

Patterson Irrigation District

Water Transfer to the South Valley Water Resources Authority

Draft Initial Study/Negative Declaration

Patterson, California
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Prepared for:
Patterson Irrigation District
Patterson, CA

Prepared by:
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Acronyms and Abbreviations

AB	Assembly Bill
AF	Acre Feet (Foot)
AF/Y	Acre-feet per Year
ARB	Air Resources Board
BPS	Best Performance Standards
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEC	California Energy Commission's
CEQA	California Environmental Quality Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
cfs	cubic feet per second
CH ₄	Methane
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CRHR	California Register of Historical Resources
CVP	Central Valley Project
District	Patterson Irrigation District
DMC	Delta-Mendota Canal
DRWD	Dudley Ridge Water District
DWR	Department of Water Resources
EIR	Environmental Impact Report
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
GHGs	Greenhouse Gases
GSA	Groundwater Sustainability Agencies
GSP	Groundwater Sustainability Plan
HAP	Hazardous Air Pollutants
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
IS/ND	Initial Study/Negative Declaration
KCWA	Kern County Water Agency
µg/m ³	Micrograms per Cubic Meter

MND.....	Mitigated Negative Declaration
N ₂ O	Nitrous Oxide
NAAQS.....	National Ambient Air Quality Standards
ND	Negative Declaration
NESHAP.....	National Emission Standards for Hazardous Air Pollutants
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxide
NRHP.....	National Register of Historical Places
O ₃	Ozone
Pb	Lead
PID	Patterson Irrigation District
PM ₁₀	Particulate Matter less than 10 microns in diameter
PM _{2.5}	Particulate Matter less than 2.5 microns in diameter
PPB	Parts per Billion
PPM	Parts per Million
PRC	Public Resource Code
Project.....	Water Transfer to the South Valley Water Resources Authority
PVWD	Pleasant Valley Water District
Reclamation	United States Bureau of Reclamation
ROG.....	Reactive Organic Gases
SB	Senate Bill
SCADA.....	Supervisory Control And Data Acquisition (System)
SGMA.....	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SJVAB.....	San Joaquin Valley Air Basin
SJVAPCD.....	San Joaquin Valley Air Pollution Control District
SO ₂	Sulfur Dioxide
SR	State Route
SVWRA	South Valley Water Resources Authority
SWP	State Water Project
SWRCB.....	State Water Resources Control Board
TAC	Toxic Air Contaminants
TPY	Tons per Year
USEPA	United States Environmental Protection Agency

Chapter 1 Introduction

Provost & Pritchard Consulting Group (Provost & Pritchard) has prepared this Initial Study/Negative Declaration (IS/ND) on behalf of Patterson Irrigation District (PID) to address the environmental effects of the proposed Water Transfer to the South Valley Water Resources Authority (Project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et seq.* PID is the CEQA lead agency for this proposed Project.

The site and the proposed Project are described in detail in the **Chapter 2 Project Description**.

1.1 Regulatory Information

An IS is a document conducted by a lead agency to determine if a project may have a significant effect on the environment. In accordance with the California Code of Regulations Title 14 (Chapter 3, Section 15000, *et seq.*)-- also known as CEQA Guidelines-- Section 15064 (a)(1) states an environmental impact report (EIR) must be prepared if there is substantial evidence in light of the whole record that the proposed project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or project alternatives that might avoid or reduce project impacts to less than significant. A ND may be prepared instead; if the lead agency finds that there is no substantial evidence, in light of the whole record that the project may have a significant effect on the environment. A ND is a written statement describing the reasons why a proposed project, not otherwise exempt from CEQA, would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a ND shall be prepared for a project subject to CEQA when either:

1. The IS shows there is no substantial evidence, considering the whole record before the agency, that the proposed project may have a significant effect on the environment, or
2. The IS identified potentially significant effects, but:
 - a) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed ND and IS is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared; and
 - b) There is no substantial evidence, considering the whole record before the agency, that the proposed project *as revised* may have a significant effect on the environment. If revisions are adopted by the Lead Agency into the proposed project in accordance with the CEQA Guidelines Section 15070(b), a *Mitigated Negative Declaration (MND)* is prepared.

1.2 Document Format

This IS/ND contains four chapters. **Chapter 1 Introduction**, provides an overview of the Project and the CEQA environmental documentation process. **Chapter 2 Project Description**, provides a detailed description of the Project objectives and components. **Chapter 3 Impact Analysis**, presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible mitigation measures. If the Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected.

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Chapter 2 Project Description

2.1 Project Background and Objectives

2.1.1 Project Title

Water Transfer to the South Valley Water Resources Authority

2.1.2 Lead Agency Name and Address

Patterson Irrigation District
948 Orange Avenue
Patterson, California 95363

2.1.3 Contact Person and Phone Number

Lead Agency Contact

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2.1.4 Project Background

PID proposes a five (5) year Water Transfer between PID and the South Valley Water Resources Authority (SVWRA) to transfer up to 50,000 acre-feet (AF) (up to 10,000 AF/Y) of water to SVWRA (Project), of which up to 10,000 AF (up to 2,000 AF/Y) may be delivered to Pleasant Valley Water District (PVWD). The water to be transferred is comprised of a pre-1914 appropriative water right from the San Joaquin River held by PID but may also include Replacement Water¹. The water delivered to the agricultural lands within the participating districts within the SVWRA will be conveyed from PID to the State Water Project (SWP) facility serving the participating SVWRA districts and federal facilities through an existing Warren Act Contract with the Bureau of Reclamation (Reclamation) and a wheeling agreement with the California Department of Water Resources (DWR). The portion of the transfer water that may be delivered to PVWD and SVWRA would be conveyed through the Coalinga Canal (a federal facility) and require an update to Exhibit C of the existing Warren Act Contract. Project activities do not include any new infrastructure, conveyance facilities, construction, or alteration of lands. As the Project proponent and agency with primary responsibility to carry out the Project, PID is the designated Lead Agency pursuant to the CEQA.

PID holds pre-1914 rights to surface water from the San Joaquin River, pursuant to a public Notice of Appropriation posted on February 10, 1909 by the Patterson Ranch Company to appropriate approximately 400 cubic-feet-per-second (cfs) for irrigation purposes from the westerly bank of San Joaquin River in Stanislaus County, California. The rights held by the Patterson Ranch Company were subsequently assigned to PID. PID

¹ Replacement Water in this instance, is defined as replacing diminished San Joaquin River supplies due to the construction of the Friant Dam and the Friant-Kern and Madera Canals.

Chapter 2: Project Description

Water Transfer to the South Valley Water Resources Authority

has established a record of water use under "pre-1914 Appropriative Rights" by filing a Statement of Water Diversion and Use with the State Water Resources Control Board (SWRCB). The SWRCB identifies PID's pre-1914 right, citing it as S009320.

PID also obtains surface water from the Central Valley Project (CVP) pursuant to a contract with Reclamation entitled "Contract between the United States and Patterson Irrigation District Providing for Project Water Service" dated October 26, 2020, Contract No. 14-06-200-3598A-LTR1-P (PID Contract), pursuant to which PID obtains both project water from the CVP and Replacement Water, replacing its diminished San Joaquin River supplies due to the construction of Friant Dam and the Friant-Kern and Madera Canals. A current water service contract exists. An update to Exhibit C of the existing contract to address delivery from the Coalinga Canal turnouts (at milepost 14.55 and 14.57) and the California Aqueduct would be needed to be secured prior to any water being transfer to PVWD and SVRWA.

