

RECLAMATION

Managing Water in the West

Environmental Assessment/Initial Study

Central California Irrigation District East Ditch and Poso Canal Reservoirs Project

Bay-Delta Restoration Program: CALFED Water Use Efficiency Grant



**U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Regional Office
Sacramento, CA**

August 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.

Section 1 Introduction/Project Overview

This Environmental Assessment (EA) and Initial Study (IS) has been jointly prepared by the Bureau of Reclamation (Reclamation) as the lead federal agency and the Central California Irrigation District (CCID) as the lead state agency to satisfy the requirements of the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA), respectively. This EA/IS will examine the potential direct, indirect, and cumulative environmental impacts associated with providing federal grant funding to CCID to build their East Ditch and Poso Canal Reservoirs Project (Project).

1.1 Project Setting/Location

The Project involves constructing two regulating reservoirs within CCID's service area that would capture operational spill and agricultural tail water. The Project is located in Fresno and Merced counties, California (see Figure 2-1), roughly two and four miles from the City of Dos Palos.

1.2 Need for the Proposal/Project Objective

CCID needs to improve their internal water management on a total of 25 miles of affected canals by providing mid-stream regulation and storage. The Project would provide CCID with delivery flexibility to approximately 30,000 acres within their service area that would help facilitate irrigation system conversion to the more efficient buried drip and microsprinkler systems.

Furthermore, the reservoirs would recapture and reuse excess irrigation flow and agricultural tailwater to reduce the spread of suspended solids, pesticides, and other constituents of concern that could ultimately flow into Salt Slough.

Section 2 Proposed Action and Alternatives

2.1 No Action Alternative

Reclamation would not award CCID with a grant and the district would continue to operate and maintain their distribution system under existing conditions. The Project would not be built.

2.2 Proposed Action

Reclamation proposes to award CCID with a grant to fund a portion of the Project. The Project involves the construction of two separate regulating reservoirs complete with inlet and outlet pump stations, piped discharges, and supervisory control and data acquisition (SCADA) integrated controls. Reservoir levees would be constructed and formed from native material excavated from the interior footprint of the reservoir. More specifically, the Project consists of:

- **East Ditch Reservoir:** This reservoir is expected to occupy no more than 37.5 acres (including banks, roads, and other related appurtenances) with the storage capacity of 236 acre-feet (AF). The size of the reservoir is based on the preliminary design layout with 7 feet (ft) (from original grade) levees and an assumed maximum water depth of 5 ft.
- **Poso Canal Reservoir:** This reservoir is expected to have the capacity of 220 AF and occupy approximately 48 acres (including banks, roads, and other related appurtenances). The size of the reservoir is based on the preliminary design layout with an assumed maximum water depth of 5 ft.
- **Diversion Facilities:** The diversion facilities for both reservoirs would essentially be the same in form and function. Each reservoir would have one pump station to pump water from the served canal into the reservoir and a second pump station to pump from the reservoir into the served canal. Each pump station would consist of a cast in place or precast pump sump, two pumping units and discharge pipeline, and wingwalls to provide bank support. Each reservoir would include an electrical control building that will contain and protect the switchgear and variable speed controls. The electrical controls would be integrated with the district's SCADA system for remote monitoring and control. Each station is expected to have a 0.25 acre foot print (including electrical control building and discharge pipelines) and would be located on a shared levee between the reservoir and the canal.
- **Ground Disturbance:** Prior to construction, the reservoir sites would be cleaned of debris and scarified approximately 12 inches to native soil with 3-4 scrapers. Up to 4 ft below grade would be excavated. The scrapers would haul the scarified material off-site. Scrapers would be used to cut a 12 inch keyway underneath the levees. Scrapers (2-4 vehicles) would excavate material from the interior of the reservoir and place that material in lifts along the perimeter to form the levees. Water trucks (1-2 vehicles) and sheep's-foot compactors (2-3 vehicles) would traverse the levees to ensure necessary soil moisture and density. The levees would have a total height of seven feet from original grade to top of levee, with a 16 foot top width and an outside slope of 2:1 and inside slope of 3:1. Once the levees are constructed, the inside slope would be protected from erosion with a flexible liner or with large diameter rip rap.

Construction would begin as soon as permitted and would occur during the non-irrigation season when agricultural activities have ceased and irrigation canals are dry. Construction activities would take approximately 12 months to complete over a two-year period.

