NOT INCLUDED ABOVE) FROM THE MENDOTA POOL PUMPERS IS AS FOLLOWS:

1995 --	@NA	@NA	1997 --	39,431 AF	1999 --	24,899 AF	2001 --	45,139 AF	2003 --	15,636 AF	2005 --	10809 AF
1996 --	2,572 AF	2,572 AF	1998 --	2,624 AF	2000 --	37,622 AF	2002 --	34,125 AF	2004 --	15,505 AF	2006 --	3941 AF

6.

1995 --	0 AF	0 AF	1997 --	36,682 AF	1999 --	4,467 AF	2001 --	8,378 AF	2003 --	4,952 AF	2005 --	935 AF
1996 --	4,766 AF	4,766 AF	1998 --	12,728 AF	2000 --	3,531 AF	2002 --	3,637 AF	2004 --	3,099 AF	2006 --	2,060 AF

PAST C.C.I.D. CONSUMER PUMPAGE

for 2005 =	0.19	AF / AC	
for 2004 =	0.34	AF / AC	
for 2003 =	0.31	AF / AC	
for 2002 =	0.17	AF / AC	
for 2001 =	0.34	AF / AC	
for 2000 =	0.26	AF / AC-Y	
for 1999 =	0.27	AF / AC-Y	
for 1998 =	0.45	AF / AC-Y	
for 1997 =	0.30	AF / AC-Y	
for 1996 =	0.32	AF / AC-Y	
for 1995 =	0.00	AF / AC	
for 1994 =	1.00	AF / AC	
for 1993 =	0.83	AF / AC	

well" study. This mechanism has been effectively utilized to implement conjunctive use of ground-water from both private and District owned wells.

5. In the FCWD, the groundwater has become unusable for agricultural purposes because of high levels of total dissolved solids (TDS), boron, and selenium. FCWD is able to provide surface water capacity to the other Exchange Contractors in return for their cooperation in utilizing groundwater during periods in which FCWD needs amounts of water in excess of that available from its share of the Exchange Contract supply. As a result, groundwater within CCID, SLCC, and CCC is conjunctively used, not simply with the surface deliveries within the service areas for those specific entities, but also within service areas of the other entities, as the availability of surface water under the Exchange Contract is not sufficient to meet crop water demands.

Entrix, Inc. (2007) reported on the Environmental Assessment/ Initial Study for the Groundwater Pumping/Water Transfer Project for 25 consecutive years. The primary source of of the water to be transferred is pumpage of poor quality shallow groundwater in the area west and northwest of Firebaugh. The easterly and northeasterly migration of the poor quality groundwater above the Corcoran Clay has been identified as a major groundwater management concern in Madera County.

GENERAL CONDITIONS OF THE EXCHANGE CONTRACTORS GROUNDWATER BASIN

Figure 1 is the AB 3030 basemap of the Exchange Contractors service area. The service area is divided into sub-areas of generally similar aquifer, water supply, and drainage characteristics. Detailed evaluations of the groundwater conditions within the boundaries was performed by Kenneth D. Schmidt and Associates in 1997 ("Groundwater Conditions in and near Central California Irrigation District") and in 2007 "Update on Groundwater Conditions in the San Joaquin River Exchange Contractors Service Area". The evaluations included: 1) subsurface geologic conditions, 2) depth to water, water-levels elevations, the direction of groundwater flow, and water-level trends, 3) aquifer characteristics, based on numerous pump tests and aquifer tests on about two dozen wells, 4) land surface subsidence, and 5) groundwater quality in both the upper and lower aquifers.

DEMANDS ON THE GROUNDWATER BASIN

In addition to the yearly demands placed upon groundwater to meet the conjunctive use requirements to supplement the Exchange Contract surface water, other demands are placed upon the basin.

Surface Water Transfers

Each of the four entities comprising the Exchange Contractors have developed and adopted transfer policies as shown in Attachment

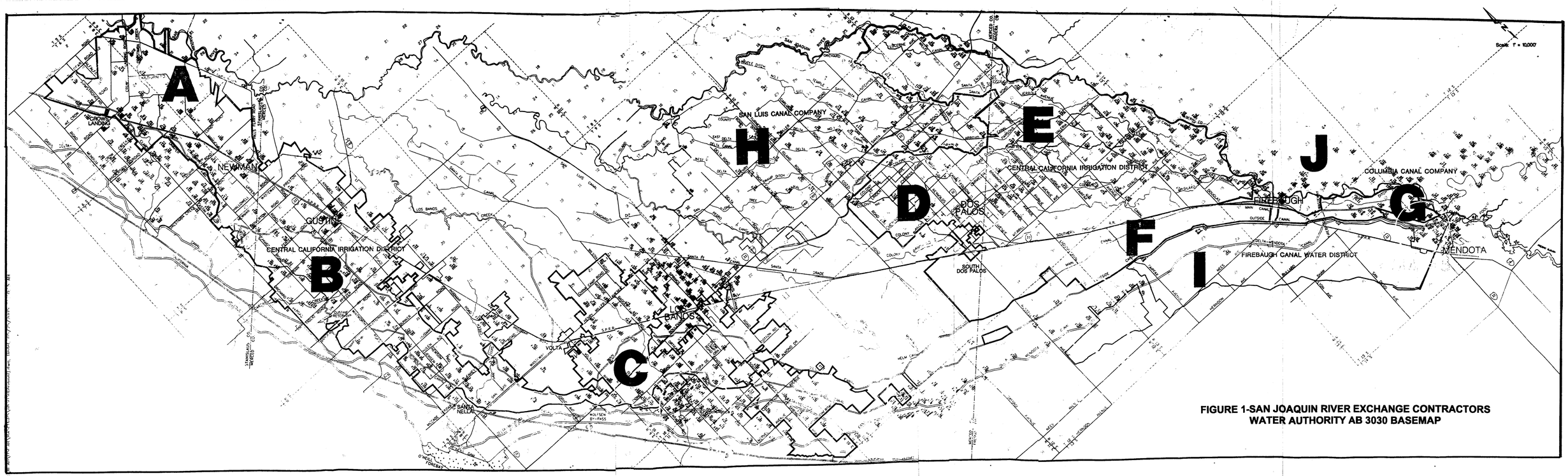


FIGURE 1-SAN JOAQUIN RIVER EXCHANGE CONTRACTORS WATER AUTHORITY AB 3030 BASEMAP

A. All water transfers have potential impacts on the aquifer. Three types of transfers are possible based on: 1) groundwater substitution, 2) fallowing of crops, and 3) conservation. Of these, groundwater substitution has the highest potential impact to groundwater. CCID, FCWD, and SLCC allow groundwater substitution type transfers, but the CCC does not allow groundwater substitution. Its policy states that "no transfer of groundwater to areas outside the Company service area will be approved and no transfer of surface water without fallowing the land to which such surface supply would have been delivered will be approved."

Groundwater Pumping into the Delta-Mendota Canal

The San Luis and Delta-Mendota Water Authority (SL&DMWA) has administered a program to allow groundwater pumping into the Delta-Mendota Canal for drought contingency. Figure 1, (the AB 3030 basemap), shows the groundwater pumping management areas developed by the SL&DMWA groundwater management committee. The potential impacts to the Exchange Contractors are 1) degradation of the surface water quality delivered through the Delta-Mendota Canal, and 2) land surface subsidence along the CCID outside canal and the Delta-Mendota Canal. High salinity and boron concentrations have been problems in many wells. For the most part, the pumped water is generally not suitable for use on crops without blending with the better quality surface water. Land surface subsidence along the

Outside Canal was discussed by KDSA (1997). The CCID is presently undertaking a five million dollar improvement project on the Outside Canal, to raise banks and replace structures due to subsidence. Subsidence along the Delta-Mendota Canal is shown in Figure 2.

Groundwater Pumping into the Mendota Pool

The Mendota Pool, on the San Joaquin River, is the location were the Exchange Contractors receive most of the substitute water under the Exchange Contract. For almost two decades, there has been concentrated groundwater pumping in the Mendota Pool area. The magnitude of the pumping depends in large part on the yearly allocations by the USBR to Central Valley Project agricultural contractors. In response to reduced allocations, groundwater pumped near the Mendota Pool is introduced into the Pool and either delivered to adjacent Central Valley Project agricultural contractors directly through pumping facilities or given credit for the groundwater pumped into the Pool and, in exchange, the USBR provides deliveries to Westlands Water District. The potential impacts of the pumping program are water quality degradation, well interference, and land surface subsidence affecting the Exchange Contractors gravity canal system headworks facilities and the Mendota Dam.

The Mendota Pool Group (MPG) transfer pumping began in 1989 to

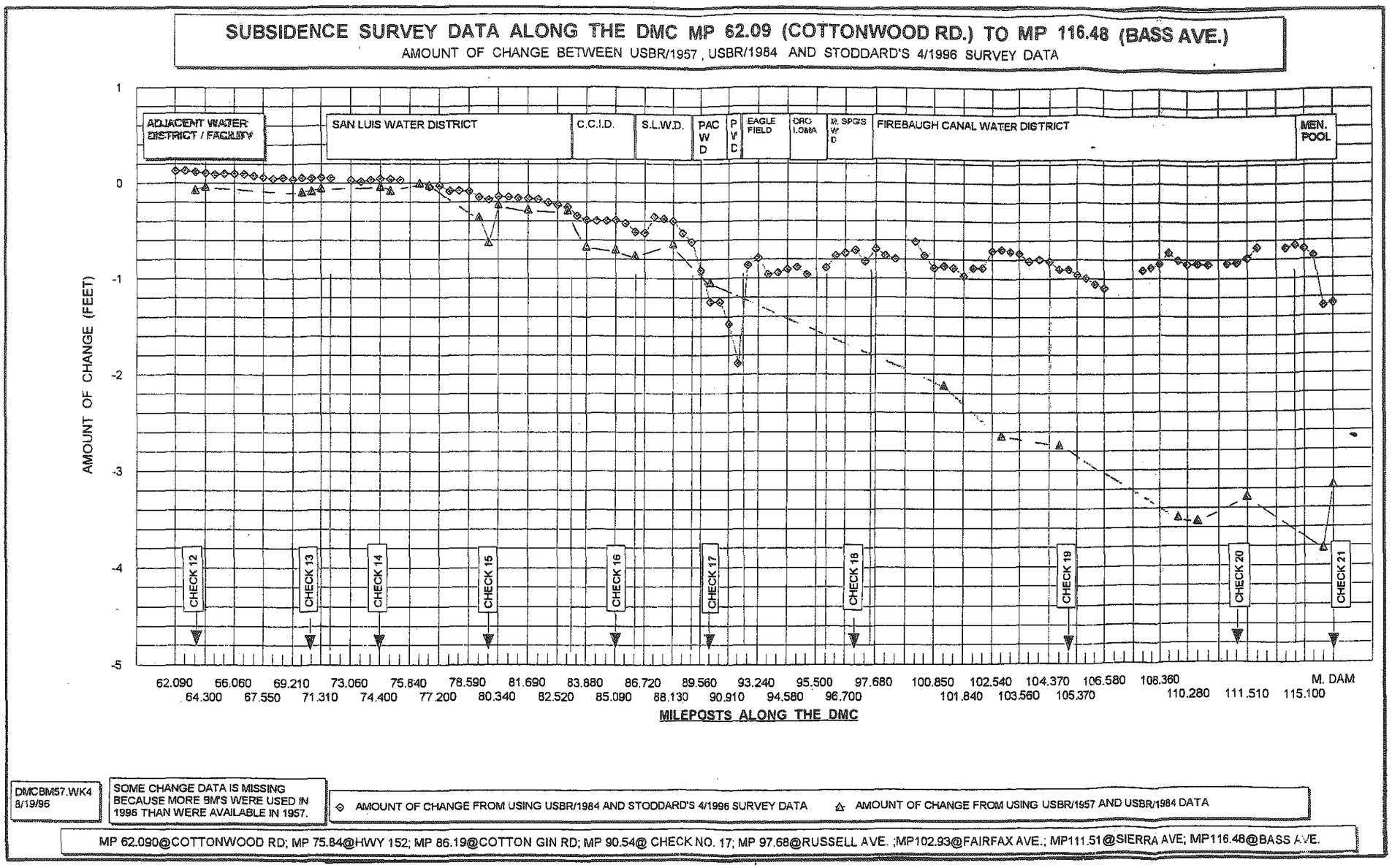


FIGURE 2-SUBSIDENCE ALONG THE DELTA-MENDOTA LAND

make up for some of the cutbacks in deliveries of Central Valley Project and State Water Project surface water during the drought. The greatest MPG transfer pumping was during 1991-1992 and 1994. There was little MPG transfer pumping between 1995 and 1999, except for a four-month period in 1997.

A pilot pumping and monitoring program was undertaken in 1999 to determine the impacts of MPG transfer pumping on water users within the San Joaquin River Exchange Contractors Water Authority (SJREC) and Newhall Land and Farming Company (NLF) service areas. Extensive monitoring of pumpage, water levels, water quality, and compaction was initiated in 1999 and continues to the present. This led to a settlement agreement, that provided for continued MPG pumping, constrained by the results of monitoring and other factors.

Annual reports are prepared on the results of the monitoring. The results of monitoring have been used to revise the pumping program to mitigate adverse impacts. For example, pumpage from the lower aquifer has been limited, primarily due to drawdowns and land surface subsidence.

Migration of Poor Quality Groundwater

Water-level elevation contours for the upper aquifer (above the Corcoran Clay) were provided by KDSA (1997 and 2007). These maps indicate that groundwater enters the upper aquifer from up-

slope areas along virtually all the west and southwest boundaries of the Exchange Contractors service area. Certain areas west and southwest of the Exchange Contractors boundaries contain poor quality groundwater. The areas include 1) areas recharged by creeks south of Los Banos Creek and north of Panoche Creek, 2) the area southwest of Firebaugh-Mendota, and 3) the area south of Orestimba Creek.

Urban Groundwater Pumpage

Urban groundwater issues facing the Cities within the Exchange Contractors service area were summarized in KDSA (1997). In addition, cooperative groundwater studies have been done during the past two decades by the CCID and the Cities of Mendota, Los Banos, Gustine, and Newman. The Mendota study was completed in February 1999. Studies in Los Banos were completed in 1991 and updated in 1998. Studies in Gustine and Newman were completed in 1992 and updated in 2001. High manganese concentrations in well water have been a problem in Firebaugh and Mendota. High salinity water was also a problem in Mendota, prior to several years ago. As a result of the Mendota study (KDSA, 1999), the City developed a new well field in the mid-2000's, to mitigate water quality degradation coming from the area west of Mendota. The City of Dos Palos developed a surface water supply because of the poor chemical quality of the groundwater. In and near Los Banos, Newman, and Gustine,

groundwater of suitable quality for public supply has been developed through test hole exploration programs. However, a number of potential well sites have been found to be unsuitable. Plans are to update the Los Banos study within the next year.