SVWRA is a California public entity formed and existing pursuant to the Joint Exercise of Powers Act (Gov't Code § 6500, et seq.) and comprised of thirteen (13) public agency general members located in Kings and Kern Counties, and nine (9) of those agencies have entered into an agreement to participate in a multi-year water transfer agreement with PID. The nine (9) public agencies participating in the PID transfer are named in **Table 2-1**, along with their SWP Table A amounts² in AF:

Table 2-1. Public Agencies Approved for Multi-Year Water Transfer

Member	SWP Table A Amount (AF)	Participation Percentage (%)
Belridge Water Storage District	121,508	15.189
Berrenda Mesa Water District	92,600	11.576
Cawelo Water District	38,200	4.775
Dudley Ridge Water District	41,350	5.169
Lost Hills Water District	119,110	14.890
Rosedale-Rio Bravo Water Storage District	29,900	3.738
Semitropic Water Storage District	155,000	19.376
Tejon-Castac Water District	5,278	0.660
Wheeler Ridge- Maricopa Water Storage District	197,088	24.627

The purpose of the SVWRA is to provide for the joint exercise of power common to each of the members to develop projects, facilities, and programs to enhance water supplies of its members. Other type of programs may include restoring historical water supplies, improving the reliability of supplies, maintain and/or improving the quality of supplies, and/or reducing the costs of the members water supplies. Due to aggressive conservation practices and the use of reclaimed water, PID has temporarily developed water supplies more than the demands within its service boundaries. As a result, PID has excess water that can be transferred, through water transfer programs with various water districts that may have water shortages. PID has entered into similar agreements in the past with other water districts. This Project, between PID, the participating members of SVWRA, and PVWD is merely a continuation of current PID practices that have been in place since 2010. Because of continued reduced water supply allocations from the SWP, SVWRA districts have suffered water shortages in past years and anticipates that this trend will continue. For more than the past decade, farmed lands within the SVWRA districts have regularly sought replacement supplies to offset the supply reductions from the SWP. Water transferred due to the Project would be transferred from PID to lands within the participating members of the SVWRA and PVWD to historically cultivated, farmed lands; no new lands would be brought into cultivation as a result of the Project.

The PID Board of Directors has found and determined that PID may be able to make a portion of its water supply available to SVWRA for the next five (5) years through conservation and PID projects and

² Table A amounts represent the annual amount of water contracted through long-term water supply contracts developed in the 1960s (and since amended) directly or indirectly with the California Department of Water Resources.

improvements. Other than in specified year types, each year up to 10,000 AF of PID's water is proposed to be made available for transfer and is expected to be surplus to the needs of PID's customers for that five-year period. PID is willing to modify the releases and diversions from its facilities and operations of its delivery systems to make up to 10,000 AF/Y of its water supplies available for transfer to SVWRA participants and to PVWD (either from PID or from SVWRA), after all necessary approvals have been obtained.

2.1.5 Project Location

PID is located near the City of Patterson, in Stanislaus County, California along San Joaquin River between the Merced and Tuolumne Rivers. PID's service area extends about 8 miles long (east-west) and three miles wide (north-south). PID encompasses approximately 12,660 acres, most of which is irrigated. PID includes approximately 643 landowners and over 400 water users. **Figure 2-1** shows the current boundary for PID's service area. Irrigated lands served by PID include a variety of orchards and row crops. PID receives water from the San Joaquin River and the Delta Mendota Canal (DMC).

SVWRA is a joint powers authority that provides a mechanism for specific activities to be undertaken by its thirteen (13) public agency members and can include, but not limited to, water supply, flood protection, and watershed management in Kings and Kern Counties covering about 1,300 square miles. Collectively, the SVWRA districts are geographically situated in the lower San Joaquin Valley (Valley), part of the Great Central Valley of California (See **Figure 2-1** and **Figure 2-2**). The Great Central Valley is bordered by the Sierra Nevada Mountain Ranges to the east, the Coast Ranges to the west, the Klamath Mountains and Cascade Range to the north, and the Tehachapi Range to the south.

Participating members of the SVWRA that are located within Kern County receive annual allocations of water from the SWP pursuant to their water service contracts with the Kern County Water Agency (KCWA); KCWA contracts directly with DWR for the SWP supply. Dudley Ridge Water District (DRWD), the participating SVWRA member located in Kings County, contracts directly with DWR for SWP water. (See **Figure 2-1**). In addition, each of the members of the SVWRA manage local groundwater and surface water resources and/or participate in local/regional groundwater storage programs.

PVWD is a California Water District located in western Fresno County, southeast of the City of Coalinga that includes approximately 38,000 total acres of which 30,000 acres are rated as farmable. PVWD has started importing surface supplies of water to help offset over drafting of its groundwater supply. SVWRA is agreeable to deliver up to 2,000 AF/Y of the PID water to agricultural lands within PVWD. The water would be delivered from the terminus of the San Luis Canal to PVWD through the Coalinga Canal under a pending update to Exhibit C of the existing Warren Act Contract for PVWD and SVWRA.

2.1.6 Latitude and Longitude

The centroid of each SVWRA member district participating in the Project and PVWD is identified in **Table 2-2** below.

Table 2-2. Latitude and Longitude in Decimal Degrees of Each Participating District

Member	Latitude	Longitude
Belridge Water Storage District	35.519172° N	-119.720072° W
Berrenda Mesa Water District	35.662932° N	-119.945316° W
Cawelo Water District	35.568376° N	-119.150173° W
Dudley Ridge Water District	35.881798° N	-119.868578° W
Lost Hills Water District	35.724168° N	-119.766801° W
Pleasant Valley Water District	36.113599° N	-120.243027° W
Rosedale-Rio Bravo Water Storage District	35.382899° N	-119.252035° W

Member	Latitude	Longitude
Semitropic Water Storage District	35.606200° N	-119.495446° W
Tejon-Castac Water District	34.856690° N	-118.807712° W
Wheeler Ridge- Maricopa Water Storage District	35.038432° N	-119.016011° W

2.1.7 Description of Project

The Project consists of a five (5) year water transfer agreement (beginning 2021) between PID and the SVWRA to transfer up to 10,000 AF/Y of surface water conveyed to SVWRA participants; up to 2,000 AF/Y of the SVWRA deliveries may be delivered to PVWD. The water to be transferred would be comprised of PID's pre-1914 appropriative water right from the San Joaquin River or Replacement Water, then conveyed through existing federal facilities (via an existing Warren Act Contract) to existing SWP facilities for delivery, again through existing conveyances to the SVWRA participants. A current water service contract exists. An update to Exhibit C of the existing contract to address delivery from the Coalinga Canal turnouts (at milepost 14.55 and 14.57) and the California Aqueduct would be needed to be secured prior to any water being transfer to PVWD and SVRWA. PID has entered into similar agreements in the past and this Project is a continuation of existing water transfer activities that have been ongoing between PID and various water purveyors since 2010. Due to aggressive conservation practices and the use of reclaimed water, PID has temporarily developed water supplies in excess of the current water demands within its service boundaries. As a result, PID has excess water that can be transferred, through Water Transfer Agreements to various water districts in the San Joaquin Valley that may have water shortages. Also, due to reduced water supply allocation from the SWP, members of the SVWRA have suffered water shortages in past years and anticipates that this trend will continue. For more than the past decade, farmed lands within SVWRA and PVWD have regularly sought replacement supplies to offset the supply reductions from the SWP. Water transferred due to the Project would be transferred from PID to lands within the SVWRA and PVWD to historically cultivated, farmed lands; no new lands would be brought into cultivation as a result of the Project.

Project activities do not include any new infrastructure, conveyance facilities, construction, or alteration of lands. Water transfers would be provided to SVWRA members via existing turnouts along the California Aqueduct from Reach 8D, 9, 10A, 11B, 12D, 12E, 13B, 14A, 14B, 14C, 15A, 16A, and 17E, and through the turnout from Reach 31A of the Coastal Branch of the California Aqueduct. Water would be provided to PVWD through the Coalinga Canal. (See [Figure 2-1](#)).