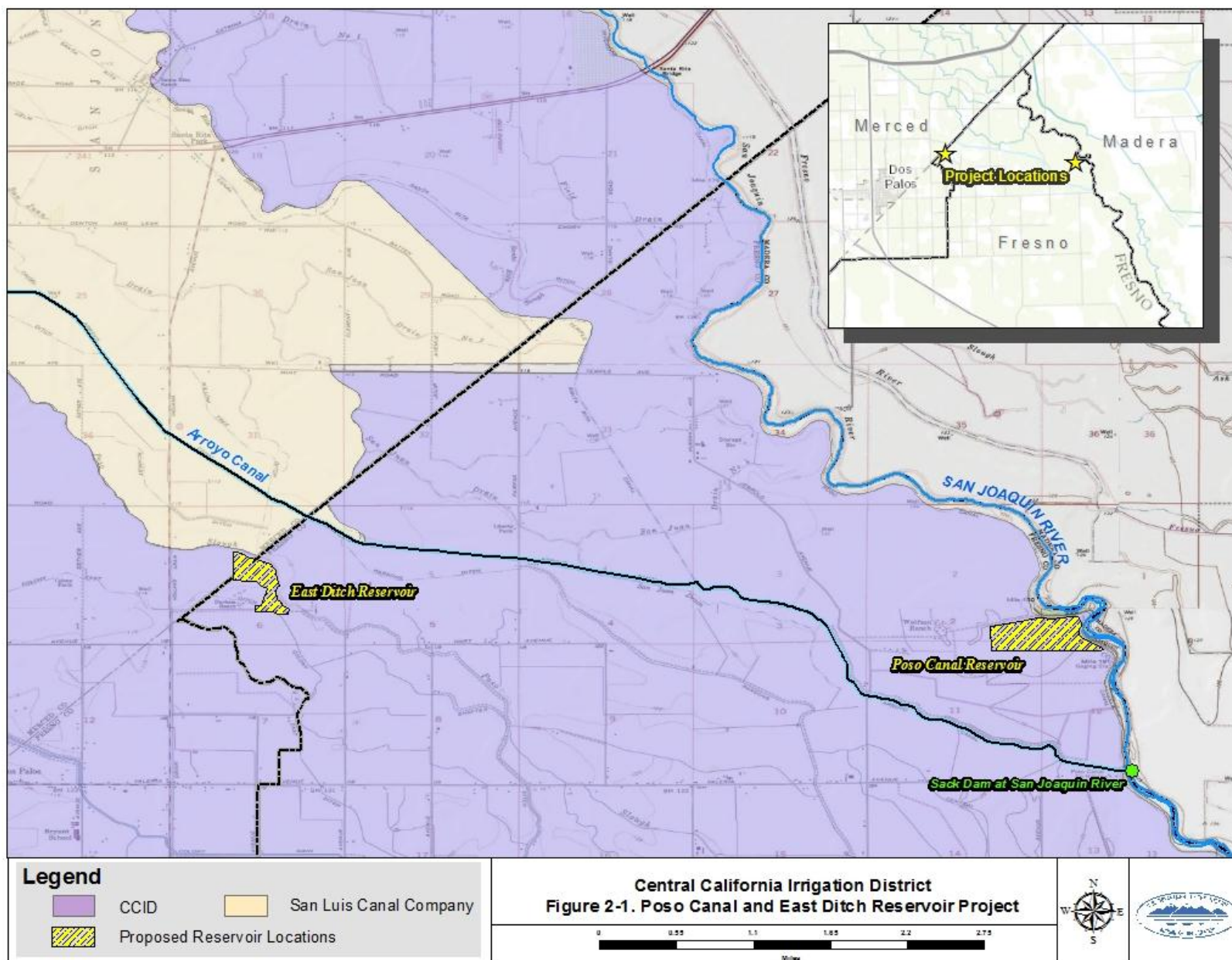
2.2.1 Environmental Protection Measures and Commitments

As part of the Proposed Action, the following environmental protection measures and commitments will be implemented by CCID to avoid, minimize, and/or reduce potential environmental impacts associated with the Project:

- Construction activities at both reservoir locations will not occur from March 1 to August 31 to avoid impacts to nesting Swainson's hawk (*Buteo swainsoni*) and other raptors protected by the Migratory Bird Treaty Act (MBTA). If construction must occur during

the nesting season, a qualified biologist will conduct pre-construction surveys for active raptor nests on and adjacent to the action area, where appropriate, within 30 days of ground disturbing activities. Surveys for Swainson's hawk nests would extend out to 1/4 mile from the action area. If an active nest is located within 1/4 mile of the action area, then CCID will coordinate with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (DFW) to establish a suitable construction-free buffer around the nest. The buffer(s) will be identified on the ground with flagging, fencing or by other easily visible means, and will be maintained until a biologist has determined that the young have fledged;

- In order to avoid impacts to cliff swallow (*Petrochelidon pyrrhonota*) nursery sites (weir within the Poso Canal), project-related activities will occur outside the avian nesting season (March 1 to August 31). If project-related activities occur during the nesting season, a qualified biologist will conduct pre-construction surveys for active nursery sites within 30 days of the on-set of these activities. Should any active nursery sites be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer (~300 ft) around the nursery site;
- To avoid and/or minimize potential impacts to giant garter snake (GGS – *Thamnophis gigas*), a qualified biologist will determine appropriate locations to install exclusionary fencing to preclude GGS immigration into the action area. Pre-construction surveys of the action area for the presence or signs of GGS will be conducted no less than 24 hours prior to construction activities. Pre-construction surveys will be repeated if a lapse in construction activity for two weeks or greater has occurred. If surveys find the presence or signs of GGS and adverse impacts cannot be avoided, the activities at these locations will be halted and consultation with the USFWS will be required.
- Dust Control Measures:
 - All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or covered with a tarp or other suitable cover or vegetative ground cover.
 - All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
 - When materials are transported offsite, all material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
 - Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, the piles will be effectively stabilized of fugitive dust emissions utilizing sufficient water stabilizer/suppressant.