ELEMENTS OF THE PLAN

The elements of the original plan were divided into two categories. Implementation of each of the elements proceeded concurrently.

Monitoring, Data Acquisition, and Evaluation

This element is subdivided into 1) regional activities, and 2) site specific (being done to address specific groundwater issues).

Regional Activities

Overall or regional activities to be conducted by the Exchange Contractors include the following.

Coordination with Other AB 3030 Groundwater Management Plan and Cooperation. The Central Valley Project agricultural contractors located upslope of the Exchange Contractors service area have developed two regional groundwater management plans through the San Luis and Delta-Mendota Water Authority (Stoddard & Associates, 1996 a and b). As part of these plans, Stoddard & Associates (1999 a and b) prepared associated groundwater monitoring plans. Both of

the management plans are being updated in 2007. In order to monitor the larger connected groundwater basin, future regional monitoring would include a coordinated data gathering effort with the upslope areas. In addition, Madera County is developing an Integrated Water Management Plan for the area downgradient of the Exchange Contractors service area. This plan focuses on overdraft in non-Districted areas. A program will be pursued such that the necessary study is accomplished and water-level measurements and water sampling results will be coordinated and gathered by each respective agency and shared.

Water Levels. Water-level elevation maps will be prepared approximately every five years. Data gaps in the existing monitoring plan were filled in accordance to the recommendations contained in the KDSA 1997 report. As part of the 2007 update by KDSA, a water-level elevation and direction of groundwater flow map was prepared for the upper aquifer for Spring 2006. Significant changes from previous maps were discussed in the text. Sufficient data were not available to prepare an updated map for the lower aquifer for the entire service area for 2006.

Water-level hydrographs were provided for a number of wells in the KDSA 1997 report. These were evaluated for the period 1962-89, which was considered a representative long-term period. As part of this plan update, the CCID updated many of these hydrographs. The

KDSA 2007 hydrogeologic report update contains a detailed discussion by subarea of the water-level trends for 1962-2005.

Aquifer Characteristics. The Exchange Contractors have continued to obtain specific capacity values from pump tests for wells within the Districts. As part of the updated plan, a specific capacity map was prepared by CCID for the mid-2000's, and this was presented in the 2007 hydrogeologic report update. Updated maps for specific capacities will be prepared about every five years.

Pumpage. Annual measurements and estimates of pumpage have been continued. Pumpage has been determined for each subarea, and divided into the upper aquifer, the lower aquifer, and composite (from both aquifers). Table 1 provided a pumpage update through 2006.

Subsidence. Three compaction recorders now being operated in the area. One is at Yearout Ranch, southeast of Mendota, which is operated by CCID, as part of the MPG monitoring program. A second is the Fordel recorder, adjacent to the Mendota Airport, which is operated by the MPG. The third is along the DMC near Russell Avenue, which is operated by the SL&DMWA. Information on the first two recorders is provided in the annual monitoring reports for the MPG program.

In addition, the Scripts Institute has established a con-

tinuous land surface elevation monitoring station (CORS) at a site about one mile southeast of Mendota. This monitoring will provide additional information on subsidence near Mendota.

Groundwater Quality. At least every five years, water samples are obtained from numerous selected wells for analysis of key constituents. Maps will be periodically prepared to show the geographic distribution of selected constituents in the upper and lower aquifers. As part of the 2007 update, an updated map of electrical conductivity was prepared. This map was generally similar to the previous map, and evidence was presented that indicated the northeasterly flow of poor quality groundwater has continued in the Mendota-Firebaugh area. As part of the 2007 update, water quality hydrographs were prepared for electrical conductivity of water from district supply wells and other selected wells. These hydrographs will be updated every several years in the future.

Site Specific Activities

These activities are to be accomplished in response to specific groundwater issues. Many of the activities will be accomplished cooperatively with other entities or made a requirement of pumping program.

Surface Water Transfers. For well water substitution transfer request the following hydrogeologic items will be required:

1. Locations and types of wells in vicinity, including domestic and stock wells.

2. Subsurface geologic conditions, extent of confinement, and possibly impacted aquifers. Existing sections could be used if they are near the proposed project and representative of conditions at the project site.

3. Depth to water, direction of groundwater flow, and any changes that would occur. Existing water-level maps and hydrographs are expected to be suitable in most cases. However in areas where data gaps are present water-level measurements and preparation of local maps are expected to be necessary.

4. Long-term water-level trends and the status of groundwater overdraft.

5. Aquifer characteristics.

6. Potential for land surface subsidence, particularly where groundwater is confined.

7. Overall water budgets (consumptive use versus recharge) for the pre-existing situation for the proposes project.

8. Groundwater quality, identification of problem constituents, and the potential migration of poor quality groundwater.

9. Subsurface drainage problems and the possible beneficial impacts of the proposed project.

10. Drawdown projections due to the proposed project.

11. A technical report by a certified hydrogeologist including supporting tables, illustrations, and appendices. The report will document pre-existing conditions and evaluate possible hydrogeologic impacts of the proposed transfer.

Pool Pumpers. A process is now in place to monitor the effects of MPG pumping in order to monitor potential impacts from future pumping and in cooperation and participation with other entities. As discussed previously, annual reports on the results of monitoring are prepared.

Delta-Mendota Canal Pumpers. In order to monitor potential impacts from future pumping the following monitoring is needed.

1. Annual water-level maps for each zone being pumped.

2. Continuous water-level recorders.

3. Annual pumpage.

4. Annual reports of the compaction recorder located at Russell Avenue.

5. Water quality maps prepared every five years.

6. Water-level and quality hydrographs.

Cities. Focused groundwater quality studies will be periodically performed. In the case of Mendota, Newman, Gustine, and Los Banos, this will require periodic updates of the joint studies previously accomplished. Firebaugh will require a new study. Attachment B contains a copy of the sample MOU to be utilized outlining the scope of work and subdivision of costs.

Migration of Poor Quality Groundwater. As compilation and analyses of regional monitoring activities identify areas or pockets of migration of poor quality groundwater, more focused monitoring in these areas may be needed. Case by case evaluation of risk to the groundwater will be made, and site specific monitoring will be developed as necessary.

Water Banking. There is potential for water banking in the Exchange Contractors service area, exclusive of FCWD and the Camp 13 Drainage District. Water banking could involve direct recharge in basins or stream channels, or in-lieu recharge. In-lieu recharge generally involves delivering water to users who would otherwise have pumped groundwater. When pumping is decreased, water levels tend to recover. Later, groundwater is pumped and delivered to the

banking partner(s). The in-lieu type of recharge has been practiced for years in the Semitropic WSD, and is particularly applicable in areas where subsurface geologic conditions aren't favorable for intentional recharge.

Areas considered to have potential for direct recharge include parts of the Columbia Canal Water Co., where depth to the shallow groundwater is generally more than about 30 feet. There are several areas along the west side of the CCID where direct recharge by basins or stream channels may be possible. Included are the fans of Los Banos Creek and Orestimba Creek, where permeable deposits are present, groundwater salinity is relatively low, and depth to water is adequate to allow recharge.

Hydrogeologic studies are necessary to better delineate the storage space available and to develop well recovery programs in target areas. Other potentially competing activities, such as gravel mining, need to be carefully addressed. In some areas, such as parts of the Columbia Canal Co. service area, depth to the shallowest groundwater is not well known. In such areas, exploratory borings can be used to evaluate potential restricting layers above the water level and the depth to groundwater. Pilot percolation tests are normally done, using relatively small basins, to determine probable long-term percolation rates for larger basins. Mounding calculations can be done, once the transmissivity of the

shallowest saturated deposits is known, to determine the water-level rise expected due to various amounts of recharge.

In-lieu recharge normally involves expanding District surface water delivery facilities to areas previously served by groundwater pumpage. The banking partners normally pay for these facilities and in wet years their excess water is delivered to farmers who then decrease their groundwater pumpage. When the banking partners need water returned, it is pumped from wells and delivered to the banking partners, or exchanges of surface water supplies can also be used.

Development of Drought Contingency Strategies

Drought contingency strategies are necessary during times when multiple critical water years occur, or when the USBR cannot provide delivery capacity flexibility during the seven moth period. An itemized list of drought period procedures will be developed and adopted. Such a list might include:

1. Reducing irrigation demand peaks through water ordering strategies.

2. Purchase of private well water and an associated emergency notification and purchase procedure.

3. Maximum pumping from drainage wells and tailwater return pumps.

4. Borrowing space and or water from other Exchange contractors.

5. Provide economic incentives for growers to pump wells not plumbed into the canal system.

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APPENDIX A

WATER TRANSFER INFORMATION

SAN JOAQUIN RIVER EXCHANGE CONTRACTORS WATER AUTHORITY WATER TRANSFER POLICY

Adopted April 7, 2000
Adopted Revised Policy November 1, 2002
Adopted Revised Policy August 5, 2005

1. Background.

1.1 The San Joaquin River Exchange Contractors Water Authority (SJRECWA) is a joint exercise of powers authority formed and existing under California law. Its member agencies are Central California Irrigation District, San Luis Canal Company, Firebaugh Canal Water District, and Columbia Canal Company. These four entities are traditionally referred to collectively as the **Exchange Contractors**.

1.2 The **Exchange Contractors** hold pre-1914 water rights on the San Joaquin River. In order to facilitate the construction of the Central Valley Project, the **Exchange Contractors** and their predecessors entered into two contracts with the United States Bureau of Reclamation in 1939. The Purchase Contract conveyed excess San Joaquin River flows—the so called "high flows"—and reserved the first San Joaquin River flows—sometimes referred to as the "low flows"—to the **Exchange Contractors**. The Exchange Contract established the terms pursuant to which a substitute supply of water was to be delivered by the Bureau of Reclamation to the **Exchange Contractors** in lieu of their "low flow" diversions from the San Joaquin River. These agreements established the underpinnings for the Bureau of Reclamation to construct Friant Dam on the upper San Joaquin River and divert the river's natural flow north to Madera and Chowchilla through the Madera Canal and south into Kern County through the Friant-Kern Canal. The Exchange Contract specifies that so long as the **Exchange Contractors** are provided a quantified substitute supply of water, the **Exchange Contractors** will not exercise their pre-1914 right to divert water from the San Joaquin River. The Exchange Contract at Article 5a contemplates that most, if not all, of this substitute water will be delivered to the **Exchange Contractors** from the Sacramento River watershed, pumped from the South Delta, and conveyed by means of the Delta-Mendota Canal. The current Exchange Contract is the Second Amended Contract for Exchange of Waters, Contract No. Ilr-1144, executed February 14, 1968.

1.3 The **SJRECWA** was formed in 1993 to represent its four member entities in many water matters including issues related to water transfers.

1.4 In California, the concept of water transfers, also referred to as water marketing or water brokering, is considered by some to be a partial solution to the shortage of water. The underlying assumption is that market forces in a free market will reallocate water. In some circumstances, agricultural water users who manage a conjunctive use water resource area can, to some extent, provide flexibility which may, at times, facilitate transfers of water. The **Exchange Contractors** proactively manage their surface water, groundwater, and conserved water conjunctively to maximize its beneficial use.

2. Objective. The objective of this water transfer policy is to manage water transfers to provide a framework by which the **Exchange Contractors** manage water transfers on a sound scientific basis, and to provide a clear set of standards and guidelines that each transfer proposal must comply with. The approach is designed to (i) ensure that the quantity of water proposed for transfer is made available through technically sound methods and projects which are scientifically based and verifiable; (ii) provide sound analysis of potential water transfer impacts; (iii) properly develop and implement necessary mitigations; (iv) monitor on-going water transfers and water development projects to ensure that beneficial and conjunctive use objectives are met; (v) provide flexible and efficient use of available water resources; (vi) ensure that the water supply, operations, and financial condition of the **Exchange Contractors** and their water users are not unreasonably impacted, and third party impacts from the transfer are mitigated; and, (vii) establish, maintain and utilize a data bank that will be used to manage the **SJRECWA** AB 3030 Groundwater Management Plan.

3. Authority

3.1 A transfer of water is considered a beneficial use under state and federal law. (Water Code Section 1011; CVPIA Section 3405.)

3.2 The **Exchange Contractors** hold pre-1914 rights to appropriate water from the San Joaquin River. The California Legislature has declared that it is established policy of the State to facilitate the voluntary transfer of water and water rights. (Water Code Section 109.) The Costa-Isenberg Water Transfer Act adopted by the legislature in 1986 as Water Code Sections 470 and 475-484 provides that voluntary water transfers between water users can result in a more efficient use of water, alleviate water shortages and finds and declares that it is in the public interest to conserve all available water resources. Water transfers do not undermine the rights that are the basis of the transfer. Water Code Sections 1010, 1011, 1011.5, 1244, 1440, 1731, 1737 and 1745.07 were specifically added to provide protection to water right holders who transfer water.

3.3 The Bureau of Reclamation utilizes the water transfer authority provided for in CVPIA to facilitate Exchange Contract water transfers. Water transfers implemented in accordance with CVPIA Section 3405(a) are deemed by federal law to be a beneficial use of water.

4. Applicability. Proposals to transfer any water from the Exchange Contractors' service area are subject to the requirements of this policy.

5. Definitions. For purposes of this policy, "water district" shall mean any water district, irrigation district, municipality, federal water agency, state water agency, or similar entity that exists pursuant to federal or state law.

6. Criteria for Water Transfers

6.1 Basis for all water transfers.

6.1.1 The state water rights, that are the underpinning of the Exchange Contract, are owned by the individual Exchange Contractors' members. The federal contract rights pursuant to the Exchange Contract are similarly owned by the individual Exchange Contractors' members. Consequently, any transfer of water from the Exchange Contractors' service area must first be approved by the Exchange Contractors' member entity from which the water will be transferred and then by the SJRECWA.

6.1.2 The Exchange Contractors' member entities share a water right in common, have a single water master who schedules water deliveries to the member entities, and have adopted a single groundwater management plan. The Exchange Contractors actively manage their surface water, groundwater and conserved water resources conjunctively, and manage water application within their service area to minimize drainage discharges from their service area and to cope with regulatory requirements imposed by law. Thus, all proposals to transfer water must be submitted by an Exchange Contractors' member entity and by the SJRECWA on behalf of its member entities, and water transfer proposals shall not be accepted from individual landowners. An individual landowner who proposes a water transfer must submit the proposal to the landowner's member entity, and, if approved by the member entity, shall be submitted by the member entity on behalf of the individual landowner.

6.1.3 It is imperative to protect the member entity's water rights and to assure that no water right is assigned; therefore, only annually severable water

transfers will be considered.

6.2 Water transfer types.

6.2.1 All water transfers shall be proposed by an **Exchange Contractors'** member entity. Additionally, the individual entities may propose a transfer jointly with any or all of the member entities. A transfer of water proposed jointly by all of the member entities shall be handled as a **SJRECWA** water transfer.