2.1.8 Water Supply and Use

2.1.8.1 Patterson Irrigation District

PID's pre-1914 rights are diverted from the San Joaquin River, in Stanislaus County at approximately river mile 98.5. PID's existing surface water pumping plant is located on the western bank of the San Joaquin River, approximately 3.5 miles east of the City of Patterson and just over a quarter mile north of West Main Street. The existing diversion facility consists of seven pumps with a total diversion capacity of approximately 195 cfs. The current river diversion delivery system consisting of a state-of-the-art fish screen off of the San Joaquin River supporting pumps and motors connected to steel discharge pipes discharging into an open channel canal. PID has five (5) pumping plants on its Main Canal, each of which is automated utilizing canal algorithms for downstream level control utilizing Allen-Bradley IntelliCENTER motor control centers, variable frequency drives, programmable logic controllers and a Supervisory Control and Data Acquisition (SCADA) system. This system allows for optimum water and energy use efficiency by reducing unneeded pumping and exact flow requirements at the heads of all laterals and turnouts off the Main Canal.

In addition to its pre-1914 surface water supply, PID receives surface water through a repayment contract with Reclamation for service from the DMC. PID's CVP contract provides for two types of water service:

- **Project Water.** PID's contract provides that Reclamation would provide PID with up to 16,500 AF of project water annually, subject to the terms and conditions of the contract.
- **Replacement Water.** PID's contract provides that Reclamation would provide PID with 6,000 AF of replacement water annually in addition to the project water discussed above because CVP water allocations have reduced San Joaquin River flows. The replacement water is to be provided to PID without charge and is the first water delivered to PID under the contract annually.

Project water and Replacement Water under PID's contract are diverted from the DMC at PID's existing turnout at river mile 42.51 L.

PID also appropriates groundwater from groundwater wells located throughout the District. From 2010 through 2019, PID-owned wells pumped an average of 4,620 AF/Y, with a high of 9,607 AF occurring in 2015 and a low of 916 AF occurring in 2017. PID currently has seven (7) district owned wells, with a combined flow rate of 33.5 cfs. Groundwater pumping within PID during the Project period would remain within historical levels, and no groundwater is anticipated to be transferred or substituted for surface water to be transferred.

In the last fifteen years, the primary crops grown within PID have included almonds, walnuts, tomatoes, and alfalfa. The District is surrounded by dense dairy production areas. The District's proximity to these dairy production areas provides for a large percentage of the District being farmed for forage crops such as alfalfa and silage corn. There is also a trend toward continued conversion from row crops to permanent crops such as almonds and walnuts. PID maintains records regarding irrigation methods, indicating that the main irrigation methods used between 1986 and 1996 were primarily furrow/border followed by sprinklers and trickle irrigation. The more recent trending shows a conversion to drip-micro spray of new permanent plantings and some row crops such as tomatoes. Investments in more efficient irrigation and tail water recovery systems have resulted in conserved water available for transfer and/or reductions in groundwater use. In recent years, PID has sought to transfer conserved water to meet regional water needs.

Water Conservation and Reclamation Efforts

Since 1997, PID has aggressively pursued automation and modernization of its pumping, distribution, and delivery systems. These automation and modernization efforts would continue in the future and they focus on resource management and efficiency, including water and power. Modernization efforts have included replacing less efficient pumps and motors with more efficient units and constructing and installing accurate and reliable flow measurement structures and systems, installing, and implementing state-of-the-art pumping plant control systems and a power monitoring SCADA system at its five pumping plants on the Main Canal. PID also participated in the California Energy Commission's (CEC) pump testing and pump retrofit/repair program through a funding program provided by Reclamation. PID worked with the Irrigation Training and Research Center at California Polytechnic State University in San Luis Obispo to develop a canal automation system including flow meters and volumetric options for measuring flow rate. As they were implemented, these efforts increased the efficiency of PID's pumping and delivery system.

PID has also constructed and operates two reservoir projects which allow for reclaimed water usage. Tail water and farm drainage water return flows in the district historically either percolated into the groundwater aquifer or were returned to the San Joaquin River via drainage facilities. These two innovative reservoir recovery systems recover the irrigation tailwater before it returns to the San Joaquin River. The projects involved building two small reservoirs to store the tail water, automating key components, and installing key SCADA components for effective operation and monitoring. PID also uses advanced hydraulic automation techniques and computerized SCADA systems to better monitor and control its water and energy use.

Chapter 2: Project Description

Water Transfer to the South Valley Water Resources Authority

PID has also implemented a recycled water return project recapturing drain and spill water from in-District and adjacent farming areas to the south and west. This project takes the water and introduces it into the south reservoir, from there a pump station pumps the water evenly across the southern distribution system of PID.

Pleasant Valley Water District

PVWD was formed in 1963 to provide agricultural water to landowners through contracting with the Reclamation for long-term water supply. Water is delivered from the California Aqueduct (San Luis Canal) to the Coalinga Canal (also known as the Pleasant Valley Canal), and then to PVWD.

South Valley Water Resources Authority

The SVWRA is a joint powers authority formed in 2016 to assist in implementing water programs located in the southern San Joaquin Valley such as water banking and other water supply programs. SVWRA has partnerships with its thirteen (13) public water agency members for mutually beneficial projects and to aid in improving water deliveries from the SWP and other sources.

Water Transfers

The Project consists of a five (5) year Water Transfer Agreement between PID and the SVWRA to transfer up to 10,000 AF/Y of PID's pre-1914 water rights water to the nine (9) SVWRA participating members and PVWD via their contracts either with KCWA, Reclamation and/or DWR. Out of the 13 public water agencies affiliated with SVWRA, nine (9) agencies are currently included in the PID water transfer. Descriptions of the nine (9) public agencies and PVWD participating in the Project are summarized below:

1. Belridge Water Storage District (Belridge) was formed by landowners in 1962 and is located in the Western Kern County. Belridge encompasses approximately 92,731 acres of land with approximately 46,130 acres developed irrigated agriculture and has a contract with KCWA for 121,508 AF of SWP water.
2. Berrenda Mesa Water District (Berrenda) was formed by landowners in 1963 for the purpose of providing irrigation water from the SWP and is located in the southern San Joaquin Valley about 50 miles northwest of the City of Bakersfield in the northwestern corner of Kern County. Berrenda owns and operates 92,600 acres of agricultural lands and has a contract with KCWA for 92,600 AF of SWP water.
3. Cawelo Water District (Cawelo) is located east of the City of Shafter and has 33,044 acres of land that receives surface water, approximately 75,000 acre-feet on average per year. Cawelo has a contract with KCWA for 38,200 AF of SWP water.
4. Dudley Ridge Water District (Dudley or DRWD) was formed by landowners in 1962 and is located in Kings County on the western edge of the San Joaquin Valley. Land use within the Dudley is agricultural and is approximately 41,350 acres of land and has a contract with DWR for 41,350 AF of SWP water.
5. Lost Hills Water District (Lost Hills) was formed in 1963 and is generally located south of the town of Lost Hills and extending north and west to the Kings-Kern County line. Lost Hills encompasses approximately 74,357 acres with about 32,000 acres using irrigation water and has a contract with KCWA for 119,110 AF of SWP water.