Section 3 Affected Environment and Environmental Consequences

Potential impacts to the following resources were considered and found to be minor. Brief explanations for the impacts are provided below:

- Indian Sacred Sites: The Proposed Action is not on federal lands, and will not affect and/or prohibit access to and ceremonial use of Indian sacred sites.
- Indian Trust Assets (ITA): The Proposed Action does not have the potential to affect ITA.
- Environmental Justice: There are no economically disadvantaged or minority populations that would be disproportionately affected by the Proposed Action.

3.1 No Action Alternative

Under the No Action Alternative, there would be no change to existing conditions and current trends of the affected environment.

3.2 Proposed Action

3.2.1 Special-Status Biological Resources

The action area is the footprint of the proposed earthmoving activities for both reservoirs and a 200-foot buffer around those activities in which noise and dust could occur. The present land use around the action area consists of agricultural fields and orchards, farm roads and shoulders, and existing ditches and canal infrastructure. The action area has been heavily cultivated and managed for decades, and herbicides are routinely used to control unwanted vegetation. The action area also includes wildlife areas downstream of the proposed reservoirs as a result of potential indirect impacts to the water quantity and/or quality that will be introduced into Salt Slough.

3.2.1.1 Swainson's hawk

Swainson's hawk are listed as threatened by the California Fish and Game Commission and is also protected under the MBTA. Swainson's hawks are known to nest within the vicinity of the action area, which also contains suitable foraging habitat. The riparian corridor along the San Joaquin River east of the Poso Canal Reservoir site include several known occurrences and one individual was spotted in a large cottonwood during a site investigation on March 29, 2013. Several large trees southwest of the East Ditch Reservoir site could potentially be used for nesting, with one nesting site being identified during the site investigation but was not confirmed as being occupied. No trees will be removed as part of the Project; however, project-related noise disturbance from construction and equipment could have indirect impacts to Swainson's hawks. Noise disturbance could cause adults to abandon the nests too early and leave any eggs or chicks vulnerable. As noted in Section 2.2.1, construction-related activities will occur outside of the nesting season, to the extent possible. If construction activities cannot avoid the nesting season,

pre-construction surveys for raptors will be conducted for the presence of occupied nests. In coordination with the DFW, an appropriate construction-free buffer zone will be established around each nest until a biologist has determined that chicks have fledged.

3.2.1.2 *Cliff swallow*

Cliff swallow are protected under the MBTA. A weir located on the Poso Canal near the eastern edge of the proposed Poso Canal Reservoir site supports a small colony of nesting cliff swallows. No construction would occur on the weir; however, noise-related disturbance from construction and equipment could indirectly impact the nursery site. To avoid impacts to active cliff swallow nursery sites, any project-related work performed near the weir will occur outside of the nesting season. If project-related work must occur during the nesting season, a suitable construction-free buffer zone (~300 ft) will be established until the end of the nesting season.

3.2.1.3 *Giant garter snake*

GGS are listed as threatened under the federal Endangered Species Act (ESA) and by the California Fish and Game Commission. Construction equipment and activities associated with excavating the reservoirs have the potential to cause injury to and/or mortality of GGS; however, the only feature within the action area considered as suitable habitat for GGS is an approximately 0.64 acre freshwater pond area on the adjacent property 200 ft southwest of the proposed East Ditch Reservoir site. No construction activities will occur within the freshwater pond area and exclusionary fencing will be installed at this location, and any other location(s) identified by a qualified biologist, to prevent GGS from entering the construction zone. The rest of the action area is characterized as being unsuitable (agricultural lands) to marginal at best (approximately 0.85 miles of agricultural ditches, which lack vegetation). Permanent ground disturbance within agricultural lands will be excavated for both reservoir sites; however, these lands are considered unsuitable upland habitat. Temporary ground disturbance to irrigation ditches will be restored. In addition, construction activities will occur during the winter period when GGS are less active and unlikely to disperse from the freshwater pond area into the construction area.

It is highly unlikely that GGS occur at either site considering the overall character of the potential habitat, the incompatible land uses within and immediately surrounding the action area, the lack of suitable habitat, the distance of the action area from suitable habitats where GGS presence has been verified recently, and the relatively low densities of GGS at the known occupied sites most proximal to the action area. As noted in Section 2.2.1, pre-construction surveys of the action area for the presence or signs of GGS will be conducted no less than 24 hours prior to construction activities. Pre-construction surveys will be repeated if a lapse in construction activity for two weeks or greater has occurred. If surveys find the presence or signs of GGS and adverse impacts cannot be avoided, the activities at these locations will be halted and consultation with the USFWS will be required.

It is also highly unlikely that GGS from the most recent and nearest verified occurrence would disperse into the action area and/or use the agricultural ditches within the action area for connectivity to distant suitable habitat due to the lack of adequate aquatic foraging habitat, incompatible surrounding land use, and the relatively long distance that GGS would need to travel to reach the action area and then continue traveling to reach the nearest suitable habitat. In addition, most construction activities would occur during the winter when the agricultural

ditches lack water, and when GGS are dormant and less likely to be active. To preclude any potential immigration of GGS into the action area, a qualified biologist will determine appropriate locations to install exclusionary fencing. As a result, construction activities at both proposed reservoir locations are not likely to adversely affect GGS.