6.2.2 Therefore, transfer proposals are limited to three types:

6.2.2.1 A transfer of water by the **SJRECWA** on behalf of its four member entities.

6.2.2.2 A transfer of water by an **Exchange Contractors'** member entity to another water district.

6.2.2.3 A transfer of water by an **Exchange Contractors'** member entity to a water district that is made on behalf of an **Exchange Contractors'** landowner who is entitled to receive Exchange Contract water.

6.3 Water to be transferred. Water that is subject to transfer may be from an **Exchange Contractors'** member entity's water entitlement allocated pursuant to the Exchange Contract Division of Water Agreement, or from a member entity's non-allocated water supplies.

6.4 Generation of transferable water. Transferable water can be generated by using standard methods of conservation, groundwater substitution, or fallowing depending on the special hydrologic conditions that exist within the service area where the water is being generated as determined in paragraph 6.6.

6.5 Transferees. Water shall only be transferred to a water district.

6.6 Technical standards. All water transfers are subject to the technical standards and criteria adopted by the individual entity that proposes the transfer, and the **SJRECWA**. The technical standards are attached hereto as Appendices.

6.7 Priority of Transfers. All transfers are subject to the following priorities:

6.7.1 First priority shall be given to transfers initiated by the SJRECWA on behalf of its four member entities, and/or a transfer by an Exchange Contractors' member entity that enables an individual landowner within the member entity's service area to transfer water to a CVP ag service contracting water district for their own use in that water district.

6.7.2 Second priority shall be given to transfers initiated by an Exchange Contractors' member entity.

6.7.3 Third priority shall be given to transfers proposed by an Exchange Contractors' member entity on behalf of one of its landowners.

6.7.4 For illustrative purposes, the attached Appendix "A" provides an example of how the priority system would be implemented under the following three scenarios: 1) the transfer demands are less than the transfer supply during a normal water year; 2) the transfer demands are greater than the transfer supply during a normal water year; and, 3) a critical water year.

6.8 Limitation on Quantity of Water Transferred. Each year, a maximum shall be imposed on the quantity of water that can be transferred out of the Exchange Contractors' service area. The maximum shall be based upon a water budget developed in the Exchange Contractors' service area on a sub-basin by sub-basin basis. Each year, as soon as practicable, and not later than the Exchange Contractors' November board meeting, the maximum transfer quantity for the upcoming water year shall be announced. The announced maximum shall not be changed upward or downward from the announced maximum unless clear and convincing scientific evidence supports the change. Transfers initiated by SJRECWA will not be permitted in a critical water year designated under the Exchange Contract.

6.8.1 Internal Allocation of Transferable Water: On an annual basis, any Exchange Contractors' member entity may assign any portion of their maximum percent allocation to one or more of the Exchange Contractors' member entities and this assignment will increase the recipient Member Entity's share of transfers in the classifications stated below. The baseline for determining the Exchange Contractors' member's maximum percent allocation is the 1978 Division of Water Agreement subject to modifications pursuant to Sections 6.8.2.1 and 6.8.2.2.

6.8.2 Transfers will be classified as: (i) conservation or groundwater

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6.7.2 Second priority shall be given to transfers initiated by an **Exchange Contractors'** member entity.

6.7.3 Third priority shall be given to transfers proposed by an **Exchange Contractors'** member entity on behalf of one of its landowners.

6.7.4 For illustrative purposes, the attached Appendix "A" provides an example of how the priority system would be implemented under the following three scenarios: 1) the transfer demands are less than the transfer supply during a normal water year; 2) the transfer demands are greater than the transfer supply during a normal water year; and, 3) a critical water year.

6.8 Limitation on Quantity of Water Transferred. Each year, a maximum shall be imposed on the quantity of water that can be transferred out of the **Exchange Contractors'** service area. The maximum shall be based upon a water budget developed in the **Exchange Contractors'** service area on a sub-basin by sub-basin basis. Each year, as soon as practicable, and not later than the **Exchange Contractors'** November board meeting, the maximum transfer quantity for the upcoming water year shall be announced. The announced maximum shall not be changed upward or downward from the announced maximum unless clear and convincing scientific evidence supports the change. Transfers initiated by **SJRECWA** will not be permitted in a critical water year designated under the Exchange Contract.

6.8.1 Internal Allocation of Transferable Water: On an annual basis, any Exchange Contractors' member entity may assign any portion of their maximum percent allocation to one or more of the Exchange Contractors' member entities and this assignment will increase the recipient Member Entity's share of transfers in the classifications stated below. The baseline for determining the Exchange Contractors' member's maximum percent allocation is the 1978 Division of Water Agreement subject to modifications pursuant to Sections 6.8.2.1 and 6.8.2.2.

6.8.2 Transfers will be classified as: (i) conservation or groundwater

transfers (80,000 AF maximum) or (ii) fallowing transfers (50,000 AF maximum). The income from each classification of transfer will be blended and distributed to the member entities in proportion to the amount of water contributed by each entity.

6.8.2.1 In regard to transfers based upon conservation or groundwater pumping, if a member entity elects not to utilize its share of the allocation or elects not to assign to another member entity a portion of its allocation, the unutilized portion of the allocation shall be made available to the other member entities in proportion to the Exchange Contractors' 1978 Division of Water Agreement.

6.8.2.2 In regard to fallowing transfers, if a member entity elects not to utilize their full allocation and elects not to assign their unused allocation to another member entity, that portion of the allocation of fallowing-based transfers shall not be allocated to other member entities for transfer.

6.9 Annual Establishment of Transferees and Maximum Quantities of Water to be Transferred to Each Transferee. Each year by no later than October 31st, the SJRECWA shall establish the transferees and maximum quantities of water to be transferred to each transferee. The water needed to meet these obligations will be in accordance with the transfer priorities established by Section 6.7.

6.10 Water Transfer Committee.

6.10.1 A SJRECWA Water Transfer Committee is established to review all transfer proposals that are submitted consistent with this policy. It will review and analyze the technical data upon which each transfer is based, and make a recommendation on each water transfer proposed. The membership of the committee will include the manager of each of the Exchange Contractors' member entities, and two members of the SJRECWA governing board, or a member's alternate, appointed by the President of the board. The committee may retain technical consultants.

6.10.2 The committee shall review each transfer proposal, and each approved transfer annually, to ensure that it meets the stated objectives, technical standards, and criteria of this policy.

6.10.3 Due to the fact that the **Exchange Contractors** and their landowners conjunctively use surface and groundwater resources, where a water transfer is proposed from lands that the committee believes will not participate fully in the conjunctive use program, the committee may limit a water transfer to the amount of groundwater used by the lands initiating the transfer so that those lands do not exceed annually their fair share of the safe yield.

6.10.4 The committee shall review each transfer proposal, and each approved transfer annually, to consider whether it is likely to cause unreasonable impacts to the overall water supply, water management operations, or financial condition of the transferor entity or its water users, and whether member entity impacts that result from the transfer will likely be mitigated.

6.10.5 The committee shall make a recommendation to the **SJRECWA** Board of Directors on each proposed transfer, and an annual recommendation for the continuation or termination of each approved transfer, based upon analysis of technical criteria developed pursuant to paragraph 6.6.

6.11 Water Transfer Fees, Mitigation Costs, and Water Transfer Proceeds.

6.11.1 Where a transfer is made by a **SJRECWA** member entity, the entity will allocate a portion of the income from the water transfer to conservation projects and/or water distribution and drainage facilities, or other similar projects and actions that benefit its water users.

6.11.2 Any Bureau of Reclamation, or state agency water transfer application and environmental assessment fee shall be the responsibility of the transferring entity.

6.11.3 The processing by **SJRECWA** of a water transfer will require the payment by the transferring entity of all costs associated with the transfer. Such cost shall include but not be limited to management and study costs associated with administration of the Transfer Policy. For example, where a transfer involves groundwater, the transferring entity will be responsible for the cost (i) to determine safe annual yield of groundwater, (ii) for monitoring required to analyze groundwater conditions both in terms of quantity and quality, (iii) the amount of applied water that recharges the groundwater or enters drainage systems, and (iv) to study and monitor for subsidence impacts.

6.11.4 The SJRECWA shall be the fiscal agent for all water transfers.

6.12 Environmental Requirements. The environmental review requirements of NEPA and CEQA must be complied with before the Exchange Contractors will process a transfer application and all such costs shall be born by the transferring member entity.

6.13 Public Hearing. The Exchange Contractors may conduct a public hearing to determine the impact of the proposed transfer. The transferor and transferee must attend the hearing if requested to do so by the Exchange Contractors or by the entity from which the transferor is entitled to receive water.

6.14 Action by SJRECWA Board of Directors. All water transfers must be approved by unanimous vote of the SJRECWA Board of Directors. A water transfer proposal along with the recommendation by the Water Transfer Committee will be considered by the SJRECWA Board of Directors, and the transfer approved, disapproved, or returned to the Water Transfer Committee for further action as directed by the Board.

APPENDIX "A"

Illustration of Transfer Policy Priority System

Annually the SJRECWA shall establish:

1. Annual Maximum – The maximum annual amount of water to be transferred from the SJRECWA developed on a sub-basin by sub-basin level.(section 6.8).

2. Demand – The maximum quantities of water to be transferred to each transferee shall be established by no later than October 31st of each year. (section 6.9).

3. SJRECWA Supply – The amount of water available under a SJRECWA transfer and/or a transfer by an Exchange Contractors' member entity that enables an individual landowner within the member entity's service area to transfer water to a CVP ag service contracting water district for their own use in that water district. First priority. (section 6.7.1).

4. Individual Entity Supply – The amount of water available under an individual entity transfer. Second priority. (section 6.7.2) .

5. Individual Entity on behalf of landowner supply – The amount of water available for an entity on behalf of a landowner, limited by the maximum demand. Third priority. (6.7.3)

The application of the priority system described in section 6.7 is limited to determining quantities of transfer demand to be met by each of water transfer types. It will be calculated as follows (section 6.9):

	TOTAL DEMAND
Less	***Amount available through SJRECWA initiated and/or Exchange Contractors' member entity that enables an individual within the member entity's service area to transfer water to a CVP ag service contracting water district for their own use in that water district (priority 1)***
Equals	***Amount available for priority 2 and priority 3***
Then	***Amount available through priority 2 and priority 3***
Less	***The amount of water available under an individual entity transfer (priority 2)***
Equals	***Amount available through priority 3***

Individual landowners will be notified of the amount of transfer demand available to be met by the third priority. They will be required to determine their level of participation (through fallowing as an example) as soon as possible.

To further illustrate the priorities, below are three types of water year scenarios:

NORMAL YEAR

100 % allocation to EC; demand is 95,000 af which exceeds Supply

Priority		Supply	Demand	Amount Transferred
1	SJRECWA/ dist. to dist. initiated	75,000	85,000	75,000
2	Exchange Contractor Entity Initiated	5,000	5,000	5,000
3	Exchange Contractor Entity Initiated on behalf of Individual	5,000	5,000	5,000
		85,000	95,000	85,000

Total amount transferred 85,000

NORMAL YEAR

100 % allocation to EC; demand is 65,000 af and is less than Supply

Priority		Supply	Demand	Amount Transferred
1	SJRECWA/ dist. to dist. initiated	75,000	65,000	65,000
2	Exchange Contractor Entity Initiated	5,000	0	0
3	Exchange Contractor Entity Initiated on behalf of Individual	5,000	0	0
		85,000	65,000	65,000

Total amount transferred 65,000 af

CRITICAL YEAR

75 % allocation to EC; demand is 25,000 af and is greater than Supply

Priority		Supply	Demand	Amount Transferred
1	SJRECWA/ dist. to dist. initiated	0	0	0
2	Exchange Contractor Entity Initiated	0	0	0
3	Exchange Contractor Entity Initiated on behalf of Individual	5,000	25,000	5,000
		5,000	25,000	5,000

Total amount transferred 5,000 af

CENTRAL CALIFORNIA IRRIGATION DISTRICT

WATER TRANSFER POLICY

Adopted: October 27, 1993
Revised: October 26, 2007

I. Transfers by Landowners within CCID:

The Central California Irrigation District ("District") under its Exchange Contract, with permission of the Bureau of Reclamation, will permit water transfers. Water to be transferred may be from individual allotment or non-allocated District supply.

a. The District will permit transfer of water from a Landowner within the District only to his or her owned land in another Recipient District.

b. "Landowner" shall mean the owner of the right through deeds or contracts of sale to possession of the property for farming purposes which contract must provide the right to control and utilize on the land the surface water provided by CCID upon that land. A lessee, regardless of the term of the lease, is not a Landowner for purposes of this policy, nor is a lessee who holds an option to purchase considered a Landowner for the purposes of this policy. The holder of a life estate entitling the person to possession and use of the land and the surface water provided by CCID upon that land shall be deemed a Landowner. If the land is owned by a corporation, trust, partnership, or other form of business entity, provided all other owners of that business entity consent in writing, a person holding an undivided interest may to the extent of that proportional interest be considered a Landowner of that percentage of the acreage, provided that the proposed land to receive the transfer is the same person or an entity holding title in which that individual holds a similar percentage interest. The parents or natural or adopted children or grandchildren of a Landowner will be treated as identical with the Landowner for the purposes of transfers because these ownership differences often arise from estate planning, governmental entitlement or similar requirements. A person who does not own that interest in land within CCID, and in addition, the interest in the land to which the water is to be transferred for at least one (1) calendar year prior to January 1 of the year in which the transfer is proposed to occur shall not be permitted to transfer water under the District programs until that ownership period has been complied with. If a Landowner owns the In-District land on January 1 of the year in which the transfer is proposed and the Landowner was the tenant upon the property in the previous full year and held a written option to purchase, the Landowner shall be treated as complying with this requirement. The District will not approve a transfer between entities of the Landowner's proportion of the surface water otherwise transferable unless all of the other holders of proportional interests of both the transferring land and the recipient land agree to be parties to the contract indemnifying, defending and holding the District harmless from any claims.

c. A "Recipient District" is (i) a district or mutual water company within the geographical area described in the Ten-Year Transfer Approval CEQA/NEPA process conducted by the San Joaquin River Exchange Contractors Water Authority (SJRECWA) and Bureau of Reclamation, (ii) a District or mutual water company overlying the same groundwater basin which is adjacent to CCID and which through direct connection well water can be delivered, and (iii) which district or mutual water company agrees in writing to comply with the terms and conditions of the transfer.