6. PVWD was formed in 1963 to provide groundwater for agricultural use to landowners. PVWD encompasses an area of approximately 38,000 acres within Fresno County. PVWD is located along the west side of the San Joaquin Valley, north of the Fresno-Kings County line and is east and southeast of the City of Coalinga.
7. Rosedale-Rio Bravo Water Storage District (Rosedale) was formed in 1959 by landowners for the purpose of construction and operation of a groundwater recharge project. Rosedale encompasses approximately 44,000 acres of lands of which approximately 27,500 acres are irrigated. Nearly all of Rosedale's water supplies are used to recharge the groundwater aquifer. Rosedale has a contract with KCWA for 29,900 AF of SWP water.
8. Semitropic Water Storage District (Semitropic) was established in 1958 to secure SWP supplies to reduce groundwater overdraft and provides groundwater banking and storage services. Semitropic covers an area of about 220,000 acres with approximately 135,000 to 145,000 acres irrigated for agricultural purposes. Semitropic owns and operates a groundwater storage bank with a capacity of 1.65 million acre-feet and has a contract with KCWA for 155,000 AF of SWP water.
9. Tejon-Castac Water District (Tejon) was formed in 1965 and is located in the southern portion of Kern County. Tejon maintains a viable groundwater resource that support the current and future beneficial uses of the local groundwater. Tejon manages 19,280 acres and has a contract with KCWA for 5,278 AF of SWP water.
10. Wheeler Ridge-Maricopa Water Storage District (Wheeler) was formed in 1959 and is located in Kern County at the southern end of the San Joaquin Valley south of Bakersfield. Wheeler encompasses about 147,000 acres and provides water for the benefit of about 90,000 acres of irrigated farmland within its boundaries. Wheeler has a contract with KCWA for 197,088 AF of SWP water.

Water would be provided to SVWRA members via existing turnouts along the California Aqueduct through Reaches 8D, 9, 10A, 11B, 12D, 12E, 13B, 14A, 14B, 14C, 15A, 16A, and 17E, and on the Coastal Branch, Reach 31A. Additional reaches and turnouts may be utilized as needed to meet the intent of the Agreement between participating members of the SVWRA and PID. Water would be provided to PVWD via the Coalinga Canal.

2.1.9 Description of Water Transfer

Volume of Water to be Assigned

PID proposes to transfer up to 10,000 AF/Y of water to SVWRA and PVWD. Each year, the transfer of available water would be determined by the PID Board of Directors depending on San Joaquin River hydrology. Except for critical water years when the February first California Cooperative Snow Survey's Water Supply Index Forecast for the San Joaquin Valley 60-20-20 Water Year Type Index is 2.1 or less and that hydrology does not improve, each year PID would make a minimum of 5,000 AF of water available for transfer to the SVWRA participants; the SVWRA may allow delivery of up to 2,000 AF/Y of the 5,000 AF/Y to be conveyed to agricultural lands in PVWD. Any additional quantity offered for transfer to the SVWRA in any given year beyond the minimum amount would be determined by the PID Board of Directors.

Existing Water Use

Currently PID's water rights are used within, and immediately adjacent to, PID for agricultural purposes. Historically, PID has used all of its surface and groundwater sources within its boundaries for irrigation demands. As PID has constructed more facilities to recapture drain water and implemented aggressive conservation, it has consistently sought to transfer the surface water that has been made available by the projects and practices.

Over time PID has undertaken concerted efforts to conserve water. PID provides agricultural water to approximately 400 customers on about 12,600 acres, all of which is irrigated, and located in Stanislaus County and is adjacent to Del Puerto Water District to the southwest. For comparison, in 2009, PID diverted 48,500 AF of water from the San Joaquin River, compared to 38,482 AF in 2019. PID receives water from the DMC to supplement their San Joaquin River pre-1914 supply. The DMC water supplies include 16,500 AF of water from the CVP pursuant to a permanent repayment contract (Contract 14-06-200-3598A-LTR1) with Reclamation, and a 6,000 AF delivery per year from a water rights settlement contract because operation of the CVP Friant Division has reduced San Joaquin River flows. In addition to its CVP and San Joaquin River supplies, PID also pumps groundwater, as necessary.

PID's distribution system consists of 3.8 miles of unlined canal, 51.8 miles of concrete-lined canals, and 84 miles of pipelines. The main canal flows from east to west and the main laterals that come off the Main Canal and flow to the north and south. PID has a series of five (5) lift pump stations on its Main Canal, three (3) sediment control reservoirs that are located on the main canal, two (2) additional tail water recovery reservoirs located off the main laterals, and tail water recapture and recirculation facilities on the south side.

Since 1997, PID has aggressively pursued automation and modernization of its system in coordination with Reclamation and the Irrigation Training and Research Center at California Polytechnic State University in San Luis Obispo. Conservation and modernization efforts included replacing low efficiency pumps and motors, constructing flumes for accurate flow measurement, constructing long-crested weirs for water level control, implementing state-of-the-art pumping plant control systems and installing a power monitoring SCADA system at its five pumping plants on the Main Canal. PID also participated in the CEC pump testing and pump retrofit/repair program. All of these efforts have increased the efficiency of PID's water pumping and delivery system, conserved water and reduced the return flow of waters high in salts to the San Joaquin River.

Tail water or drainage water return flows in PID historically either percolated into the groundwater aquifer or were returned to the San Joaquin River via direct drain facilities. Recently, PID constructed two innovative reservoir recovery systems that recover irrigation tail water before it can flow into the San Joaquin River. The projects involved building two small reservoirs to store the tail water, automating key components, and installing key SCADA components for effective operation and monitoring. PID also uses advanced hydraulic automation techniques and computerized SCADA systems to better monitor and control its water and energy use.

How Water is to be Made Available.

Water transferred from PID would be made available to KCWA and DRWD on behalf of the SVWRA participants at milepost 143.23 of the California Aqueduct (near where Highway 145 crosses the California Aqueduct) for conveyance downstream to the SVWRA participating members at their respective delivery turnouts in the California Aqueduct approved by DWR. The pre-1914 water would be pumped from the San Joaquin River at PID's existing diversion on the San Joaquin River and be conveyed through PID's Main Canal and into the DMC, as is currently the case. Replacement water would remain in federal facilities or federal/State Joint Use facilities and delivered to lands that are within the CVP place of use. Water transferred to PVWD would begin from milepost 14.54 of the San Luis Canal/California Aqueduct for diversion to the Coalinga

Canal located northeast of the City of Coalinga, California, then to PVWD. No new construction is required to transfer the water from PID to the SVWRA participants or to PVWD.

The pre-1914 water to be transferred would be diverted from PID's existing pumping facility on the San Joaquin River (at milepost 98.5), subject to any regulatory requirements protecting biological resources and/or conditions in PID's permits governing such diversions. The pumped water would be conveyed through PID's existing distribution system, and then transferred into an existing pipeline originating at the west end of PID's Main Canal, or in PID's Lateral 5-South, and terminating at the DMC, at Ward Avenue.

To transfer PID's pre-1914 water into the DMC to convey it to the SVWRA participants, PID has or will secure a Warren Act Contract or contracts with Reclamation to pump and or store the water into the federal facilities at DMC milepost 42.53L, and convey it to the SVWRA participants, who receives water from the DMC at milepost 93.25R. Water would flow through the DMC to the O'Neill Forebay where it can be transferred or exchanged into the SWP system and conveyed to the SVWRA participants. PID would also utilize the Warren Act contract for storage and delivery of pre-1914 supplies it delivers into the DMC, in order to maximize water resource flexibility between the two agencies. For conveying the transfer water to PVWD, PID requested and received a Warren Act Contract from the Reclamation dated July 28, 2020 (Contract No. 20-WC-20-5658) pursuant to subdivision (g) of Article 3 of the Contract entitled *"Temporary Contract Between the United States and Patterson Irrigation District Providing for Multi-Year Storage and/or Conveyance of Non-Project Water"* covering the period from September 1, 2020 through February 28, 2025. The points of delivery for the non-CVP water would be between MPs 25.63R and 59.50R of the DMC within the PID service area. PID may transfer some of this water to other CVP contractors but it would require additional review and amendment of the Warren Act contract. Water transferred to PVWD would be from the joint federal CVP and State SWP project canal system to and through the Coalinga Canal. An update to the existing Warren Act contract between the Reclamation and PID to address PVWD water transfer and a wheeling agreement for pre-1914 water and Replacement Water in State facilities from DWR to get this water to SVWRA participants and KCWA. As PVWD would receive the water through the San Luis Canal an agreement with DWR is not needed for that delivery. The Reclamation actions in their Environmental Assessment document would also include transfer approvals of the replacement water. This process is discussed further in Section 2.1.11 below.