The action area also includes wildlife areas downstream of the proposed reservoirs as a result of potential indirect impacts to the water quantity and/or quality that will be introduced into Salt Slough. The Los Banos Wildlife Area is one of several wildlife areas along Salt Slough that has the ability to pump water from the slough and into their wetland channel network system. Refer to Section 3.2.2 for a description of the affected water conveyance features and wildlife areas. Potential downstream indirect impacts to GGS are not expected to occur as there are no records of individuals captured at the Los Banos Wildlife Area since the mid-1970s¹. Other wildlife areas that could potentially divert water from Salt Slough are the San Luis Unit and Salt Slough Unit wildlife areas; however, no records of GGS have been recorded at either area. As a result, there would be no effect to GGS at these wildlife areas downstream of the proposed reservoir locations.

3.2.2 Water Resources

The proposed East Ditch Reservoir site is located adjacent to the Colony East Ditch in the southeasterly part of CCID. At this location, the East Ditch Reservoir could capture up to 2,000 AF/year of operational spill water from the East Ditch, Shafter Ditch Spill, and Parsons Ditch Spill, and 4,000 AF/year of drain water pumped from Poso Slough Drainage and Holland Drain Drainage. This reservoir is expected to have a storage capacity of 236 AF which could provide an easily regulated flow rate to the East Ditch for irrigation deliveries to the surrounding agricultural lands.

The proposed Poso Canal Reservoir is located adjacent to the Poso Canal in the southeasterly part of CCID. At this location, the Poso Canal Reservoir could capture up to 6,000 AF/year of excess flows from the Poso Canal and provide a new, easily regulated flow rate back into the Poso Canal. This reservoir is expected to have a capacity of 220 AF which could provide an easily regulated flow rate to the Santa Rita Canal and Riverside Canal for irrigation deliveries to the surrounding agricultural lands.

Both reservoirs would be capturing water that would have discharged into and conveyed through the Poso Canal. The Poso Canal travels northwest for roughly 15 air miles containing water that could have potentially been diverted and/or mixed with other discharges from surrounding agricultural drainages along the way, before discharging into Salt Slough Ditch. The Poso Canal is one of many tributaries to Salt Slough Ditch, which connects with the West Delta Drain (another major tributary to Salt Slough Ditch with its own drainage network) just above Sand Dam. A survey conducted in 1990 by the Central Valley Regional Water Quality Control Board (RWQCB) found that Salt Slough Ditch had 119 discharges of which Poso Canal is one of five major tributaries². In general, Salt Slough Ditch contains agricultural drainage, tailwater runoff,

¹ California Department of Fish and Game. 2003. "Progress Report for the San Joaquin Valley Giant Garter Snake Conservation Project." Los Banos, California.

² California Regional Water Quality Control Board. 1990. "Survey of Tributaries to Salt Slough – Merced County, California." Central Valley Region. Sacramento, California.

and operation spill from irrigated lands within San Luis Canal Company and CCID. The San Luis Canal Company has several diversions on Salt Slough Ditch, as do several private landowners. There are 14 permanent and 3 temporary diversions on Salt Slough Ditch. Below Sand Dam, the drain turns into Salt Slough and is fed by another major tributary, South Mud Slough (which also has its own myriad of drainage networks), before eventually discharging into the San Joaquin River. Salt Slough has been identified as being one of two major sources of agricultural drainage pollutant load into the San Joaquin River.

The Westside San Joaquin River Coalition (Westside Coalition – of which CCID is a member) has an order from the RWQCB to reduce or eliminate the amount of pesticides and suspended sediments that could ultimately be discharged into the San Joaquin River from Salt Slough. As mentioned earlier, the water both reservoirs could potentially capture would consist of agricultural drainage, tailwater runoff, and operational spill. This water mixture is often high in suspended solids and pesticides, and is considered to be the cause of water quality exceedances (values developed by the RWQCB) reported by the Westside Coalition for the Irrigated Lands Program³. In 2006, the State Water Resources Control Board (SWRCB) identified Salt Slough as being an impaired water body in California due to the exceedances in selenium water quality objectives⁴. The Westside Coalition is tasked with helping growers comply with the Irrigated Lands Program regulations by meeting water quality criteria and the most practical method to do this is to not discharge drainage into Salt Slough.

There are monitoring stations located throughout the Westside Coalition study area, including the Poso Slough, Salt Slough at Sand Dam, and Salt Slough at Lander Avenue. According to water quality data, the water being captured by the proposed reservoirs exceed the thresholds for certain constituents identified by the Westside Coalition to be a problem. Indirect impacts to water quality downstream of the reservoir locations would vary throughout the season and would be difficult to distinguish when considering the hundreds of discharges that could contribute to the water mixture below Sand Dam. Depending on the hydrologic conditions and the ratio of agricultural drainage to operational spill, this water could act either as a pollutant contributor or pollutant diluter. Typically, water quality in the entire study area is poor during low flows in the low-flow winter months and good during the irrigation season, and it would be difficult to determine where the molecules originate from upstream of Sand Dam. As such, the project would assist CCID in complying with the order from the RWQCB to limit pesticide and suspended sediments from discharging into the Salt Slough, and ultimately into the San Joaquin River.