II. Types of Transfers:

CCID transfers conserved water for the benefit of all CCID Landowners. In addition, there are two (2) types of transfers possible involving individual Landowners:

a. CCID District Conservation Transfers: Conservation of irrigation water is a duty of all Landowners. Water conserved is transferred through District programs and the benefits of the transfer are shared by all District Landowners and water users. To the extent that CCID believes that through conservation and other means available the District will have water available that may be transferred from non-allocated supplies, the District may provide for that water to be transferred. The proceeds of those transfers will be utilized by the District in accordance with its policies regarding conservation loans and grants, payments of project costs, and disbursement of portions of the District water charges to growers and Landowners.

b. Transfer of Water Generated from Well Pumping: A Landowner who has a well upon his or her owned land may transfer by a credit well water pumped into a District owned or controlled facility, up to 3.0 acre-feet per acre for lands owned by that same Landowner in a Recipient District for use on land overlying the same groundwater basin. See "Rules Governing Pumping of Private Wells for Water Credits in Other Districts" for more details and requirements, including means of assuring water pumped will not harm other groundwater or surface water users. The water may be transferred to the Recipient District for use only on the Landowner's owned lands.

c. Transfer of Water Generated from Land Fallowing: A Landowner who wishes to fallow a specified portion of his or her land within CCID may apply to CCID to provide for the transfer of the amount of water that would be consumptively used upon those fallowed lands to lands owned by the same Landowner located in a Recipient District; provided the Landowner meets the requirements of the District's policy and its program, the water may be transferred to the Recipient District for use only on the Landowner's owned lands. The Landowner must comply with the District requirements of the program. See "Rules Governing Fallowing of CCID Land for Water Credit in Other Districts."

III. Conditions of Transfers:

The District shall strive to manage water transfers so that the water supply, operations, and financial condition of the District, the Exchange Contractors, and water users within the Exchange Contract service area are not unreasonably impacted. Before the District will consider a Landowner's written water transfer proposal to be complete, the Landowner will need to demonstrate:

(1) that the transfer does not unreasonably impact:

a. the quantity and quality of the water supply available to the District and its water users;
b. the quantity and quality of groundwater in the District and the Exchange Contract service area, or interrelated surface streams, or other groundwater supplies within the District and Exchange Contract service area;
c. the District's operations, including, but not limited to the ability of the District to meet its delivery obligations, obtain additional water supplies, and undertake conservation measures, exchanges, transfers, groundwater storage, or conjunctive use programs;
d. the District's financial condition and its cost of providing water service to its water users;
e. the appropriate maintenance practices regarding the fallowed land, if the proposal is to fallow lands;
f. the ability of the District or its water users to provide drainage to land including the ability to meet regulatory requirements relating to discharge of agricultural drainage; and
g. other relevant factors that may create an adverse financial, operations, or water supply impact on the District or its water users.

(2) that the Landowner has paid or made acceptable arrangements to pay, all costs associated with developing a complete written water transfer proposal, including District staff and attorney review necessary to process the transfer proposal.

(3) that the Landowner has paid, or made acceptable arrangements to pay, all necessary mitigation costs associated with the transfer including without limitation:

a. Studies to determine safe annual yield of groundwater, if the proposal is to pump groundwater and deliver that groundwater to the District for credit.
b. Monitoring and quantifying groundwater conditions both in terms of quantity and quality.
c. Funds to study and determine the amount of applied water which recharges the groundwater or enters drainage systems.
d. Funds to study and monitor for subsidence impacts.
e. Funds to study and monitor for fallowing impacts and guarantee that fallowing will not impact other growers and Landowners within the District and will not result in permanent abandonment of irrigation upon the fallowed lands.
f. Landowners requesting transfers based on groundwater pumping will be required to pay all costs of monitoring and quantifying groundwater conditions both in terms of quantity and quality. If it is discovered that detrimental quantity or quality conditions require a reduction in pumping amounts, the Landowner will be required to reduce, or curtail, pumpage of groundwater to protect both quality and quantity.

g. A Landowner proposing to fallow shall provide the monies to study and determine the amount of applied water which enters drainage systems which can be used by District or other Exchange Contractors.

(4) that the Landowner has paid, or made acceptable arrangements to pay, District water transfer conservation fees.

IV. Documentation and Quantities of Transfers.

1. All transfers which an individual Landowner wishes to make must be presented to the District for processing and processed only through the District utilizing the device of a written contract between the District and the Landowner (including the signature of all holders of interest in the land and the signature of any deed of trust holders or other secured parties upon the land or improvements, if necessary, which determination will be the Landowner's responsibility). The District will enter into a corresponding agreement with the Recipient District if the conditions of CCID are met regarding the transfer.

2. For fallowed land transfers the total water to be transferred by a Landowner shall not exceed the lesser of: (i) the water generated from fallowing 20% of the Landowner's total ownership within the District, or (ii) that quantity of water which is a Landowner's allocated share of the maximum amount of water which may be transferred through Landowner to the same Landowner fallowing program in a calendar year pursuant to restrictions enacted by the Exchange Contractors, CEQA and NEPA documents, or regulatory requirements such as the Bureau of Reclamation requirements, or (iii) that quantity of water which the District determines can be safely transferred without adversely impacting the quantity and quality of the water supply available to the District and its water users, including the quantity and quality of groundwater, whichever amount is less. The total water to be transferred shall be computed after subtracting from the total delivered water all transportation, evaporation, seepage, metering or measurement error and any amounts necessary to provide for agreements with other Exchange Contractors to relax monthly delivery limitations or similar agreements with other parties such as Grassland Water District, Department of Fish and Game, United States Fish and Wildlife Service, and the Bureau of Reclamation, and the total amount of water applied which is calculated to have historically entered the underground basins directly or indirectly through relaxation of well use.

   a. The District may elect not to apply the 20% limitation or may apply different limitations to a Landowner if the District determines that the land seeking to transfer water creates severe drainage quality conditions. Land with those conditions, proposed to be fallowed, may be provided a priority in participation in transfers.

   b. If District transfers together with Landowner-requested transfers exceed 20% of the water to be applied in the District, or such lesser amount that the District determines can be safely transferred without adverse impacts on the quantity and quality of the water supply available to the District and its water users including

the quantity and quality of groundwater or because of the limitations set forth in Paragraph 2 above, District may proportionately reduce, or curtail, the Landowner-requested transfers with consideration of whether drainage impacted lands should be entitled to any priority, to a level at which no more than 20% of the District consumed surface water as described in Paragraph 2 will be transferred.

3. Because the District Landowners conjunctively use groundwater replacing surface water for groundwater and storing groundwater for drought periods, and because the lands from which a fallowing or groundwater transfer is proposed will not participate fully in that conjunctive use program, the amounts of groundwater used by the lands initiating a transfer cannot exceed annually their fair share of the safe yield, assuming all other Landowners used their fair share of the safe yield. This will allow storage for drought periods by all lands overlying the basin or area. If the studies for such determination of safe annual yield do not exist, Landowners initiating transfers will be required to fund those studies by the District upon an equitable basis before a transfer may be processed. The equitable terms may include reimbursement of a portion of the costs of studies by other transferring Landowners who enjoy the use of the studies.

4. The District has adopted a policy entitled "Central California Irrigation District Rules Governing Pumping of Private Wells for Water Credits in Other Districts." A Landowner proposing to pump groundwater for credit in other Districts is directed to that policy for more specific conditions and requirements and that policy is incorporated herein as if set forth in full. The District has adopted a policy entitled "Central California Irrigation District Rules Governing Fallowing of CCID Land for Water Credit in Other Districts." Landowners are directed to that policy for more specific conditions and requirements, and that policy is incorporated herein as if set forth in full.

V. Recipient District Conditions and Requirements.

In order to avoid unreasonable impacts on the water supply, operations, and financial condition of the District and its water users, the District will not approve a water transfer proposal unless:

1. The Recipient District conducts a water conservation program that includes efficient water management practices, or is in compliance with an urban water management plan under Water Code Section 10610 et seq., or an agricultural water management plan adopted pursuant to Water Code Section 10800 et seq.; and

2. The Recipient District conducts a drainage program which assures that the water transfer will not cause a deleterious effect on lands downslope from any lands irrigated as a result of the transfer; and

3. The Landowner receiving the transferred water and the Recipient District demonstrate that the Landowner will not be dependent upon the transferred water supply at the end of the one (1) year term of the proposed transfer.

4. Transfers shall be submitted and approved only on a one-year basis by the District. The District has adopted a technical standard entitled "Maximum Quantity of Water Transferable from CCID Due to Fallowing," a copy of which is attached hereto and incorporated herein as if set forth in full. Fallowing transfers involve complex requirements and interrelationships between the San Joaquin River Exchange Contractors Water Authority, Bureau of Reclamation and CCID policies. Frequent changes in the policy should be anticipated by Landowners. CCID cannot guarantee that requirements will not change during a calendar year, but new requirements will not apply retroactively to fallowing transfers already approved by the Board of Directors of the District for that year.

V. District Hearings and Process.

1. The District staff will review each transfer in order to determine the impact of the proposed transfer on the water supply, groundwater, operations, and financial conditions of the District and its water users. A Landowner requesting a transfer will be required to deposit from time to time the amounts estimated to be expended in that review.

2. The District may conduct a public hearing to determine the impact of the proposed transfer. The Landowner and Recipient District shall attend the hearing if requested to do so by the District in order to respond to questions and comments regarding the impact of proposed water transfers.

3. If land use ordinances, general plan or other zoning conditions require the acquisition of use permits from the County, the necessary permits must be acquired prior to a Landowner's participation in such a transfer. All CEQA/NEPA requirements imposed by law in connection with that process shall be the responsibility of the Landowner, except that the District shall be the lead agency for CEQA purposes. The District must be consulted as an interested agency in any process in which the District is not the Lead Agency.

4. All NEPA requirements of the Bureau of Reclamation or any other federal agency shall also be complied with before the District processes the Landowner's application. To provide for the most rapid compliance with CEQA/NEPA requirements, the Landowner shall fund a cooperative joint EIR/EIS process with the County (if there are applicable land use permits required) together with the United States lead agency. If the County does not have land use jurisdiction, the District will be the lead agency for CEQA purposes and the Landowner will pay the cost of compliance by the District.

5. District transfers, including Landowner requests, shall be monitored at least annually and will be subject to modification, including restrictions or termination, in response to:

    a. Changes in applicable laws, regulations, contracts and court decisions.

    b. Changed or adverse environmental impacts or other circumstances that cause a transfer to result in impacts on the water supply, groundwater, operations, or

financial conditions of the District or its water users, or adjacent areas dependent directly or indirectly on District supply.

c. Restrictions or prohibitions by the USBR or other agencies exercising jurisdiction over any phase of the transfer.

6. The District will adopt a use fee schedule for processing these transfers. If it does so, the District will use fees from water transfers for conservation projects and rehabilitating District facilities for the benefit of its water users. The District will develop a use fee, or schedule of fees, as it determines appropriate, that will be levied by the District on all water transferred. Fees will be in the nature of a water conservation use fee and the District will use its share of the income from such fees for conservation projects within the District and for the rehabilitation of District facilities to reduce conveyance losses. It is the goal of the District, in implementing this policy, to ensure that revenues of the District generated by transfers are used for the improvement of its system and the improved management of its water supplies in order to ensure that the transfer can be sustained without adverse impact on District surface water and/or groundwater supplies. The use fee will be established by evaluating short and long term conservation and water management programs within the District that should be implemented and the cost of such programs. Fees shall be paid prior to the time the transfer is initiated or at such periodic times as is determined appropriate by the District in the case of long-term transfers.

7. The contract between the District and the Landowner shall provide for payment of all costs, expenses, water tolls, assessments, and all additional costs and expenses incurred by the District for consultants, staff, Board operations, and dislocations or reductions in economies of scale arising from the transfer. The Landowner shall be required to continue to pay all PMA and community ditch charges and similar operation, maintenance, repair and reconstruction costs necessary to avoid increased burdens upon neighboring Landowners not participating in transfers. These charges and expenses, including the costs of monitoring and enforcing these conditions of transfers, shall be adjusted and calculated from time to time by the District and if not paid, the Landowner-requested transfer shall not be permitted to continue.

8. The contract will provide, among other terms, for a requirement that any fallowed land be maintained at the cost of the Landowner in a condition that noxious weeds and pests are not permitted to be maintained upon the fallowed land, all air pollution requirements for suppression of dust and blowing objects are complied with, and the land is maintained in a condition in which the land may be returned to irrigated farming in the following water year, including maintenance of any facilities required for that use.

9. Included within the reimbursable costs to be paid by Landowner will be calculated value of power generation lost at the power plants located on the District's system by virtue of any water transferred which is not available for hydroelectric generation. Power costs will be estimated based on reasonable models of scheduled generation applied to then existing published power values.

10. The rules and regulations of the District will include a term that a Landowner-requested transfer which is not processed through the District in accordance with these policies and which is accomplished shall nevertheless be subject to each and every term and condition of these policies. Until the terms and conditions of these policies are substantially complied with, the Landowner shall be in violation of the District rules and regulations and will not be delivered water upon the lands from which the transfer is made or any other lands which the Landowner had an interest in upon the date of the transfer. The Landowner shall be provided a hearing prior to the imposition of the bar upon water service and if the District can set fees and charges which will compensate for the impacts upon the District system and water use within the District system, those fees and charges will be levied annually as a condition of water service rather than the prohibition upon water service.

11. Certain lands within the District are not eligible for fallowing or well water transfer programs. Those include lands which have converted from Second Class to Primary Use status and ten (10) years has not elapsed since that conversion.

CENTRAL CALIFORNIA IRRIGATION DISTRICT
RULES GOVERNING FALLOWING OF CCID LAND
FOR WATER CREDIT IN OTHER DISTRICTS

Adopted October 26, 2007

These Rules are a part of the Central California Irrigation District Water Transfer Policy. Reference to that Policy will be made in interpreting and applying these Rules related to proposals for transfer of water through fallowing of lands.

I. Eligibility for Fallowing Transfers.

1.0 Central California Irrigation District receives its surface water supplies from the Bureau of Reclamation pursuant to the Exchange Contract. The terms of the Exchange Contract limit the quantity of surface water delivered in accordance with a five-month/seven-month schedule, and further limit the monthly quantity of water so delivered. In addition, capacity limitations are provided upon delivery from the Bureau of Reclamation of the water rights water of the District.

1.1 Proposals to fallow land within CCID for credits of an amount of water in other Districts is contemplated within the Central Valley Project Improvement Act and may be arranged but requires the adoption of policies and practices. When fallowing is proposed for credits in certain water irrigation or Mutual Water Companies ("Recipient District") in which the Landowner proposing the fallowing owns the land upon which the water is proposed to be utilized as a result of the transfer, the Landowner shall comply with these Rules and policy.