2.1.10 Site and Surrounding Land Uses and Setting

Specific site and surrounding land use and settings are varied. The turnouts used to deliver water are within three counties: Fresno, Kings, and Kern. The Project would utilize existing water conveyance facilities and is not proposing the construction of any new facilities. The Project would be in conformance with all land use policies.

2.1.11 Other Public Agencies Whose Approval May Be Required

PID and Reclamation currently have an existing Warren Act Contract for PID for the conveyance, storage, and delivery of non-project water through federal conveyance and storage facilities that would be used to transfer water to the SVWRA participants and PVWD through an update to Exhibit C of the current Warren Act Contract. This process would be started in conjunction with this CEQA document and would also require Reclamation to complete National Environmental Policy Act (NEPA) compliance. The Warren Act contract with an updated Exhibit C would need to be in place prior to any of PID's transfer water being delivered to SVWRA or PVWD.

A list of agreements and approvals anticipated to implement the proposed project is provided below.

- Agreement between Patterson Irrigation District and South Valley Water Resources Authority for a Multi-year Water Transfer (dated March 1, 2020).

- First Amendment to Agreement between Patterson Irrigation District and South Valley Water Resources Authority for a Multi-year Water Transfer (dated December 16, 2020).
- Agreement between the South Valley Water Resources Authority and its Members Participating in the Patterson Irrigation District Multi-Year Water Transfer Agreement (dated March 1, 2020).
- Patterson Irrigation District Temporary Warren Act Contract No 20-WC-20-5658 for Storage and Conveyance of Non-Project Water 2020-2025 (dated July 28, 2020); Points of Delivery in Exhibit C to be updated after NEPA is completed by Reclamation.
- Power Letter of Agreement No. 20-WC-20-5659 between the US Bureau of Reclamation and Patterson Irrigation District (dated July 28, 2020).
- Approval of the DWR to provide agreements to convey the PID water to KCWA and Dudley Ridge turnouts on the California Aqueduct and to the turnout to the Coalinga Canal for delivery to PVWD.
- Approval of KCWA to facilitate the water transfer on behalf of the SVWRA participating districts within the KCWA by entering into a conveyance agreement with DWR and indemnification agreements with their participating districts.
- Approval of Dudley Ridge to enter into a conveyance agreement with DWR.
- PID has jurisdiction over the CEQA review and approval of this Project as the lead agency and would be requested to take action to adopt the ND with appropriate findings.

Other agencies may have authority to issue permits prior to Project implementation:

- Department of Water Resources -Article 55 Wheeling Agreement.

2.1.12 Consultation with California Native American Tribes

Public Resources Code Section 21080.3.1, *et seq.* (codification of AB 52, 2013–14) requires that a lead agency, within 14 days of determining that it would undertake a project, must notify in writing any California Native American Tribe traditionally and culturally affiliated with the geographic area of the project if that Tribe has previously requested notification about projects in that geographic area. The notice must briefly describe the project and inquire whether the Tribe wishes to initiate formal consultation. Tribes have 60 days from receipt of notification to request formal consultation. The lead agency then has 30 days to initiate the consultation, which then continues until the parties come to an agreement regarding necessary mitigation or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith, but no agreement would be made.

PID, SVWRA, and PVWD have not received any written correspondence from any Tribe pursuant to Public Resources Code Section 21080.3.1 requesting notification of project.