Before discharging into the San Joaquin River, Salt Slough borders several wildlife areas that have the potential to divert water from the slough. The San Luis Unit and Salt Slough Unit wildlife areas both assert appropriative water rights on Salt Slough; however the USFWS (which manages both wildlife areas) have not historically used water from Salt Slough due to the poor

³ Westside Coalition Irrigated Lands Program:

http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_land/management_plans_reviews/coalitions/westside/index.shtml

⁴ State Water Resources Control Board. 2013. Impaired Water Bodies.

http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml

quality⁵. After the Grasslands Bypass Project went into effect, the monthly mean concentration of selenium in Salt Slough has been below the RWQCB standard⁶. However, occasional excessive rain events have led to selenium concentration increases in Salt Slough, which resulted in exceedances of the water quality objective for the wetland supply channels. As such, the SWRCB included Salt Slough on the 2006 list of impaired water bodies for California as a result of exceedances of selenium water quality objectives for those channels. Overall, Salt Slough has attained or is nearing normal background selenium concentrations in water⁶. The Los Banos Wildlife Area has an agreement with the San Luis Canal Company for up to 4,000 AF/year, which does not include the water potentially conserved by CCID under the proposed action. The Los Banos Wildlife Area also asserts an appropriative water right on Salt Slough, but use is occasionally limited due to water quality levels and other senior rights holders. The Poso Canal is not a conveyance facility for any refuge water that is required to be delivered to the wildlife areas, nor is CCID required to release any water into the Poso Canal for any other purposes (although construction of the Project would not preclude such a delivery). Downstream impacts as a result of the Proposed Action will not hinder required water deliveries by San Luis Canal Company or Reclamation to the wildlife areas. As discussed earlier, indirect impacts to water quality downstream of the reservoir locations would vary throughout the season and would be difficult to distinguish from the various sources. Taking into consideration the Grasslands Bypass Project, typical water quality in the entire study area is still expected to be poor during low flows in the low-flow winter months and good during the irrigation season.

3.2.3 Land Use

The proposed East Ditch Reservoir site is currently used for summer row crop agriculture and was farmed in cotton for the last two years. Other crops grown in the past likely include melons, tomatoes, wheat, and corn. This site is bounded by Poso Slough and agricultural fields to the north and east; Colony East Ditch, East Ditch Road, Dixon Road, and agricultural fields to the south; and an alfalfa field and cattle ranch to the west.

The proposed Poso Canal Reservoir site is located west of the San Joaquin River. The property is currently used for summer row crop agriculture and was farmed in cotton for the last two years. Other crops grown in the past likely include melons, tomatoes, wheat, and corn. The site is bounded by an unnamed irrigation ditch and agricultural fields to the north; the Poso Canal, the San Joaquin River, and agricultural fields to the north and east; an unnamed irrigation or drainage ditch and an alfalfa field to the south; and an agricultural field to the west. The portion of the San Joaquin River east of this site ranges from approximately 26 to 125 ft wide of riparian habitat.

Both reservoir locations would occupy approximately 85.5 acres of land that is currently being used for summer row crops; however, these lands are expected to be bare and tilled when construction is to begin during the winter months. Although these lands are zoned for agriculture, conversion to reservoirs for the purposes of storing and regulating water for irrigation is

⁵ Bureau of Reclamation. 2001. "Refuge Supply Program – Long-Term Water Supply Agreements, San Joaquin River Basin." Environmental Assessment. Sacramento, California.

http://www.usbr.gov/mp/cvpia/3406d/env_docs/final/rws_san_joaquin_river_basin_01-2001_fnl.pdf

⁶ USFWS. 2009. "Endangered Species Consultation on the Proposed Continuation of the Grasslands Bypass Project, 2010-2019." 81420-2009-F-1036. Sacramento Fish and Wildlife Office. Sacramento, CA.

considered to be consistent with and related to agricultural practice. In addition, the reservoirs would provide CCID with water delivery flexibility to continue supporting existing cropping patterns and agricultural trends to an approximately 30,000-acre service area. No excavation or other construction activities will occur within the riparian habitat along the San Joaquin River.

3.2.4 Cultural Resources

The Proposed Action is a Federal undertaking pursuant to Section 301(7) of the National Historic Preservation Act (NHPA), requiring compliance with Section 106 as outlined at 36 CFR Part 800. The Project is located on CCID-owned land on the western side of the San Joaquin Valley, an area with a long history of human habitation and use. A wide range of cultural resources, from pre-contact through historic times, are common in this geographic region. In an effort to identify historic properties (i.e., cultural resources eligible for inclusion in the National Register of Historic Places) that may be affected by the undertaking in the proposed action area of potential effects (APE), CCID contracted with Applied EarthWorks, Inc. to conduct a cultural resources investigation. The identification efforts by Applied EarthWorks, Inc. included records searches at the Central California Information Center and the Southern San Joaquin Valley Information Center, archival research, a pedestrian survey of the APE and adjacent areas, and limited subsurface archaeological testing. As a result of these efforts, two isolated prehistoric artifacts, one disturbed prehistoric archaeological site, and four historic-era cultural resources (i.e., Durham/Hunger Ranch Complex, East Colony Ditch, Poso Slough, and Poso Canal) were identified in or adjacent to the APE.