1.2 Fallowing transfers may occur only from the Landowner who owns the fallowed land within CCID to land owned by that same Landowner within a Recipient District. As used herein, the word "Landowner" shall mean the owner of the right through deeds or contracts of sale to possession of property for farming purposes, which contract or deed must provide the right to control and utilize on the land the surface water provided by CCID upon that land. A lessee, regardless of the term of the lease, is not a Landowner for purposes of this policy, nor is a lessee who holds an option to purchase considered a Landowner for the purposes of this policy. The holder of a life estate entitling the person to possession and use of the land and the surface water provided by CCID upon that land shall be deemed a Landowner. For land either proposed to be fallowed or the land to which the water is to be transferred, the Landowner must obtain the written approval by the Lessee of those lands.

1.3 If the land is owned by a corporation, trust, partnership, or other form of business entity, provided all other owners of that business entity or beneficiaries consent in writing, a person holding an undivided interest may to the extent of that proportional interest be considered a Landowner of that percentage of the acreage, provided that the proposed land to receive the transfer is the same person or an entity holding title in which that individual holds a similar percentage interest. The District will not approve a transfer between entities of the Landowner's proportion of the surface water otherwise transferable unless all of the other holders of proportional interest of both the transferring land and the recipient land agree to be parties to the contract indemnifying, defending and holding the District harmless from any claim.

1.4 The parents or natural or adopted children or grandchildren of a Landowner will be treated as identical with the Landowner for the purposes of transfers because these ownership differences often arise from estate planning, governmental entitlement or similar requirements.

1.5 A person who does not own that interest in land within CCID, and in addition, the interest in land to which the water is to be transferred, for at least one (1) calendar year prior to January 1 of the year in which the transfer is proposed to occur, shall not be permitted to transfer water under the District programs until that ownership qualification period has been complied with.

II. Technical requirements relating to amounts of water which may be transferred under land fallowing proposal:

2.0 The technical requirements for a fallowing proposal and the limitations upon the amounts of water which may be transferred are as follows:

Land Fallowing
Technical Standards and Guidelines

2.1. Maximum Quantity of Transferable Water

2.1.1. The maximum quantity of water (Max Transferable) that can be transferred by a Landowner fallowing land is the ***lesser of the monthly Consumptive Use of the crop being fallowed or the CCID Deliverable Monthly Entitlement.*** (Subject to Adjustments within paragraph 2.4.)

2.2. Consumptive Use

2.2.1. The consumptive use will be calculated using the average of the crops grown on the land for the past three normal water years.

2.2.2. Consumptive Use (CU) = Evapotranspiration Crop (ETc) + Required Leaching Fraction (LF) – Effective Precipitation (EP).

2.2.2.1. CU = ETc + LF – EP

2.2.3. Etc is calculated on a monthly time step for the calendar year. Data on the baseline three year average ETo and rainfall is collected from the nearest CIMIS station(s). The crop coefficients (Kc) are taken from the SWRCB report # 84-1.

2.2.4. LF is calculated based on the methodology outlined in the Western Fertilizer Handbook.

2.2.5. EP is 50% of the three year average rainfall measured at the nearest CIMIS station(s).

2.2.6. No crops may be grown on the fallowed lands at any time during the calendar year during which the fallowing transfer will take place. Lands on which sugar beets were planted prior to December 31, 2007 for harvest in 2008 shall be eligible for a transfer in 2008 provided that no irrigation water from any source is applied after January 1, 2008. Crops which are normally harvested in the preceding calendar year which are delayed in harvesting by weather or other factors beyond the control of the Landowner until after January 1, shall not be excluded from eligibility for a potential transfer but the circumstances shall be brought to the Board of Directors for approval or disapproval on an individual basis prior to eligibility being determined for the fallowing program.

2.3. CCID Deliverable Monthly Entitlement

2.3.1. The deliverable monthly entitlement is that quantity of Exchange Contract Water, on average, (not other water such as well water) that can be delivered to farmed fields within the entity.

2.3.2. The deliverable monthly entitlement is calculated on a per acre basis.

2.3.2.1. The deliverable monthly quantities are the Division of Waters Agreement quantities less system losses and other commitments divided by total entity acreage.

2.4. Adjustments

2.4.1. The deliverable monthly entitlement may be accumulated (bath tubbed) for the 7 month period so long as the bath tub is being provided by Reclamation in accordance with the Refuge Water Transportation Agreement.

2.5. Determination of Acreage of Fallowed Land

2.5.1. Acreage of Fallowed land will be based on farmed acres not assessed acreage. Each field that is fallowed must be contiguous unto itself.

2.5.2. The following are acceptable methods for determining farmed acreage:

2.5.2.1. CCID Field Map acreage;
2.5.2.2. Measurements based on aerial photography;
2.5.2.3. Field measurements; and
2.5.2.4. Equivalent methods approved by the transfer committee.

2.5.3. To the extent possible, whole fields will be fallowed.

2.5.4. If only a portion of a field is to be fallowed then the fallowed portion must be physically separated from the farmed field by levee or drain. (It is important that no water of any kind be applied to the fallowed land.)

III. Fallowing Transfers – Quantity Limitations.

3.0 Fallowing transfers, in addition to the amounts and limits provided in the Technical Standards above, will be further limited to no more than the water generated from fallowing 20% of the Landowner's total ownership within the District. If a Landowner owns only a percentage interest in a parcel or parcels of land, not more than 20% of that Landowner's percentage of those parcels may be subscribed in the fallowing program.

3.1 The above amount shall be limited by CEQA/NEPA documents, regulatory approval by the Bureau of Reclamation, and restrictions enacted by the Exchange Contractors. A Landowner should not presume that the full 20% of that Landowner's owned land or share of owned land proposed to be transferred will be transferable in any year.

4.0 The Landowner will be required to pay the cost of the studies, tests and monitoring to determine the amounts of water which can be safely transferred pursuant to a fallowing proposal and which will not impact, directly or indirectly, other users within the District through reduction of groundwater recharge, operational changes, or drainage quality conditions. Landowners seeking to transfer water pursuant to a fallowing proposal in which severe drainage quality conditions exist may be provided priority in regard to fallowing transfers and may be subject to further conditions and limitations, including installation of improvements upon the land to provide increased water conservation upon the fallowed land.

5.0 Land proposed to be fallowed shall further be subject to restrictions in regard to the care of the land during each year it is fallowed to restrict noxious weeds, to comply with air pollution requirements, and to avoid dust or similar detrimental conditions to neighboring land.

6.0 The Landowner proposing a fallowing transfer will be required to demonstrate that at the end of the term of the proposed transfer (one year), the land upon which the water is to be utilized in the Recipient District will be not be dependent upon further transfers.

IV. Documentation.

7.0 The Recipient District must conduct a Water Conservation Program that includes water efficient management practices pursuant to Water Code Section 10800, and must conduct a drainage program which, in the sole determination of CCID, assures that the water transfer will not cause a deleterious effect downslope from any lands irrigated as a result of the transfer.

8.0 The Landowner in the form of an Agreement must hold the District free and harmless against claims for damages arising either because of the fallowing of the land within CCID or the receipt of water upon the lands within the Recipient District pursuant to the transfer and any conditions or problems of any nature or kind that may arise or be related to the transfer. The Recipient District must execute an agreement providing for the transfer and agreeing to limit the use of the water transferred to the lands owned by the Landowner and not to permit, directly or indirectly, the transfer of the Recipient District allocation from those lands or the water transferred from CCID to other lands within the Recipient District or other Districts. The object of the Fallowing Program is to provide for interim relief and not to permit speculation with the water value or direct monetary gain through water marketing.

9.0 Lands which are annexed to CCID are subject to a rule that for ten (10) subsequent years, no water may be transferred. That rule will continue to apply and takes precedence over this policy as to such annexed lands.

10.0 The District fee schedule for investigating, determining the conditions of, and monitoring fallowing transfers shall be established from time to time. The Landowner shall deposit the amounts and supplement those deposits when notified by the District that the original deposit has been exhausted.

11.0 The District (or its designee) will be the lead agency for all CEQA, NEPA and Bureau of Reclamation processes.

12.0 The Landowner shall pay all costs of those processes. If any use permit or similar permits are required from the County in which the CCID land is located or from the County in which the land to receive the transfer of water is located, the Landowner is required to comply with those requirements and obtain the necessary permits before the Landowner will be permitted to participate in a fallowing transfer. The District will be the lead agency for CEQA purposes in those County processes. Landowners should not anticipate or depend upon fallowing transfers being approved prior to the final action and approval by the Bureau of Reclamation, the Recipient District, the Counties if they have jurisdiction or ordinance requirements, and finally, the CCID Board of Directors. Landowners are warned that the process of review and approval of transfers of this nature can take an extensive period of time. The District will have no liability if a Landowner has no other options or means of providing sufficient water to the lands proposed to receive the transfer. The transfer will be credited to the Recipient District in accordance with CCID's estimate of the periods within which water would have been used upon the CCID fallowed land. It is up to the Landowner proposing the transfer to work out, if possible with the Recipient District, the utilization of those credits within the Recipient District. In some cases, the transfer from CCID will not permit the early irrigation of the lands within the Recipient District in accordance with the schedule of actual irrigation. It is up to the Landowner to work with the Recipient District to try to accommodate that difficulty.

CENTRAL CALIFORNIA IRRIGATION DISTRICT

RULES GOVERNING PUMPING OF PRIVATE WELLS

FOR WATER CREDITS IN OTHER DISTRICTS

Adopted: February 24, 1993
Revised: October 26, 2007

These Rules are a part of the Central California Irrigation District Water Transfer Policy. Reference to that Policy will be made in interpreting and applying these Rules related to proposals for pumping of private wells for credit in other Districts.

CCID receives its surface water supplies from the Bureau of Reclamation pursuant to the Exchange Contract. The terms of the Exchange Contract limit the quantity of surface water delivered in accordance with a 5-month and 7-month schedule, and, further, limit the monthly quantity of water so delivered. As a result of these constraints, CCID has historically relied on groundwater to supplement surface water especially during peak summer water demand months. CCID is a signatory to the broadly accepted AB 3616 Best Management Practices Memorandum of Understanding. The District adopted an AB 3030 Groundwater Management Plan and actively manages its surface and ground water through tiered water price incentives or disincentives. This conjunctive management protocol gives CCID maximum flexibility to meet the water demands of its growers.

1. Except as noted, these rules shall apply to all well water pumped for credit in other districts, either from in-District or outside District wells. Each new request must be reviewed and approved by the Board of Directors.

2. All water pumped must meet water quality standards as established by the Board of Directors. Currently, the maximums allowed are:

    a. 1,500 TDS, 2.0 ppm boron
    b. Blended quality downstream of well shall not exceed 700 TDS, 0.5 ppm boron, and no additional selenium detected.

3. Water credits may be used in the Recipient District only by the Landowner who owns the ground where the well is located in CCID. Permission to pump a well for credit will be granted to only one owner during the year; permission cannot be transferred to another owner. Landowner as defined in the District Water Transfer Policy requires that the Landowner own both the land to which the well water is credited as used in CCID and the land in the Recipient District and that both interests in land be held for one year prior to January 1st of the year that the transfer is proposed to occur. If a Landowner owns the In-District land on January 1 of the year in which the transfer is proposed and the Landowner was the tenant upon the property in the previous full year and held a written option to purchase, the Landowner shall be treated as complying with this requirement. The parents or natural or adopted children and grandchildren of a Landowner, will be treated as identical with the Landowner for the purposes of transfers

because these ownership differences often arise from estate planning, governmental entitlement or similar requirements. If ownership is in an entity such as a corporation or partnership, the Landowner's percentage of ownership will limit the amount of water transferable.

3.1. There may be special circumstances in which lands lying adjacent to the District may request that the District allow wells on lands owned by the same Landowner but which wells are also located outside the District boundaries to be pumped into the District system for delivery of the well water from the District system to lands located outside the District owned by the same Landowner; provided, however, that the transfers of well water historically accomplished by the Mall/Craven properties and by the Mosko property, shall be permitted to continue for up to (i) five (5) years subject to the transfer restriction of well water for two (2) out of each three (3) years, or (ii) until the land is sold, whichever date is earlier. In general, the District will apply the same limitations, conditions and policy goals in considering whether to grant or deny those requests.

4. A well pumper will be allowed to pump no more than an amount of the groundwater which can be pumped without damaging other landowners or depleting groundwater storage. This amount is currently estimated at 3.0 acre-feet per acre. Acreage for this calculation will include land owned contiguous to the parcel where the well is located, or within five miles of the well. In no case shall the total water allocation per acre to property in other districts exceed the per-acre allocation for CCID's consumers. Water credits may be used on any land that is within a ten-mile radius of the well or in the same groundwater basin, unless a groundwater consultant's report, which consultant and report are approved by the District, shows that the pumping plan will not result in overdrafting and that adverse effects such as subsidence or unreasonable cones of depression affecting other wells within the area will not occur in the vicinity of the well site. This amount of groundwater pumped for transfer purposes may be reduced or curtailed based upon observed impacts or new information regarding groundwater conditions.

5. Pumping for credit must be terminated if the pumping has a detrimental impact on neighboring wells or on the groundwater table. In case of a dispute over claims of detrimental impacts, a determination will be made by an independent groundwater consultant chosen by the District, whose decision will be final. All costs for the consultant shall be paid by the well pumper. Curtailment of groundwater pumping may occur during the water year and transfer of well water will be curtailed or terminated in those circumstances.

6. Pumping into CCID canals will be allowed only when the pumped water is needed for District water demands.

   a. CCID's surface water supply delivered by the Bureau is generally restricted in monthly quantity. Consequently, unless the water year is such that CCID is accorded water supply delivery flexibility, all well pumping credits on land must be transferred to the Recipient District in the same month in which the water is pumped.
   b. A 10% loss factor will be applied to all well water pumped for credit under this policy.
   c. Every well pumping for credit must have a meter acceptable to CCID.

7. There will be an administrative fee of $2.00 per acre-foot pumped. Other charges to transport well water for credit will be as follows:

   a. A District fee based on actual cost of providing this service will be billed at the end of the water season.
   b. A transfer fee of $4.00/AF for water users not farming in CCID.
   c. Additional fees will be charged based on water quality as follows:

      0 – 500 ppm TDS: No charge
      500 – 1,000 ppm TDS: $ 5.00/AF
      1,000 – 1,500 ppm TDS: $10.00/AF

      Water above 1,500 ppm TDS or 2.0 ppm boron will not be transported.
   d. Any other fees or charges assessed by the Bureau of Reclamation or the receiving districts will be the responsibility of the applicant.
   e. These fees shall be reviewed annually by the Board of Directors and may be revised at that time.