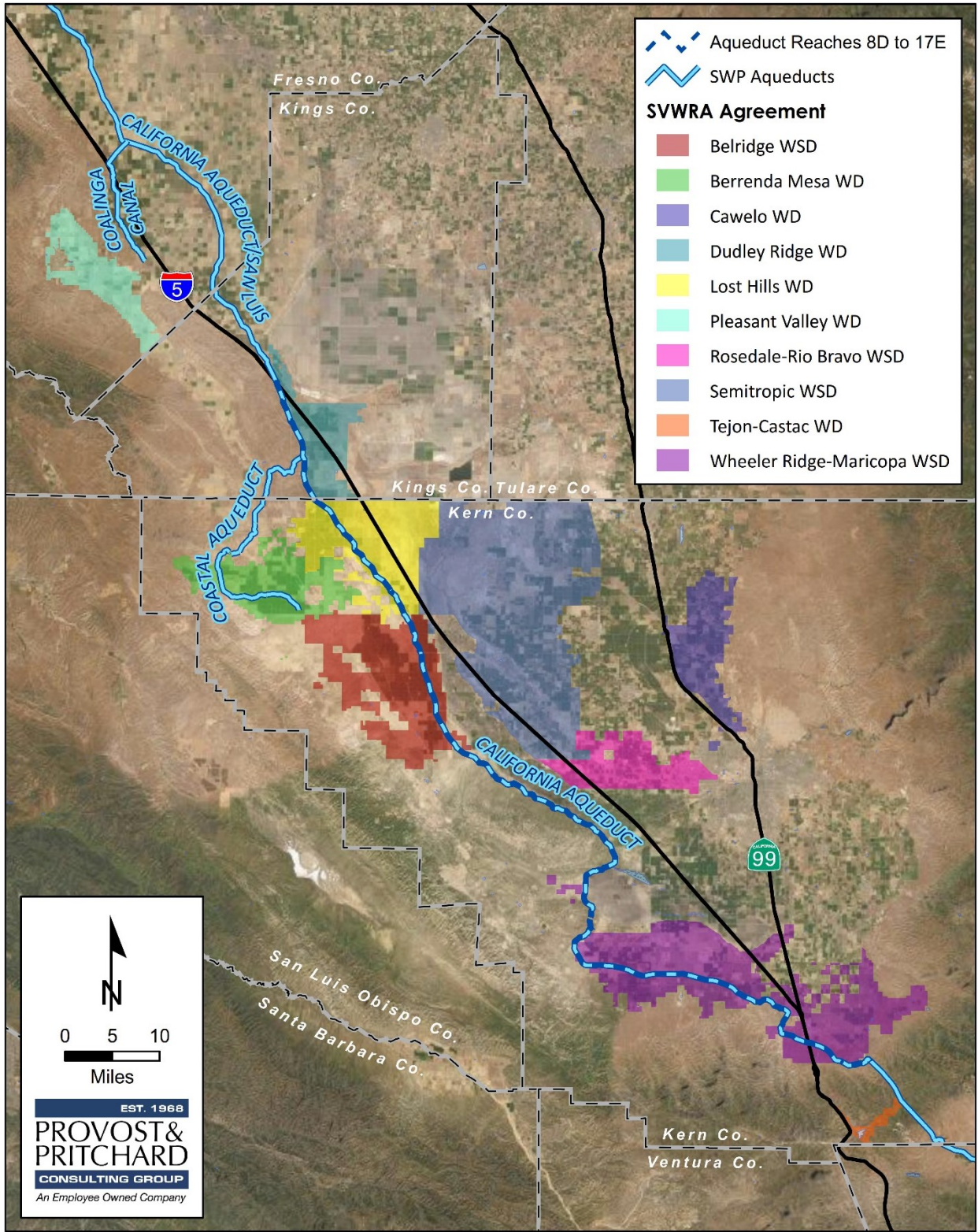


Figure 2-1. Regional Location Map

Chapter 2: Project Description

Water Transfer to the South Valley Water Resources Authority

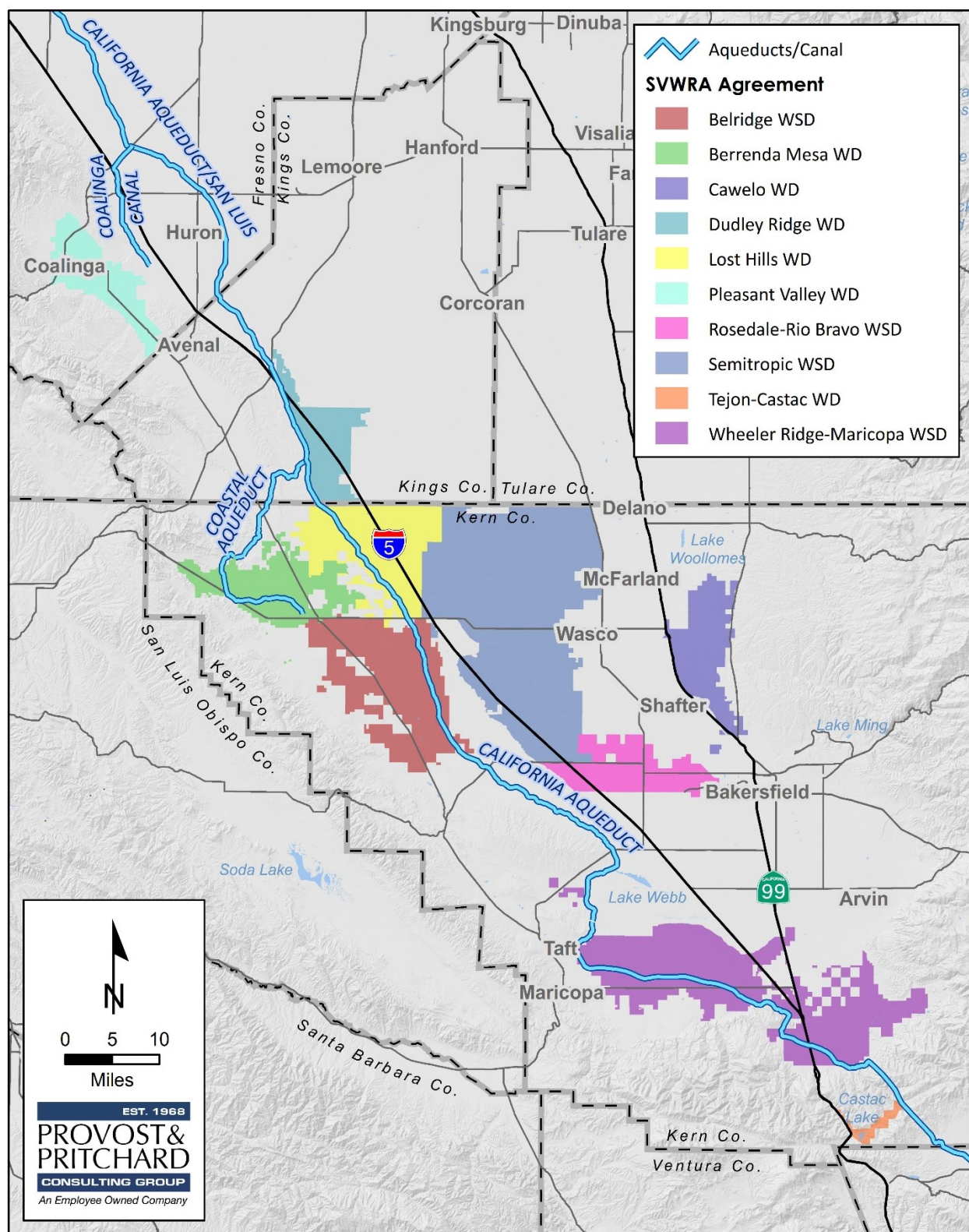


Figure 2-2. Topographic Map

Chapter 3 Impact Analysis

3.1 Environmental Factors Potentially Affected

The following checklist is the form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the Project. A discussion follows each environmental issue identified in the checklist. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant.

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and subsequent discussion on the following pages.

- | | | |
|--|---|---|
| ☐ Aesthetics | ☐ Agriculture Resources | ☐ Air Quality |
| ☐ Biological Resources | ☐ Cultural Resources | ☐ Energy |
| ☐ Geology/Soils | ☐ Greenhouse Gas Emissions | ☐ Hazards & Hazardous Materials |
| ☐ Hydrology/Water Quality | ☐ Land Use/Planning | ☐ Mineral Resources |
| ☐ Noise | ☐ Population/Housing | ☐ Public Services |
| ☐ Recreation | ☐ Transportation/Traffic | ☐ Tribal Cultural Resources |
| ☐ Utilities/Service Systems | ☐ Wildfire | ☐ Mandatory Findings of significance |

For this checklist, the following designations are used:

Potentially Significant Impact. This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

Less than Significant After Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a “Potentially Significant Impact” to a “Less than Significant Impact.” The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less than Significant Impact. This category is identified when the project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact. This category applies when a project would not create an impact in the specific environmental issue area. “No Impact” answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (e.g. the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis.)

3.2 Aesthetics

Table 3-1. Aesthetics

Aesthetics				
Except as provided in Public Resources Code Section 21099, 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) In non-urbanized areas substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

3.2.1 Environmental Setting

The Project is located in the Valley. Lands within the SVWRA participants are located within Kings and Kern County consisting of relatively flat, irrigated farmland. PVWD lies along the west side of the San Joaquin Valley, north of the Fresno-Kings County line. Agricultural practices that would utilize the water for agricultural irrigation consist primarily of permanent crops (orchards and vineyards), idle land, and some row crops, field crops, and limited areas of rural residential and rural industrial development. Additionally, these Districts contain rural roadways, canals, water retention basins and other infrastructure typical of rural agricultural areas in the southern San Joaquin Valley. The Project involves the transfer of water from PID to SVWRA participating districts and potentially to PVWD through existing facilities with no additional modifications. Construction or land alterations activities are not involved with this Project.

3.2.2 Regulatory Setting

3.2.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with aesthetics that are applicable to the Project.

3.2.2.2 State

There are no State regulations, plans, programs, or guidelines associated with aesthetics that are applicable to the Project.

3.2.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with aesthetics that are applicable to the Project.

3.2.3 Impact Assessment

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact. There are no scenic resources, scenic vistas, or designated State Scenic Highways located on the site or in the vicinity. There would be no temporary or permanent physical changes associated with the Project; therefore, there would be no impacts to a scenic vista.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. Considering the lack of construction associated with implementation, the Project would not result in any temporary or permanent physical changes. There would be no impact.

c) Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact. As discussed in Impact a, the Project would not involve any temporary or permanent physical changes to the existing viewsheds in the region and no new light sources would be created. There would be no impact.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. As analyzed in Impact a, the Project would not involve any temporary or permanent physical changes to the existing viewsheds in the region and no new light sources would be created. There would be no impact.