Construction activities associated with the Project have the potential to affect and/or modify the affected environment; however, based on the information and recommendations provided by Applied EarthWorks, Inc. (Lloyd et al. 2013)⁷, Reclamation has determined that none of the cultural resources identified in or adjacent to the APE are eligible for inclusion in the National Register of Historic Places. Pursuant to 36 CFR §800.4(d)(1), Reclamation will initiate consultation with the California State Historic Preservation Officer (SHPO) on a finding of no historic properties affected for the undertaking.

3.2.5 Air Quality and Greenhouse Gases

The Project area is located within the San Joaquin Valley Air Basin (SJVAB), which is regulated by the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAB has reached National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) for criteria pollutants of concern except for: ozone (O₃), inhalable particulate matter between 2.5 and 10 microns in diameter (PM₁₀), and particulate matter less than 2.5 microns in diameter (PM_{2.5}). As a result, the emissions of most concern are O₃ (which includes precursors such as volatile organic compounds [VOC] and nitrogen oxides [NO_x]), PM₁₀, and PM_{2.5}. Table 3-2 below shows the attainment status and *de minimis* threshold for general conformity for the criteria pollutants of most concern.

⁷ Lloyd, Jay B., Randy Baloian, Matthew D. Armstrong, Michale J. Mirro, and Aubrie Morlet. 2013. "Cultural Resources Investigations for the Central California Irrigation District's Proposed Poso and East Ditch Reservoirs, Fresno and Merced Counties, California." Applied EarthWorks, Inc. Fresno, CA.

Table 3-2. SJVAB Attainment Status and <i>De Minimis</i> Thresholds for Federal Conformity Determinations		
Pollutant	Attainment Status^a	(tons/year)
VOC (as ozone precursor)	Nonattainment ^d	10 ^b
NO _x (as an ozone precursor)	Nonattainment ^d	10 ^b
PM ₁₀	Nonattainment (CAAQS) Attainment (NAAQS)	15 ^c
PM _{2.5}	Nonattainment	100 15 ^c
^a Source: http://www.arb.ca.gov/desig/adm/adm.htm ^b 40 CFR 93.153 ^c SJVAPCD Recommended Threshold ^d The SJVAB is designated as Extreme for O ₃ NAAQS		

Construction emissions would vary from day to day and by activity, depending on the timing and intensity of construction, and wind speed and direction. Generally, air quality impacts from the Proposed Action would be localized in nature and decrease with distance. Ground disturbing activities would result in the temporary emissions of fugitive dust and vehicle combustion pollutants during the following activities:

- On-site earthwork (clearing, grading, excavation, compacting, and stockpiling)
- On-site construction equipment and haul truck engine emissions

Calculated emissions from the Proposed Action were estimated using the California Emissions Estimator Model for reactive organic gases (ROG)⁸, NO_x, PM₁₀, and PM_{2.5}. Total project emissions are presented in Table 3-3 below:

Table 3-3. Estimated Project Emissions^a	
Pollutant	tons/year
ROG/VOC	0.8
NO _x	9.4
PM ₁₀	4.8
PM _{2.5}	1.2
Carbon dioxide equivalents	887.9

^a Source: CalEEMod Version 2011.1.1

As shown in Table 3-3 above, the Proposed Action has been estimated to emit less than the *de minimis* threshold for NO_x and ROG/VOC as O₃ precursors and PM_{2.5}; therefore, a federal general conformity analysis report is not required. In addition, PM₁₀ emissions from the Proposed Action have been estimated to be well below the SJVAPCD threshold of 15 tons/year. As noted in Section 2.2.2, dust control measures would be implemented as part of the Proposed Action to suppress emissions of PM₁₀. Greenhouse gas emissions from construction equipment, shown as carbon dioxide equivalents in Table 3-3, will be temporary. Long-term operation of the

⁸ The term “volatile organic compounds” are synonymous with “reactive organic gases” for the purposes of this document since both terms refer to hydrocarbon compounds that contribute to ozone formation.

reservoir inlet/outlet pump stations would involve emissions of greenhouse gases, but the amount would be minimal and come nowhere close to any local, state, or federal levels of concern for stationary sources.

3.3 Cumulative Impacts

Cumulative impacts from the Grasslands Bypass Project were discussed in Section 3.2.2.

Since 2005, the San Joaquin River Exchange Contractors Water Authority (of which CCID is a part) have been implementing tailwater recovery projects in order to make water available for transfer under their Water Transfer Program, and have recently completed a 25-year extension to continue the program from 2014 to 2038⁹. Under this Water Transfer Program, up to 40,000 AF have historically been made available from recapturing and reusing tailwater that would have eventually flowed into Mud Slough and Salt Slough. Out of the 40,000 AF, it is not specified as to how much would have been discharged into Salt Slough. The Proposed Action is expected to recapture up to 10,000 AF of tailwater, drainage, and spill that could have discharged into Salt Slough (unless it is diverted before reaching Salt Slough). While flow in Salt Slough could decrease as a result of the Proposed Action, and wildlife areas with appropriative water rights on Salt Slough could be affected, the Poso Canal is not a conveyance facility for any refuge water that is required to be delivered to the wildlife areas, nor is CCID required to release any water into the Poso Canal for any other purposes. Downstream impacts as a result of the Proposed Action will not hinder required water deliveries by San Luis Canal Company or Reclamation to the wildlife areas. Salt Slough was identified by the RWQCB as being one of two major tributaries of salt and selenium loads into the San Joaquin River. The Proposed Action is expected to contribute to the cumulative effort to reduce these pollutant loads into the San Joaquin River by reducing the pollutant load into the Poso Canal, which drains into Salt Slough.