8. In order to avoid unreasonable impacts on the water supply, operations, and financial condition of the District and its water users, the District will not approve a proposal to pump well water for credit unless:

   a. The Recipient District conducts a water conservation program that includes efficient water management practices, or is in compliance with an urban water management plan under Water Code Section 10610 et seq., an urban water shortage contingency plan under Water Code Sections 10621, 10631 and 10656, or an agricultural water management plan adopted pursuant to Water Code Section 10800 et seq.; and
   b. The Recipient District conducts a drainage program which in the sole determination of CCID assures that the water transfer will not cause a deleterious effect on lands downslope from any lands irrigated as a result of the transfer; and
   c. The transferee demonstrates that it will not be dependent upon the transferred water supply at the end of the term of the proposed transfer.
   d. A proposal to pump wells for credit will be approved no more than 2 out of 3 consecutive years. Alteration in the Landowner identity, the well ownership, or the ownership of the land to receive the credit will not avoid this rule. The well may not be subscribed in the program for any purpose for three (3) consecutive years.

9. The applicant must in the form of an agreement hold the District harmless against:

   a. Claims for damage to the groundwater table from adjacent Landowners;
   b. Claims for damages incurred by the applicant in the event the permission to pump for credit is cancelled; and
   c. Any problems that may arise under this program.

10. Permission to pump for credit may be revoked if any of the above terms and conditions are violated.

SAN LUIS CANAL COMPANY

RULES AND REGULATIONS GOVERNING TRANSFERS OF WATER UNDER THE CENTRAL VALLEY PROJECT IMPROVEMENT ACT OF 1992 (PL 102-575)

In order to implement Section 3405 of the Central Valley Improvement Act of 1992 (PL 102-575), San Luis Canal Company ("Company") adopts the following rules and regulations governing transfers of Central Valley Project water.

1. Exclusive Right to Transfer: Inasmuch as the San Luis Canal Company, as a corporate body, possesses the right to receive water pursuant to the exchange contract with the USBR, and inasmuch as the Corporation shareholders possess the right to receive water from the Corporation, it is this Company's position that only the San Luis Canal Company can transfer Corporation water pursuant to Public Law 102-575, Section 3405.

2. Compliance with Laws and Regulations: The Company will comply with the provisions of the Central Valley Project Improvement Act, all applicable regulations and guidelines of the Secretary of the Interior and be consistent with state law. In addition, transfers must be approved by the Contracting Entities and not jeopardize the "Second Amended Contract for Exchange of Waters." (Revised 12/6/67)

3. Limitation: The amount of Company water that can be transferred without unreasonable impacts on the water supply, water quality, operations and financial conditions of the Company and its water users is limited. The Company will not make any transfers that would adversely impact the water supply for its stockholders' land.

4. Groundwater Limitations: There shall be no transfer of groundwater beyond safe yield outside the Company service area.

5. Transferee Limitations: In order to promote the purposes of the Central Valley Project Improvement Act of 1992, and to avoid unreasonable adverse impacts on the water supply, water quality, operations, and financial condition of the Company and its water users, the Company will not enter into a water transfer unless:

a. The transferee initiates a reasonable water conservation program that includes efficient water management practices, or is in compliance with an urban water management plan under Water Code Section 10610 et seq., an urban water shortage contingency plan under Water Code Section 10621, Section 10631, and Section 10656, or an agricultural water management plan adopted pursuant to Water Code Section 10800 et seq. or any revised codes thereafter;

b. The transferee conducts a drainage study to assure that the water transfer will not cause a deleterious effect on lands in proximity to lands irrigated as a result of the transfer; and

c. The transferee demonstrates that it will not be dependent upon the transferred water supply at the end of the term of the proposed transfer, and will be able to relinquish the transferred water supply at that time.

6. Submission of Proposals: The Company will make a formal water transfer application to the USBR. The Company shall submit one (1) complete copy to the transferee. An application shall be deemed complete for the purposes of Company review only when it has been deemed complete by USBR and contains sufficient information for the

Board to determine the impact of the proposed transfer on the water supply, water quality, operations and financial conditions of the Company and its water users, and compliance with CEQA.

7. Future Modifications: Company transfers shall be subject to modification from time to time in response to:

a. Changes in applicable laws, regulations, contracts and court decisions;

b. Changed circumstances that cause a transfer to result in unreasonable impacts on the water supply, water quality, operations, or financial conditions of the Company or its water users;

8. Indemnification: The transferee shall defend, indemnify, and hold harmless the Company against any claims of third parties that the transfer:

a. Is not a beneficial or reasonable use of water;

b. Violates any law or regulation including, but not limited to the National Environmental Policy Act (NEPA), CEQA, Endangered Species acts, Water Quality statutes, and Area of Origin laws; or

c. Has caused or will cause injury or damage to any person or property, including violations of any contracts, leases, trust deeds or water rights.

The foregoing regulations were adopted by the San Luis Canal Company at a regular meeting of its Board of Directors on January 27, 1994.

FIREBAUGH CANAL WATER DISTRICT
WATER TRANSFER POLICY

Firebaugh Canal Water District has the right to appropriate water from the San Joaquin River. Under the terms of the Exchange Contract with the Bureau of Reclamation, the District receives substitute water generally delivered through the Delta-Mendota Canal to Mendota Pool. The District will permit the transfer of substitute water pursuant to this policy.

1. Eligible Transferors. Only District landowners may transfer their water allocation. If a water transfer is proposed by a person who is not the landowner, the written authorization of the landowner must accompany the proposal.

2. District Approval. The District strives to manage water transfers so that the water supply, operations, and financial condition of the District and the Exchange Contractors, and water users within the Exchange Contract service area are not unreasonably impacted. In order to obtain District approval of a water transfer proposal, the transferor must demonstrate that the transfer does not unreasonably impact:

   a. The quantity and quality of the water supply available to the District and its water users;

   b. The ability of the District to blend irrigation return flow and drainage water in its canals to meet water quality standards imposed by the Regional Water Quality Control Board;

   c. The District=s operations including, but not limited to the ability of the District to meet its delivery obligations, obtain additional water supplies, and undertake conservation measures, exchanges, and transfers;

   d. The District=s financial condition and its cost of providing water service to its water users;

   e. The ability of the District or its water users to provide drainage to lands, including the ability to meet regulatory requirements relating to the discharge of agricultural drainage; and

   f. Other relevant factors that may create an adverse financial, operations, or water supply impact on the District or its water users.

   g. The ability of neighboring lands to continue to farm and cultivate crops without the fallowed land creating noxious weeds, dust, insect or disease conditions which may impact those neighboring lands.

3. Water Transfer Proposal. All transfers which an individual landowner wishes to make must be presented to the District for processing.
In any water year, the total water to be transferred shall not exceed that quantity of water that the District determines can be safely transferred without adversely impacting the quantity and quality of the water supply available to the District and its water users. The District will also determine the quantity of water for the water year that the District needs in order to provide for blending of irrigation return flow and drainage water in its canal

systems to meet regulatory requirements. The total water allowed to be transferred shall be computed first after considering these factors and, then, after subtracting the quantity of water needed to offset transportation, evaporation, seepage, metering or measurement error, and any amounts necessary to satisfy agreements with the other Exchange Contractors.

4. Consumptive Use Limitation. Only water that would have been consumptively used or irretrievably lost to beneficial use during the term of the transfer may be transferred, and the transfer quantity may not exceed the transferor=s allocation of water. The District reserves the right to limit transfers during specific months to the quantity of water that would have been consumptively used or irretrievably lost to beneficial use by the transferor during those months.

5. Correlative Share Limitation. The amount of District water that can be transferred without unreasonable impacts on the District and its water users is limited. The District considers the rights of individual landowners to transfer their water supplies to be limited to a correlative share of the total transferable supply. The District will not approve any transfer proposal that would prevent other landowners from transferring their correlative share of the transferable supply of District water.

6. Groundwater Limitations:

   a. General Limitation. The District will not approve any water transfer involving a substitution of groundwater that the District believes (i) is likely to result in significant long-term adverse impacts on groundwater conditions within the District=s service area, (ii) unreasonably interferes with pumping rates or capacities of wells within the District=s service area, or, (iii) interferes with the District=s ability to meet water quality objectives imposed by the Central Valley Regional Water Quality Control Board or other agency having jurisdiction and regulatory authority of the quality of waters used within or discharged from the District=s service area. This limitation shall also apply to water transfer proposals whereby groundwater extracted from lands within the District service area is wheeled in District facilities for use within the District=s service area.

   b. Critical Year Limitation. The District has determined that groundwater pumping within its boundaries during critical water years as defined by the Exchange Contract results in significant long-term adverse impacts on groundwater conditions within the District=s service area that in turn causes unreasonable impacts on the water supply of the District and its water users; therefore, the District will not approve any water transfer proposal that involves pumping of groundwater in critical water years.

7. Transfer Limitations. A transfer will not be approved if the District determines that the water transfer is likely to increase drainage requirements or otherwise cause a deleterious effect on District lands downslope of the lands irrigated as a result of the transfer. The transfer will not be approved unless the Transferor's plan for the lands from which the water will be removed includes a full, detailed and feasible plan to maintain any fallowed lands in a condition in which the lands will not create a risk of insect infestation, disease, dust, noxious weeds or other detrimental condition that may affect neighboring lands and assurances that the plan will be implemented.

8. Compliance with Law and Regulations. Transfer proposals must comply with all

provisions of law including but not limited to the provisions of the California Environmental Quality Act (CEQA).

9. Submission of Proposals:

a. Preliminary Proposals. A transferor may submit a preliminary water transfer proposal to the District prior to the submission of a formal water transfer proposal. The purpose of a preliminary water transfer proposal is to provide the opportunity for informal review by District staff in order to advise the transferor of possible requirements, conditions or objections if a formal proposal is made. The response of the District to a preliminary proposal shall be deemed tentative and subject to change if a formal transfer proposal is made.

b. Formal Proposals. No later than the date the formal water transfer proposal is submitted to the USBR, the transferor shall submit two (2) complete copies to the District. A proposal shall be deemed complete for purposes of District review only when it has been deemed complete by the USBR and contains sufficient information for the District to determine the impact of the proposed transfer on operations of the District, and that it has been analyzed for compliance with CEQA. The transferor must supply any additional information requested by the District in order to enable the District to effectively review the proposal.

10. Hearings. The District may conduct one or more public hearings in order to determine whether the proposed transfer is likely to have an impact on the water supply, operations and financial condition of the District and its water users, and to ensure compliance with CEQA. The transferor and the transferee, or their representative, shall attend any such hearing if requested to do so by the District in order to respond to questions and comments regarding the impact of the proposed water transfer.

11. Future Modifications. District-approved transfers shall be subject to modification from time to time in order to respond to:

a. Changes in applicable laws, regulations, contracts and court decisions;

b. Changed circumstances that cause a transfer to result in unreasonable impacts on the water supply, operations or financial condition of the District or its water users;

c. Proposals by the water users within the District to transfer their correlative share of the District=s transferable water supply.

12. Costs.

a. The transferor must demonstrate that the transferor has paid or has made acceptable arrangements to pay all costs associated with developing a complete water transfer proposal, including the costs associated with necessary environmental review and District staff and attorney review necessary to process the transfer proposal.

b. The transferor shall be responsible to pay all costs incurred by the District in

processing the water transfer proposal and administering the water transfer itself. Such costs shall be charged to the transferor on a time-and-materials/acre-foot basis in accordance with generally accepted accounting practices. A deposit, in an amount to be fixed by the Board of Directors, shall accompany the proposal. If it appears to the District that the deposit will be inadequate to cover the District=s costs, the District may issue a written cost estimate, or estimates, to the transferor. The transferor shall deposit with the District the funds necessary to meet such supplemental cost estimates. The District shall charge its costs against the transferor=s deposits and shall render an accounting to the transferor upon request, but not more often than monthly. Any unexpended portion of the transferor=s deposits shall be refunded upon completion of the transfer. If the transferor fails to deposit sufficient funds to cover the District=s costs, the deficiency shall be due upon submission of an invoice from the District to the transferor. If the transferor fails to pay the invoice, the amount due may, at the District=s election, be added to the transferor=s property taxes or secured by recordation of a lien certificate pursuant to Water Code ' 37212.

13. Charges. Before any water is transferred in a given water year, the transferor shall pay to the District in full:

a. All additional water rates and charges due to the Bureau of Reclamation or other agency that the District is obligated to collect on account of the approved water transfer.

b. The District=s water charges for that year=s water supply to the land from which the water is being transferred

c. Any standby charges or assessments attributable to the subject land for the year of the transfer, and any delinquencies on account of past water charges, standby charges or assessments.

14. Indemnification. The transferor and transferee are required to defend, indemnify, and hold harmless the District against any claims of third parties that the transfer:

a. Violates the terms of the Second Amended Contract for Exchange of Waters, Contract No. Ilr-1144, dated February 14, 1968;

b. Is not a beneficial or reasonable use of water;

c. Violates any law or regulation including, but not limited to the National Environmental Policy Act (NEPA), CEQA, State and Federal Endangered Species acts, water quality statutes, and Area of Origin laws; or

d. Has caused or will cause injury or damage to any person or property, including violations of any contracts, leases, trust deeds or water rights.

The transferor and transferee are also required to defend, indemnify and hold harmless the District from any claims that the transferor or transferees have breached any contractual or statutory duties pertaining to the transfer.

In addition, the transferor shall relinquish for the duration of the approved transfer all entitlement to receive the water supply that is the subject of the approved transfer. The transferor and transferee shall abide by the termination date of the transfer unless extended in the manner provided by law and shall not contest the return of the transferred water supply to the District=s service area upon such termination.

The transferor shall provide the necessary assurances to the District that the transferee has agreed to abide by the termination date as set forth above and that the transferee has agreed to waive any claim of dependency, detrimental reliance, or intervening public use as a basis for extending the water transfer beyond its approved term.

Prior to approval of the proposed transfer, the transferor shall deliver to the District an agreement, in a form acceptable to the District, signed by the transferor and the transferee, by which they agree to conform to this policy, and in particular to the requirements of this Section.

The agreement shall provide among other terms for the compliance with the plan for maintenance of the land and facilities upon the land from which the water is transferred in such a condition that the land will not create a risk of detrimental impacts to surrounding lands. The District shall be granted the right to perform those measures at the cost of the transferor if the measures are not fully and timely complied with.

15. Water Transfers. Water Transfers for use of water outside of the District boundaries may only be accomplished with the written agreement and compliance with the agreement terms established by the Board of Directors and only in compliance with Federal and State law. Transfers to lands outside of the District boundaries are not a matter of right. If any terms of a written agreement specifying the means and conditions of a transfer shall be violated or fail to be performed, the landowner shall be subject to the penalties provided under the terms of the agreement but shall further be barred from receiving water upon any lands within the boundaries of the District until such time as the District Board of Directors shall determine that the transfer agreement terms have been fully complied with. A breach of the terms of a water transfer agreement which cannot be remedied by physical performance may result in a suspension of the right to receive water for up to one calendar year after a hearing is conducted by the Board of Directors, in addition to the remedies, fines or penalties established under the written agreement and under these rules and regulations.