3.3 Agriculture and Forestry Resources

Table 3-2. Agriculture and Forest Resources

Agriculture and Forest Resources				
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?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.3.1 Environmental Setting

A wide range of commodities are grown in Fresno, Kings and Kern County, with major production of grapes, almonds, pistachios, citrus, cotton, cattle, tomatoes, and milk. Rich soil, irrigation water, Mediterranean climate, and steady access to local, national, and global markets make this possible. The Project involves the transfer of water from PID to SVWRA participating districts and PVWD through existing facilities. The transfer would provide surplus conserved water only and would not reduce the supplies available to PID's existing agricultural users. Similarly, no land conversion would take place in the participating districts as the water transferred is intended to replace depleted supplies, not increase existing agricultural development. Water would not be provided to lands that have not been historically cultivated. Construction or land alteration activities are not involved with this Project.

3.3.2 Regulatory Setting

3.3.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with agriculture and forestry resources that are applicable to the Project.

3.3.2.2 State

There are no State regulations, plans, programs, or guidelines associated with agriculture and forestry resources that are applicable to the Project.

3.3.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with agriculture and forestry resources that are applicable to the Project.

3.3.3 Impact Assessment

a) Would the project 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? And;

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project does not involve any change of land use or any physical changes to the land itself. There would be no potential for farmland conversion or any potential conflict with an existing Williamson Act contract as there would be no change to the existing land uses. There would be no impacts.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The movement of water would not result in the loss of forest land, as the Project would not change the existing land uses. Additionally, there are no forest resources in the Project vicinity. There is no impact.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

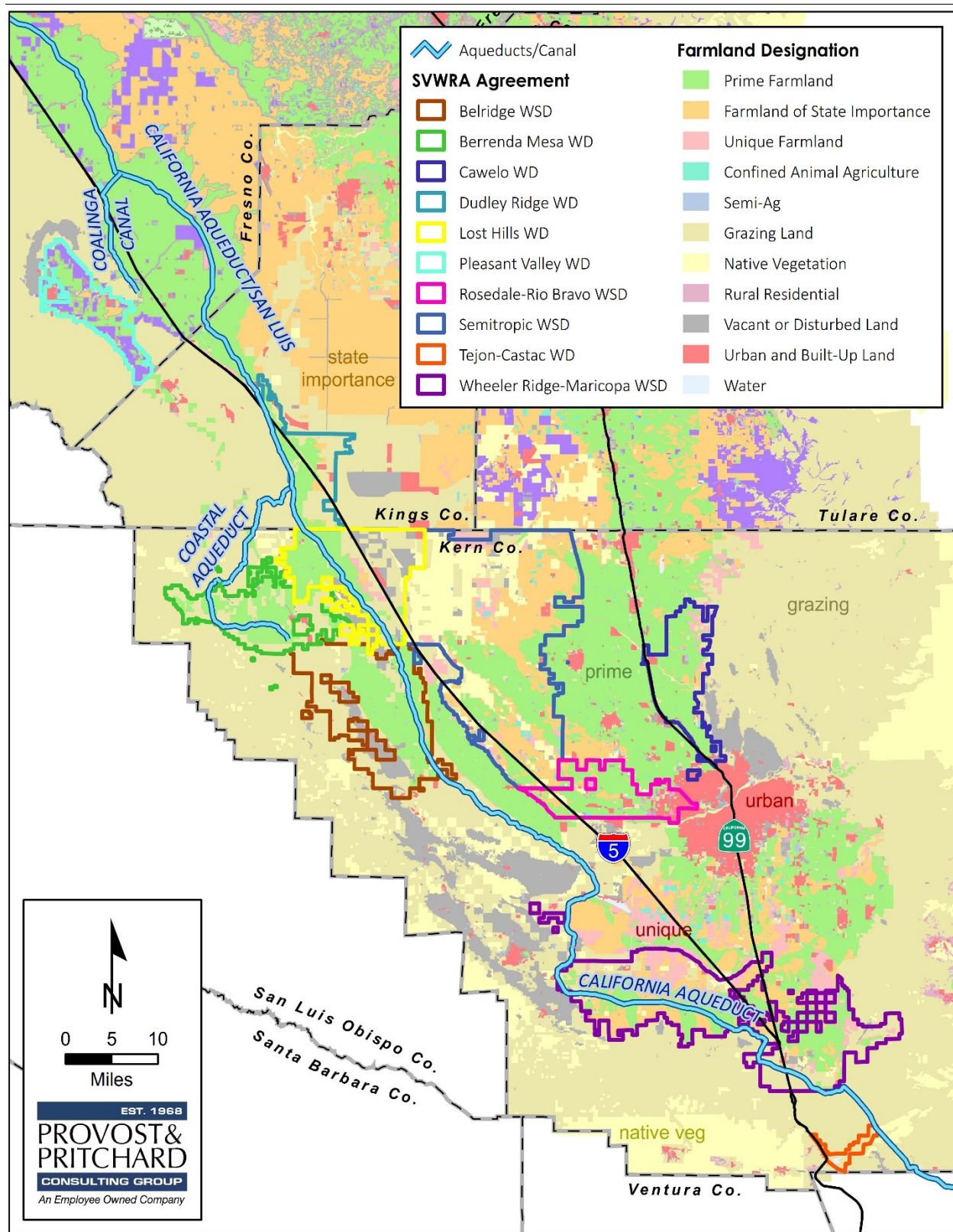
No Impact. See analysis in impact “3.3.3.c.” There would be no impact.

e) Would the project 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?

No Impact. The Project does not involve any new construction. The transfer would involve surplus conserved water only and would not reduce the supplies available to PID’s existing agricultural users. Similarly, no land conversion would take place in SVWRA participating districts or PVWD as the water transferred is intended to replace depleted supplies, not increase existing agricultural development. Water would not be provided to lands that have not been historically cultivated. There would be no impact.

Chapter 3: Impact Analysis – Agriculture and Forestry Resources

Groundwater Replenishment Program: Surplus Surface Water Delivery Project



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Figure 3-1. Farmland Map

3.4 Air Quality

Table 3-3. Air Quality

Air Quality				
Where available, the significance criteria established by the applicable air quality management district 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) 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?	☐	☐	☐	☒
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

3.4.1 Environmental Setting

The Project is located within the San Joaquin Valley Air Basin (SJVAB). The SJVAB is within the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). Air quality in the SJVAB is influenced by a variety of factors, including topography, local, and regional meteorology.

3.4.1.1 Thresholds of Significance

To assist local jurisdictions in the evaluation of air quality impacts, the SJVAPCD has published the *Guide for Assessing and Mitigating Air Quality Impacts*³. This guidance document includes recommended thresholds of significance to be used for the evaluation of short-term construction, long-term operational, odor, toxic air contaminant, and cumulative air quality impacts. Accordingly, the SJVAPCD-recommended thresholds of significance are used to determine whether implementation of a project would result in a significant air quality impact. Projects that exceed these recommended thresholds would be considered to have a potentially significant impact to human health and welfare. The thresholds of significance are summarized, as follows:

Short-Term Emissions of Particulate Matter (PM₁₀): Construction impacts associated with the Project would be considered significant if the feasible control measures for construction in compliance with Regulation VIII as listed in the SJVAPCD guidelines are not incorporated or implemented, or if project-generated emissions would exceed 15 tons per year (tpy).

Short-Term Emissions of Ozone Precursors (ROG and NO_x): Construction impacts associated with a proposed project would be considered significant if the project generates emissions of ROG or NO_x that exceeds 10 tpy.

³San Joaquin Valley Air Pollution Control District Guidance for Assessing and Mitigating Air Quality Impacts February 19, 2015. <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>. Accessed July 24, 2020

Long-Term Emissions of Particulate Matter (PM₁₀): Operational impacts associated with a proposed project would be considered significant if the project generates emissions of PM₁₀ that exceed 15 tpy.

Long-Term Emissions of Ozone Precursors (ROG and NO_x): Operational impacts associated with a proposed project would be considered significant if the project generates emissions of ROG or NO_x that exceeds 10 tpy.