⁹ Reclamation. 2014. Water Transfer Program for the San Joaquin River Exchange Contractors Water Authority, 2014-2038. Bureau of Reclamation. Sacramento, CA.
http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=9086

Section 4 CEQA Environmental Checklist

This checklist identifies physical, biological, social and economic factors that might be affected by the Project. Although some project elements could result in an environmental affect, modifications were made to the project description or mitigation measures have been proposed that would reduce all impacts to less than significant. The words “significant” and “significance” used throughout the following checklist and section are related to CEQA, not NEPA, impacts. In many cases, background studies performed in connection with the Project indicate no impacts. A “No Impact” answer in the last column reflects this determination. Where there is a need to clarify any issues, discussions are included in at the end of this section.

I. AESTHETICS

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Remarks: Much of the construction will be above grade and would be visible but consistent with other agricultural support facilities (such as canals and pump stations) this is a less than significant impact.

II. AGRICULTURE RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

Would the project:

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared	☐	☐	☐	☒

pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | ☐ | ☐ | ☒ | ☐ |

Remarks: Due to the projected increase in agricultural productivity in the service area caused by the project, the loss of farmland to the reservoirs is a less than significant impact

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

- | | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☐ | ☒ |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | ☐ | ☐ | ☐ | ☒ |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | ☐ | ☐ | ☐ | ☒ |
| d) Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ☐ | ☒ |
| e) Create objectionable odors affecting a substantial number of people? | ☐ | ☐ | ☐ | ☒ |
| f) Substantially alter air movement, moisture, or temperature, or cause any substantial change in climate? | ☐ | ☐ | ☐ | ☒ |

IV. BIOLOGICAL RESOURCES

Potentially Significant Impact	Less than Significant With	Less than Significant Impact	No Impact
--------------------------------	----------------------------	------------------------------	-----------

Would the project:

Mitigation
Incorporation

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | ☐ | ☒ | ☐ | ☐ |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | ☐ | ☐ | ☐ | ☒ |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☐ | ☒ |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | ☐ | ☐ | ☐ | ☒ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ☒ |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☐ | ☒ |

Remarks: A pre-construction biological survey will be completed prior to the start of construction. Avoidance and mitigation measures will be implemented according to the results of that survey to prevent impacts to biological resources.

V. CULTURAL RESOURCES

Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
--------------------------------------	---	------------------------------------	-----------

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | ☐ | ☐ | ☐ | ☒ |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | ☐ | ☐ | ☐ | ☒ |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☐ | ☐ | ☒ |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | ☐ | ☐ | ☐ | ☒ |

VI. GEOLOGY AND SOILS

Would the project:

- | | Potentially
Significant
Impact | Less than
Significant
With
Mitigation
Incorporation | Less than
Significant
Impact | No Impact |
|--|--------------------------------------|---|------------------------------------|-------------------------------------|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | ☐ | ☐ | ☐ | ☒ |
| ii) Strong seismic ground shaking? | ☐ | ☐ | ☐ | ☒ |
| iii) Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☐ | ☒ |
| iv) Landslides? | ☐ | ☐ | ☐ | ☒ |
| b) Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ☐ | ☒ |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | ☐ | ☐ | ☐ | ☒ |
| d) Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property? | ☐ | ☐ | ☐ | ☒ |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | ☐ | ☐ | ☐ | ☒ |

VII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a)	☐	☐	☐	☒
b)	☐	☐	☐	☒
c)	☐	☐	☐	☒
d)	☐	☐	☐	☒
e)	☐	☐	☐	☒
f)	☐	☐	☐	☒
g)	☐	☐	☐	☒
h)	☐	☐	☐	☒

VIII. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
--	--------------------------------------	---	------------------------------------	-----------

a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒
	Potentially Significant	Less than Significant	Less than Significant	No Impact

IX. LAND USE AND PLANNING

Would the project:

- | | Impact | With
Mitigation
Incorporation | Impact | |
|---|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Physically divide an established community? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ☐ | ☒ |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | ☐ | ☐ | ☐ | ☒ |

X. MINERAL RESOURCES

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ☐ | ☐ | ☐ | ☒ |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | ☐ | ☐ | ☐ | ☒ |

XI. NOISE

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ☐ | ☒ | ☐ |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ☒ | ☐ |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☐ | ☒ | ☐ |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☐ | ☐ | ☒ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport | ☐ | ☐ | ☐ | ☒ |

or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Remarks: A small amount of noise and ground-borne vibration will be generated during construction, however because the area is sparsely populated and this increase would be limited to the construction period, this is a less than significant impact.

XII. POPULATION AND HOUSING

Would the project:

- a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
☐	☐	☐	☒
☐	☐	☐	☒
☐	☐	☐	☒

XIV. PUBLIC SERVICES:

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

XV. RECREATION:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

XVI. TRANSPORTATION/TRAFFIC:

Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or	☐	☐	☐	☒

pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

XVII. UTILITIES AND SERVICE SYSTEMS:

Would the project:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?
- e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- g) Comply with federal, state, and local statutes and regulations related to solid waste?