The foregoing policy was adopted by the Firebaugh Canal Water District at a regular meeting of its Board of Directors on March 11, 1993 and revised in the same manner on October 16, 2001 and July 20, 2004.

Columbia Canal Company

Water Transfers

Rules and Regulations

July 8, 1993

Firebaugh, California

BOARD RESOLUTION

RESOLUTION OF THE BOARD OF DIRECTORS OF COLUMBIA CANAL COMPANY ADOPTING RULES AND REGULATIONS GOVERNING TRANSFERS OF WATER UNDER THE CENTRAL VALLEY PROJECT IMPROVEMENT ACT OF 1992 (P.L. 102-575)

WHEREAS, the United States Congress has enacted the Central Valley Project Improvement Act of 1992 (P.L. 102-575) ("the Act") which provides, among other things, for transfers of project water by water users within the Columbia Canal Company's service area; and

WHEREAS, the United States Bureau of Reclamation has promulgated "Interim Guidelines for Implementation of the Water Transfer Provisions of the Central Valley Project Improvement Act (Title XXXIV of Public Law 102-575)" ("the Guidelines") establishing procedures and criteria for processing such water transfers until formal regulations can be adopted; and

WHEREAS, the Act and the Guidelines impose certain duties upon the Columbia Canal Company including but not limited to the duty to determine whether a proposed transfer of project water will have an unreasonable impact on the water supply, operations or financial conditions of the Columbia Canal Company or its water users; and

WHEREAS, the Columbia Canal Company is authorized to make reasonable rules and regulations providing for the equitable, efficient and economic distribution of its water supply; and

WHEREAS, the Columbia Canal Company desires to establish uniform procedures under which such proposed transfers of water will be evaluated, processed and administered,

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Columbia Canal Company as follows:

10. The said Board hereby adopts the "Rules and Regulations Governing Transfers of Water Under the Central Valley Project Improvement Act of 1992 (P.L. 102-575)" a true coy of which is attached to this Resolution.

11. Pursuant to Article 13 of said Rules and Regulations, the Board hereby adopts the form of "Indemnification and Fallowing Agreement" attached as Exhibit "B" to this Resolution; and

12. The Board authorizes and directs the manager to take such actions and measures as may be reasonably necessary and incidental to implement the Act, the Guidelines and the said Rules and Regulations.

Passed and adopted at a regular/special meeting of the Board of Directors of Columbia Canal Company on July 8, 1993 by the following votes:

AYES:	4
NOES:	0
ABSENT:	1
ABSTAINING:	0

President
Darrell Vincent, Columbia Canal Company

ATTEST:

Secretary
Keith Watkins, Columbia Canal Company

RULES AND REGULATIONS

COLUMBIA CANAL COMPANY

RULES AND REGULATIONS GOVERNING TRANSFERS OF WATER UNDER THE CENTRAL VALLEY PROJECT IMPROVEMENT ACT OF 1992
(PL 102-575)

In order to implement §3405 of the Central Valley Improvement Act of 1992 (PL 102-575), Columbia Canal Company ("Company") adopts the following rules and regulations governing transfers of Central Valley Project water by water users.

1. Company Approval: Insofar as these rules and regulations provide for Company approval of water transfer proposals, they shall mean:

a. First 20%. As to transfer proposals that do not involve more than twenty percent (20%) of the Company's water supply subject to contract with the USBR, the term "Company Approval" shall mean the Company's written findings and conclusions reported to the USBR as to whether the transfer proposal should be approved, or conditionally approved.

b. More than 20%. As to transfer proposals that involve more than 20% of the Company's water supply subject to contract with the USBR, the term "Company Approval" shall mean the Company's approval, or conditional approval, of such proposals.

2. Eligible Transferors: Only landowners may transfer Company water allocations. If a transfer is proposed by a person who is not the landowner, the written concurrence of the landowner must accompany the proposal.

3. Compliance with Laws and Regulations: Transfer proposals must comply with the provisions of the Central Valley Project Improvement Act and all applicable regulations and guidelines of the Secretary of the Interior. All transfer

proposals must also be consistent with State law, including but not limited to the provisions of the California Environmental Quality Act (CEQA).

4. Consumptive Use Limitation: Only water that would have been consumptively used (or irretrievably lost to beneficial use) during the term of the transfer may be transferred - not to exceed the transferor's allocation of project water. The Company reserves the right to limit transfers during specific months to the quantity of water that would have been consumptively used (or irretrievably lost to beneficial use) by the transferor during those months. If the transfer of consumptive use water during such months would have an unreasonable impact on the water supply, operations or financial condition of the Company or its water users, the Company may further limit the transfer.

5. Correlative Share Limitation: The amount of Company water that can be transferred without unreasonable impacts on the water supply, operations and financial conditions of the Company and its water users is limited. The Company considers the rights of individual landowners to transfer their water supplies to be limited to a correlative share of the total transferable supply. The Company will not approve any transfer proposal that would prevent other landowners from transferring their correlative shares of the transferable supply of Company water.

6. Groundwater Limitations:

a. General Limitation. It has been judicially determined that the groundwater supply underlying the lands within the Company is overdrafted. As the supply is overdrafted, any substitution of the use of groundwater for transferred surface water will result in significant long-term adverse impact on groundwater conditions within the Company's service area, and would result in an unreasonable interference with pumping rates or capacities of wells within the Company service area. That, in turn, causes unreasonable impacts on the water supply, operations, and financial condition of the Company and its water users.

For this reason no transfer of groundwater to areas outside the Company service area will be approved and no transfer of surface water without fallowing the land to which such surface supply would have been delivered will be approved.

7. Transferee Limitations: In order to promote the purposes of the Central Valley Project Improvement Act of 1992, and to avoid unreasonable impacts on the water supply, operations, and financial condition of the Company and its water users, the Company will not approve a water transfer proposal unless:

a. The transferee conducts a water conservation program that includes efficient water management practices, or is in compliance with an urban water management plan under Water Code §10610 *et seq.*, an urban water shortage contingency plan under Water Code §10621, §10631, and §10656, or an agricultural water management plan adopted pursuant to Water Code §10800 *et seq.*;

b. The transferee conducts a drainage program to assure that the water transfer will not cause a deleterious effect on lands downslope from any lands irrigated as a result of the transfer; and

c. The transferee demonstrates that it will not be dependent upon the transferred water supply at the end of the term of the proposed transfer, and will be able to relinquish the transferred water supply at that time.

8. Submission of Proposals:

a. Preliminary Proposals. A transferor may submit a preliminary water transfer proposal to the Company prior to the submission of a formal water transfer proposal. The purpose of a preliminary water transfer proposal is to provide an informal review by Company staff in order to advise the transferor of possible requirements, conditions or objections if a formal proposal is made. The response of the Company to a preliminary proposal shall be deemed tentative and subject to change if a formal transfer proposal is made.

b. Formal Proposals. No later than the date the formal water transfer proposal is submitted to the USBR, the transferor shall submit two (2) complete copies to the Company. A proposal shall be deemed complete for the purposes of Company review only when it has been deemed complete by USBR and contains sufficient information for the Company to determine the impact of the proposed transfer on the water supply, operations and financial conditions of the Company and its water users, and compliance with CEQA. The transferor must supply any additional information requested by the Company in order to enable the Company to meet its responsibilities to review the proposal.

(c) Agreement to Fallow Land. No formal proposal shall be complete without an agreement by the transferor to fallow the land to which the transferred water would have been delivered for each crop year in which a transfer is made.

9. Hearings: The Company may conduct one or more public hearings in order to determine the impact of the proposed transfer on the water supply, operations and financial conditions of the Company and its water users, and to ensure compliance with CEQA. The transferor, and the transferee, or their respective representatives, shall attend any such hearing if requested to do so by the Company in order to respond to questions and comments regarding the impact of the proposed water transfer.

10. Future Modifications: Company-approved transfers shall be subject to modification from time to time in response to:

a. Changes in applicable laws, regulations, contracts and court decisions;

b. Changed circumstances that cause a transfer to result in unreasonable impacts on the water supply, operations, or financial conditions of the Company or its water users;

c. Proposals by other water users within the Company to transfer their correlative share of the Company's transferable water supply that, if approved,

would result in more than twenty percent (20%) of the Company's long-term water supply under contract with USBR being committed for transfer.

11. Costs: The transferor shall be responsible for all costs incurred by the Company in processing the water transfer proposal and administering the water transfer itself. Such costs shall be charged to the transferor on a time-and-materials basis in accordance with generally accepted accounting practices. A deposit of $_____ shall accompany the proposal. If it appears to the Company that the deposit will be inadequate to cover the Company's costs, the Company may issue a written cost estimate, or estimates, to the transferor. The transferor shall deposit with the Company the funds necessary to meet such supplemental cost estimates. The Company shall charge its costs against the transferor's deposits and shall render an accounting to the transferor upon request, but not more often than monthly. Any unexpended portion of the transferor's deposits shall be refunded upon completion of the transfer. If the transferor fails to deposit sufficient funds to cover the Company's costs, the deficiency shall be due upon submission of an invoice from the Company to the transferor. If the transferor fails to pay the invoice, the amount due may, at the Company's election, result in forfeiture of the right to receive water, and of the transferor's stock, pursuant to Article X of the Company's Bylaws.

12. Charges: Before any water is transferred in a given water year, the transferor shall pay to the Company in full:

(a) All additional water rates and charges due to the Bureau of Reclamation which the Company is obligated to collect on account of the approved water transfer.

(b) The Company's water charges and assessments for that year's water supply to the land from which the water is being transferred.

(c) The transferor shall also pay, in advance of the transfer, any standby charges attributable to the subject land for the year of the transfer, and any delinquencies on account of past water charges, standby charges or assessments.

13. Indemnification: The transferor and transferee shall defend, indemnify, and hold harmless the Company against any claims of third parties that the transfer:

a. Violates the terms of that certain contract dated February 14, 1968 between CENTRAL CALIFORNIA IRRIGATION DISTRICT, COLUMBIA CANAL COMPANY, SAN LUIS CANAL COMPANY, and FIREBAUGH CANAL COMPANY entitled "Second Amended Contract For Exchange of Waters";

b. Is not a beneficial or reasonable use of water;

c. Violates any law or regulation including, but not limited to the National Environmental Policy Act (NEPA), CEQA, Endangered Species acts, Water Quality statutes, and Area of Origin laws; or

d. Has caused or will cause injury or damage to any person or property, including violations of any contracts, leases, trust deeds or water rights.

e. The transferor and transferee shall also defend, indemnify and hold harmless the Company from any claims that the transferor or transferee have breached any contractual or statutory duties pertaining to the transfer.

f. In addition, the transferor shall relinquish for the duration of the approved transfer the right to receive from the Company the water supply that is the subject of the approved transfer. The transferor and transferee shall abide by the termination date of the transfer unless extended in the manner provided by law and not contest the return of the transferred water supply to the Company's service area upon such termination. In particular, the transferee shall waive any

claim of dependency, detrimental reliance, or intervening public use as a basis for extending the water transfer beyond its approved term.

g. Prior to approval of the proposed transfer, the Transferor shall deliver to the Company an agreement, in a form acceptable to the Company, signed by the Transferor and Transferee by which they agree to conform to these Rules and Regulations, and in particular this Article 13 and transferor agrees to fallow the land to which the transferred water would have been delivered. .

The foregoing regulations were adopted by the Columbia Canal Company at a regular meeting of its Board of Directors on July 8, ____, 1993.

INDEMNIFICATION AND FALLOWING AGREEMENT

INDEMNIFICATION AND FALLOWING AGREEMENT

This Agreement is made by and between COLUMBIA CANAL COMPANY (hereinafter "Company") and the hereinafter named Transferor and Transferee on the date hereinafter set forth in the County of Madera, State of California.

TRANSFEROR:

TRANSFEREE:

PROPOSED TRANSFER:

In consideration of Company's approval of their proposed water transfer, and in order to prevent unreasonable impacts on Company's water supply, operations, and financial condition, the above-named Transferor and Transferee agree and covenant as follows:

1. TRANSFER SUBJECT TO RULES AND REGULATIONS.

1.01 The said transfer shall be subject to the Company's "Rules and Regulations Governing Transfers of Water Under the Central Valley Project Improvement Act of 1992 (PL 102-575)".

2. JOINT INDEMNIFICATION.

2.02 The Transferor and Transferee jointly and severally agree to defend, indemnify and hold harmless the Company against any claims of third parties that the transfer:

a. Violates the terms of that certain contract dated February 14, 1968 between CENTRAL CALIFORNIA IRRIGATION DISTRICT, COLUMBIA CANAL COMPANY, SAN LUIS CANAL COMPANY, and FIREBAUGH CANAL COMPANY entitled "Second Amended

Contract For Exchange of Waters ";

b. Is not a beneficial or reasonable use of water;

c. Violates any law or regulation including, but not limited to the National Environmental Policy Act (NEPA), CEQA, Endangered Species acts, Water Quality statutes, and Area of Origin laws; or

d. Has caused or will cause injury or damage to any person or property, including violations of any contracts, leases, trust deeds or water rights.

3. RELINQUISHMENT OF RIGHT TO RECEIVE WATER.

3.01 The Transferor relinquishes for the duration of the approved transfer the right to receive from the Company the water supply that is the subject of the approved transfer for use on the land within Company's service area.

4. TRANSFEROR TO FALLOW LAND.

4.01 Transferor agrees for the _____ crop year(s) and any subsequent crop years for which this transfer may be extended to fallow the property described in Exhibit A attached hereto which lies within the service area of Company which would have been entitled to receive all or portions of the water transferred.

4.02 The word "fallow" as used herein shall mean that the land will not be used to grow irrigated crops. Any non-irrigated crop may be grown thereon.

4.03 Transferor further agrees that while the land is fallowed that it will be kept clear of weeds or noxious plant life so that the same will not be allowed to go to seed.

4.04 Transferor agrees that if he fails to comply with the provisions of this Article 4 that Company, together with any other remedies available under the laws of the State of California, may terminate delivery of the transferred water to Transferee and terminate delivery of Company water to Transferor for the

land herein described until compliance with the terms hereof is made by Transferor.

5. TRANSFEROR TO INDEMNIFY COMPANY.

5.01 The Transferor agrees to defend, indemnify and hold harmless the Company from any claims that the transfer violates the rights of any tenants or other persons having any interest in the Transferor's land or water supply.

5.02 The Transferor further agrees to defend, indemnify and hold harmless the Company from claims that the Transferor has breached the terms of any agreements relating to the transfer of the water supply, or has failed to comply with any applicable laws or regulations, or has negligently or intentionally caused any injury or damage in the implementation of the water transfer.

6. TRANSFEREE TO INDEMNIFY COMPANY.

6.01 The Transferee agrees to defend. indemnify and hold harmless the Company from any claims that the Transferee has breached the terms of any agreement relating to the transfer of the water supply, or has failed to comply with any applicable laws or regulations, or has negligently or intentionally caused any injury or damage in the implementation of the water transfer.