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
--------------------------------------	--	------------------------------------	-----------

☐	☐	☐	☒
--------------------------	--------------------------	--------------------------	-------------------------------------

☐	☐	☐	☒
--------------------------	--------------------------	--------------------------	-------------------------------------

☐	☐	☐	☒
--------------------------	--------------------------	--------------------------	-------------------------------------

☐	☐	☐	☒
--------------------------	--------------------------	--------------------------	-------------------------------------

☐	☐	☐	☒
--------------------------	--------------------------	--------------------------	-------------------------------------

☐	☐	☐	☒
--------------------------	--------------------------	--------------------------	-------------------------------------

☐	☐	☐	☒
--------------------------	--------------------------	--------------------------	-------------------------------------

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
--------------------------------------	--	------------------------------------	-----------

☐	☐	☐	☒
--------------------------	--------------------------	--------------------------	-------------------------------------

the major periods of California history or prehistory?

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

☐	☐	☐	☒
--------------------------	--------------------------	--------------------------	-------------------------------------

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

☐	☐	☐	☒
--------------------------	--------------------------	--------------------------	-------------------------------------

Discussion of Potentially Affected Environmental Factors

Aesthetics

The proposed project would include the construction of facilities related to the support of agricultural activities common in the area. The proposed facilities would be similar to existing facilities in the region and would not have an adverse effect on the existing vista nor dramatically change the landscape.

Agricultural Resources

The proposed project would construct facilities used to support agricultural activities and would not have an adverse impact on agricultural resources or conflict with existing zoning ordinances. While farmland in the footprint of the reservoirs would be lost, a substantial increase in agricultural productivity in the service area of the proposed reservoirs is expected. Therefore, impact of the loss of farmland to reservoirs is less than significant.

Air Quality and Climate Change

Temporary project construction emissions would be minimal as demonstrated in Table 3, and there would be no operational emissions. The project would not significantly contribute to the emission of GHGs, so the impact would be less than significant. Air quality and global climate change impacts are also discussed in Section 3.

Biological Resources

Impacts are discussed in Section 3.

Cultural Resources

Impacts are discussed in Section 3.

Geology and Soils

The proposed project would not have any impact on soil erosion or expose people or structures to potential adverse effects.

Hazards and Hazardous Materials

No hazardous materials would be used or exposed for the proposed project.

Hydrology and Water Quality

The proposed project would store water for agricultural beneficial use. No adverse impacts to water quality would occur. Blending the high quality spill water with drain water should improve the overall quality of their irrigation deliveries. The proposed reservoirs would be parallel and immediately adjacent to existing irrigation channels so existing drainage patterns would not be significantly altered. The proposed project would not impact groundwater supply or quality.

Land Use and Planning

The proposed project is located in western Merced County, not in the vicinity of an established community. The site is zoned AE-20 and the proposed project is in conformance with that zone. There is no adopted Habitat Conservation Plan in the vicinity. There is no impact.

Mineral Resources

There are no mineral resources in the vicinity. There is no impact.

Noise

The proposed project would result in an increase in ambient noise levels during construction, however, these noise levels are not expected to be substantial nor exceed established standards. There are no residences or schools in the vicinity of the proposed project that would be impacted by noise levels during construction. Operation of the project pumps would result in a minor increase in ambient noise levels. Since there are no dwellings in the vicinity of the proposed pumps, the impact would be less than significant.

Population and Housing, Public Services, Recreation

The project does not involve the addition of any new housing and would not require the need for any additional public services or recreational facilities.

Transportation/Traffic

The project would not cause an increase in local traffic.

Utilities and Service Systems

The project would not require an expansion of any utilities. There is no impact.

Mandatory Findings of Significance

The proposed project would not have the potential to degrade the environment or impact habitat or wildlife species. The proposed project would not contribute to significant cumulative impacts or have impacts that would cause adverse effects to humans.

Section 5 Consultation and Coordination

5.1 Endangered Species Act (16 USC § 1531 et seq.)

Section 7 of the ESA requires Federal agencies, in consultation with the Secretary of the Interior, 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.

In a memo dated August 11, 2013, Reclamation requested written concurrence from the USFWS on the determination that the Proposed Action is not likely to adversely affect GGS.

5.2 National Historic Preservation Act (16 USC § 470 et seq.)

The NHPA of 1966, as amended, is the primary legislation outlining the Federal government's responsibilities related to cultural resources. Section 106 of the NHPA requires Federal agencies to take into consideration the effects of their undertakings on historic properties and to consult with the SHPO, or Tribal Historic Preservation Officer where applicable, on those effects.

Pursuant to 36 CFR §800.4(d)(1), Reclamation will initiate consultation with the California SHPO on a finding of no historic properties affected for the proposed undertaking. The Project may not commence prior to the conclusion of the Section 106 process.

In accordance with the requirement of 36 CFR Part 800, Reclamation identified Table Mountain Rancheria, Cold Springs Rancheria of Mono Indians, Big Sandy Rancheria of Mono Indians, North Fork Rancheria of Mono Indians, Santa Rosa Tachi-Yokut Tribe, and Picayune Rancheria of Chukchansi Indians as Indian tribes who might attach religious and cultural significance to historic properties within the APE. These Indian tribes were contacted by Reclamation and invited to participate in the Section 106 process as consulting parties. To date, no concerns related to cultural resources in the APE have been raised by these tribes.