6.02 The Transferee covenants to abide by the termination date of the transfer unless extended in the manner provided by law and not to contest the return of the transferred water supply to the Company's service area upon such termination.

6.03 In particular, the Transferee waives any claim of dependency, detrimental reliance, or intervening public use as a basis for extending the water transfer beyond its approved term or any approved extension thereof.

6.04 Transferee recognizes that this transfer may be terminated as to future deliveries if Transferor violates the provisons of Article 4 hereof.

*****

7. GENERAL PROVISONS.

7.01 The foregoing indemnification provisions expressly include indemnification of the Company for any fees of attorneys, consultants or expert witnesses reasonably incurred by the Company in protecting itself against the subject claim or claims.

7.02 This Indemnification Agreement shall be binding upon the heirs, successors and assigns of the Transferor and Transferee. A re-transfer of the water supply by the Transferee to a third party shall not relieve the: Transferee of any obligations under this agreement and any Re-transferee shall be subject to all of the terms and provisions hereof.

7.03 In the event suit is brought to enforce or interpret any part of this agreement, the prevailing party shall be entitled to recover as an element of their costs of suit, and not as damages, a reasonable attorneys fee to be fixed by the court. The "prevailing party" shall be the party who is entitled to recover their costs of suit, whether or not the suit proceeds to final judgment. A party not entitled to recover his costs shall not recover attorneys fees. No sum for attorneys fees shall be counted in calculating the amount of a judgment for purposes of determining whether a party is entitled to recover his costs or attorneys fees.

Dated :

_____
"Transferor"

Dated:

_____
"Transferee"

Dated:

Columbia Canal Company

By:_____
President
"Company"

FINAL ENVIRONMENTAL ASSESSMENT (14-001)

FIREBAUGH CANAL WATER DISTRICT TRANSFER OF UP TO 7,500 ACRE-FEET PER YEAR OF CENTRAL VALLEY PROJECT WATER TO PACHECO, PANOCHE, SAN LUIS AND WESTLANDS WATER DISTRICTS

Appendix B
San Luis Water District Letter

April 2014

Attachment C.

LAW OFFICES OF
GARY W. SAWYERS

6715 NORTH PALM AVENUE
SUITE 116
FRESNO, CALIFORNIA 93704

GARY W. SAWYERS
SCOTT D. GREENWOOD-MEINERT

TELEPHONE (559) 438-5656
FACSIMILE (559) 438-1781
GSAWYERS@SAWYERSLAW.COM
SGREENWOOD-MEINERT@SAWYERSLAW.COM

May 3, 2006

VIA FACSIMILE ONLY
(559) 487-5397

Ms. Kathy Wood
Chief, Resource Management Division
Bureau of Reclamation
South-Central California Area Office
1243 "N" Street
Fresno, CA 93721

Re: San Luis Water District
Our File No. 52120.001

Dear Kathy:

In connection with the pending Agreement for the Acquisition of Water by the United States, San Luis & Delta-Mendota Water Authority, and Madera Irrigation District from the San Joaquin River Exchange Contractor Water Authority, I understand that Reclamation requires certain confirmations from the San Luis Water District. As you know, I am general counsel to the District. On behalf of the District, I hereby confirm that the District will not deliver Central Valley Project water to development or converted habitat without confirmation from the Bureau of Reclamation or other evidence that compliance with the Endangered Species Act has occurred with respect to the subject land either through Section 7 or Section 10 of the Act.

If you have any questions or need further confirmation, please contact me.

Very truly yours,

Gary W. Sawyers

GWS:lj
cc: Mr. Martin McIntyre (via facsimile only)
Mr. Daniel Nelson (via facsimile only)

FINAL ENVIRONMENTAL ASSESSMENT (14-001)

FIREBAUGH CANAL WATER DISTRICT TRANSFER OF UP TO 7,500 ACRE-FEET PER YEAR OF CENTRAL VALLEY PROJECT WATER TO PACHECO, PANOCHE, SAN LUIS AND WESTLANDS WATER DISTRICTS

Appendix C
Reclamation's Cultural Resources Determination

April 2014

CULTURAL RESOURCE COMPLIANCE
Reclamation Division of Environmental Affairs
MP-153

MP-153 Tracking Number: 14-SCAO-075

Project Name: Firebaugh Canal Water District (FCWD) Transfer of up to 7,500 acre-feet (AF) of Central Valley Project (CVP) Water to Panoche, San Luis, and Westlands Water Districts

NEPA Document: EA-14-001

NEPA Contact: Rain Emerson, Natural Resources Specialist

MP 153 Cultural Resources Reviewer: William Soule, Archaeologist

Date: 01/17/2014

The undertaking by Reclamation is to approve a series of annual transfers over a five year period (2014-2018) of up to 7,500 AF per year of FCWD's Exchange Contract CVP supplies to PWD, SLWD and 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).

The proposed annual transfer would occur April through December of a given year and would not exceed the maximum of 37,500 AF over the five year period. In order to make FCWD's CVP supplies available for the transfers, FCWD would pump up to 18 cubic feet per second (cfs) of groundwater (for a maximum of 36 AF/day) from five wells to meet in-district demands in lieu of taking surface water deliveries dedicated to FCWD under the Exchange Contract. The pumped groundwater would be discharged into FCWD's conveyance system freeing up 7,500 AF of CVP water under the Exchange Contract to be delivered to PWD, SLWD, and WWD via the Delta Mendota Canal and San Luis Canal.

After reviewing the materials submitted by SCAO, I concur with a statement in EA-14-001 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)

FINAL ENVIRONMENTAL ASSESSMENT (14-001)

FIREBAUGH CANAL WATER DISTRICT TRANSFER OF UP TO 7,500 ACRE-FEET PER YEAR OF CENTRAL VALLEY PROJECT WATER TO PACHECO, PANOCHE, SAN LUIS AND WESTLANDS WATER DISTRICTS

Appendix D
Reclamation's Indian Trust Assets Determination

April 2014

Emerson, Rain <remerson@usbr.gov>

Project Description for 14-001 for Review

RIVERA, PATRICIA <privera@usbr.gov> Thu, Mar 13, 2014 at 7:14 AM
To: "Emerson, Rain" <remerson@usbr.gov>, Kristi Seabrook <kseabrook@usbr.gov>

Rain,

I reviewed the proposed action to approve a series of annual transfers over a five year period (calendar year 2014 through 2018) of up to 7,500 acre-feet (AF) per year of Firebaugh Canal Water District's (FCWD's) Central Valley Project (CVP) Exchange Contract supplies to Panoche Water District, San Luis Water District and Westlands Water Districts (referred to as Transfer Recipient Districts). The proposed transfers would occur from April through December of each year water is transferred and would not exceed the maximum of 37,500 AF over the five year period.

In order to make FCWD's CVP supplies available for the transfers, FCWD would pump up to 18 cubic feet per second (cfs) of groundwater (for a maximum of 36 AF/day) from four wells to meet in-district demands in lieu of taking surface water deliveries dedicated to FCWD under the Exchange Contract. Well specifications include:

- 4 cfs well estimated to pump up to 1,100 AF (well #2)
- 5 cfs well estimated to pump up to 1,000 AF (well #3)
- 3 cfs well estimated to pump up to 900 AF(well #4)
- 5 cfs well estimated to pump up to 300 AF (well #5)

The pumped groundwater would be discharged into FCWD's conveyance system freeing up 7,500 AF of CVP water under the Exchange Contract to be delivered to the Transfer Recipient Districts via the Delta-Mendota Canal and the San Luis Canal. Groundwater from Wells #2 through #4 would be directly discharged into FCWD's Intake Canal and would not enter Mendota Pool. Grouhndwater from well #5 would be directly discharged into Mendota Pool where it would then enter FCWD's Intake Canal for internal distribution to its landowners.

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

Patricia Rivera
Native American Affairs Program Manager
US Bureau of Reclamation
Mid-Pacific Region
2800 Sacramento, California 95825
(916) 978-5194

Kristi this is admin. log into database thanks

FINAL ENVIRONMENTAL ASSESSMENT (14-001)

FIREBAUGH CANAL WATER DISTRICT TRANSFER OF UP TO 7,500 ACRE-FEET PER YEAR OF CENTRAL VALLEY PROJECT WATER TO PACHECO, PANOCHE, SAN LUIS AND WESTLANDS WATER DISTRICTS

Appendix E
2014 Water Quality Testing for Well #5

April 2014

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

NELAP Certification number: CA00046 (HW)
State Certification Number: CA1312 (WW & DW)

March 3, 2014

Firebaugh Canal Water District
P.O. Box 97
Mendota, California 93640

Attn: Jeff Bryant

Subject: Report of Data: Case 72699

Results in this report apply to the sample analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Dear Mr. Bryant,

One water sample was received on February 13, 2014, at 0.0°C. Written results are being provided on this March 3, 2014, for the requested analyses. All holding times were met.

For the EPA 200.7 and 200.8 analyses, the sample was digested according to EPA method 200.7/11.2.

For the SM 2510B analysis, the sample was prepared and analyzed according to the method.

No unusual problem or complication was encountered with this sample set.

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Sharon Dehmlow, Laboratory Director
APPL, Inc.

SD/ab
Enclosure
cc: File

Number of pages in this report: ____

Results

Firebaugh Canal Water District
P.O. Box 97
Mendota, CA 93640

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Jeff Bryant

Sample ID: WELL #5
Sample Collection Date: 02/13/14

APPL ID: AY92467
ARF: 72699

Analyte	Method	Result	PQL	Dilution	Units	Prep Date	Analysis Date
BORON (B)	200.7/11.2	0.66	0.250	10	mg/L	02/19/14	02/24/14
SELENIUM (SE)	200.8	ND	0.001	1	mg/L	02/19/14	02/24/14
SPECIFIC CONDUCTANCE	SM 2510B	1470	3.0	1	umhos/cm @ 25C	02/28/14	02/28/14

Reported: 03/03/14 1:56:45 PM

Multi-Analysis Report

FINAL ENVIRONMENTAL ASSESSMENT (14-001)

FIREBAUGH CANAL WATER DISTRICT TRANSFER OF UP TO 7,500 ACRE-FEET PER YEAR OF CENTRAL VALLEY PROJECT WATER TO PACHECO, PANOCHE, SAN LUIS AND WESTLANDS WATER DISTRICTS

Appendix F
Comment Letter and Reclamation's Response to Comments

April 2014

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

April 24, 2014

Rain Emerson
United States Bureau of Reclamation
1234 N Street
Fresno, California 93721
Fax (559) 487-5397
E-mail remerson@usbr.gov

Subject: Comments on the Draft Finding of No Significant Impact (FONSI) and Environmental Assessment (EA) for the Firebaugh Canal Water District (FCWD) Transfer of up to 7,500 acre-feet per year of Central Valley Project (CVP) Water to Pacheco, Panoche, San Luis and Westands Water Districts (Transfer Recipient Districts)

Dear Ms. Emerson:

As a trustee for California's fish and wildlife resources, the California Department of Fish and Wildlife (Department) has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Fish and Game Code § 1802). The Department has reviewed the above mentioned Draft FONSI/EA prepared by the United States Bureau of Reclamation (Reclamation) and provides the following comments in our role as both a Trustee Agency and a Responsible Agency under the California Environmental Quality Act.

The Draft EA-13-059 and FONSI-13-059 analyzes the environmental impacts of proposed water transfers (Proposed Action) for a five-year period (calendar year 2014 through 2018) of up to 7,500 acre-feet per year (AFY) of FCWD's CVP contract (Exchange Contract) supplies to the Transfer Recipient Districts. The proposed transfers would occur from April through December of each year water is transferred and would not exceed the maximum of 37,500 acre-fee (AF) over the five-year period.

In order to make FCWD's CVP water supplies available for the transfers, FCWD would pump up to 17 cubic feet per second (cfs) of groundwater (for a maximum of 36 AF per day) from four wells (Wells #2 through 5) to meet in-district demands in lieu of taking surface water deliveries dedicated to FCWD under its Exchange Contract. The pumped groundwater would be discharged into FCWD's conveyance system, freeing up 7,500 AF of CVP water under the Exchange Contract to be delivered to the Transfer Recipients Districts via the Delta-Mendota Canal (DMC) and the San Luis Canal (SLC).

Groundwater from Wells #2 through #4 would be directly discharged into FCWD's Intake Canal and would not enter Mendota Pool. Groundwater from Well #5 would be directly discharged into Mendota Pool, where it would then enter FCWD's Intake Canal for internal distribution to its landowners.

CDFW-1

The Department recommends that Reclamation require monitoring of FCWD's and the Transfer Recipient District's compliance with the environmental protection measures listed in Table 2-1 of the Draft EA/FONSI/EA. Reports documenting compliance with Table 2-1 should be submitted to the Department on an annual basis, with an emphasis on water quality and biological resource protection.

Thank you for the opportunity to provide comments on the 2014 Draft EA/FONSI. The Department looks forward to working with Reclamation and CCID to ensure that public trust resources are adequately protected as these water transfers are implemented.

If you have any questions regarding these comments, please contact Annette Tenneboe, Senior Environmental Scientist (Specialist), at (559) 243-4014, extension 231; annette.tenneboe@wildlife.ca.gov, or by writing to the California Department of Fish and Wildlife at 1234 East Shaw Avenue, Fresno, California 93710.

Sincerely,

Jeffrey R. Single, Ph.D.
Regional Manager
California Department of Fish and Wildlife
Central Region

ec: Paul Forsberg
James Rosauer
Andrew Gordus, Ph.D.
Annette Tenneboe
California Department of Fish and Wildlife

Response to California Department of Fish and Wildlife Comment Letter, April 24, 2014

CDFW-1 Thank you for providing comments. The California Department of Fish and Wildlife (CDFW) has accurately described the project description analyzed in Environmental Assessment (EA)-14-001 *Firebaugh Canal Water District Transfer of up to 7,500 acre-feet per year of Central Valley Project Water to Pacheco, Panoche, San Luis, and Westlands Water Districts*. As described in Section 2.2.1, environmental protection measures required in Table 2-1 will be implemented by Firebaugh Canal Water District and the Transfer Recipient Districts. In 2011, the Bureau of Reclamation's South-Central California Area Office (SCCAO) initiated an Environmental Commitment Program (ECP) to implement, track and evaluate environmental commitments identified in environmental documentation prepared pursuant to the National Environmental Policy Act. The primary purpose of the ECP is to provide SCCAO with a process for implementing, monitoring and evaluating the commitments required for environmental compliance. An ECP has been developed for EA-14-001 which includes all of the environmental protection measures listed in Table 2-1 which are specific to water quality and biological resources. As requested, Reclamation will share the ECP with CDFW on an annual basis.