Conflict with or Obstruct Implementation of Applicable Air Quality Plan: Due to the region's non-attainment status for ozone, PM_{2.5}, and PM₁₀, if the project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NO_x) or PM₁₀ would exceed the SJVAPCD's significance thresholds, then the project would be considered to conflict with the attainment plans. In addition, if the project would result in a change in land use and corresponding increases in vehicle miles traveled, the project may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

Local Mobile-Source CO Concentrations: Local mobile source impacts associated with a proposed project would be considered significant if the project contributes to CO concentrations at receptor locations in excess of the CAAQS (i.e., 9.0 ppm for 8 hours or 20 ppm for 1 hour). Exposure to toxic air contaminants (TAC) would be considered significant if the probability of contracting cancer for the Maximally Exposed Individual (i.e., maximum individual risk) would exceed 10 in 1 million or would result in a Hazard Index greater than 1. Odor impacts associated with a proposed project would be considered significant if the project has the potential to frequently expose members of the public to objectionable odors.

3.4.2 Regulatory Setting

3.4.2.1 Federal

United States Environmental Protection Agency: At the federal level, the United States Environmental Protection Agency (USEPA) has been charged with implementing national air quality programs. The USEPA's air quality mandates are drawn primarily from the Federal Clean Air Act (FCAA), which was signed into law in 1970. Congress substantially amended the FCAA in 1977 and again in 1990.

Federal Clean Air Act: The FCAA required the USEPA to establish National Ambient Air Quality Standards (NAAQS), and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions.

The FCAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The FCAA Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The USEPA has responsibility to review all state SIPs to determine conformance with the mandates of the FCAA, and the amendments thereof, and determine if implementation would achieve air quality goals. If the USEPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area that imposes additional control measures.

National Emission Standards for Hazardous Air Pollutants: Pursuant to the FCAA of 1970, the USEPA established the National Emission Standards for Hazardous Air Pollutants (NESHAP). These are technology-based source-specific regulations that limit allowable emissions of hazardous air pollutants (HAPs).

3.4.2.2 State

California Air Resources Board: The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act of 1988. Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control districts and air quality management districts, establishing California Ambient Air Quality Standards (CAAQS), which in many cases are more stringent than the NAAQS, and setting emissions standards for new motor vehicles. The emission standards established for motor vehicles differ depending on various factors including the model year, and the type of vehicle, fuel and engine used.

California Clean Air Act: The California Clean Air Act (CCAA) requires that all air districts in the state endeavor to achieve and maintain CAAQS for O₃, CO, SO₂, and NO₂ by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a five percent annual reduction, averaged over consecutive three-year periods, in district-wide emissions of each non-attainment pollutant or its precursors, or (2) to provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

Table 3-4. Summary of Ambient Air Quality Standards & Attainment Designation

Pollutant	Averaging Time	California Standards*		National Standards*	
		Concentration*	Attainment Status	Primary	Attainment Status
Ozone (O ₃)	1-hour	0.09 ppm	Non-Attainment/ Severe	–	No Federal Standard
	8-hour	0.070 ppm		0.075 ppm	Non-Attainment (Extreme)**
Particulate Matter (PM ₁₀)	AAM	20 µg/m ³	Non-Attainment	–	Attainment
	24-hour	50 µg/m ³		150 µg/m ³	
Fine Particulate Matter (PM _{2.5})	AAM	12 µg/m ³	Non-Attainment	12 µg/m ³	Non-Attainment
	24-hour	No Standard		35 µg/m ³	
Carbon Monoxide (CO)	1-hour	20 ppm	Attainment/ Unclassified	35 ppm	Attainment/ Maintenance
	8-hour	9 ppm		9 ppm	
	8-hour (Lake Tahoe)	6 ppm		–	
Nitrogen Dioxide (NO ₂)	AAM	0.030 ppm	Attainment	0.053 ppm	Attainment/ Unclassified
	1-hour	0.18 ppm		0.100 ppb	
Sulfur Dioxide (SO ₂)	AAM	–	Attainment	0.03 ppm	Attainment/ Unclassified
	24-hour	0.04 ppm		0.14 ppm	
	3-hour	–		–	
	1-hour	0.25 ppm		75 ppb	
Lead	30-day Average	1.5 µg/m ³	Attainment	–	No Designation/ Classification
	Calendar Quarter	–		1.5 µg/m ³	

Pollutant	Averaging Time	California Standards*		National Standards*	
		Concentration*	Attainment Status	Primary	Attainment Status
	Rolling 3-Month Average	–		0.15 µg/m³	
Sulfates	24-hour	25 µg/m³	Attainment	No Federal Standards	
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m³)	Unclassified		
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m³)	Attainment		
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient: 0.23/km-visibility of 10 miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70%.	Unclassified		

* For more information on standards visit :<http://ww.arb.ca.gov/research/aaqs/aaqs2.pdf>

** No federal 1-hour standard. Reclassified extreme nonattainment for the federal 8-hour standard May 5, 2010.

***Secondary Standard

Source: ARB 2019; SJVAPCD 2019

Assembly Bills 1807 & 2588 - Toxic Air Contaminants: Within California, TACs are regulated primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics Hot Spots Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB designates a substance as a TAC. Existing sources of TACs that are subject to the Air Toxics Hot Spots Information and Assessment Act are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

San Joaquin Valley Air Pollution Control District: The San Joaquin Valley Air Pollution Control District (SJVAPCD) is the agency primarily responsible for ensuring that NAAQS and CAAQS are not exceeded and that air quality conditions are maintained in the SJVAB, within which a proposed project is located. Responsibilities of the SJVAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution, and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the FCAA and the CCAA.

3.4.2.3 Regulatory Attainment Designations

Under the CCAA, the CARB is required to designate areas of the state as attainment, nonattainment, or unclassified with respect to applicable standards. An “attainment” designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A “nonattainment” designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme

nonattainment being the most severe of the classifications. An “unclassified” designation signifies that the data does not support either an attainment or nonattainment designation. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The USEPA designates areas for O₃, CO, and NO₂ as “does not meet the primary standards,” “cannot be classified,” or “better than national standards.” For SO₂, areas are designated as “does not meet the primary standards,” “does not meet the secondary standards,” “cannot be classified,” or “better than national standards.” However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used. The USEPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, USEPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for PM₁₀ based on the likelihood that they would violate national PM₁₀ standards. All other areas are designated “unclassified.”

The state and national attainment status designations pertaining to the SJVAB are summarized in **Table 3-4**. The SJVAB is currently designated as a nonattainment area with respect to the state PM₁₀ standard, ozone, and PM_{2.5} standards. The SJVAB is designated nonattainment for the national 8-hour ozone and PM_{2.5} standards. On September 25, 2008, the USEPA redesignated the San Joaquin Valley to attainment for the PM₁₀ NAAQS and approved the PM₁₀ Maintenance Plan.

3.4.3 Impact Assessment

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The Project would not conflict with or obstruct the implementation of the air quality management standards. Standards set by the SJVAPCD, CARB, and Federal agencies relating to the Project would continue to apply. PVWD would reduce their groundwater pumping and the majority of the water for SVWRA would be to offset SWP allocations. Any groundwater pumping would continue under current regulations for all participants. CVP pumping for the Replacement Water would occur with or without the project and is part of baseline conditions. PID’s pre-1914 water pumping is also part of baseline conditions and additional pumping would not occur. Therefore, there would be no impact.

b) Would the project 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?

No Impact. See analysis in impact ‘a’ above. The Project proposes no construction, or new equipment. There is no potential for an increase in air emissions associated with this Project. There would be no impact.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

No Impact. Considering the lack of construction or additional emissions would not be a source of odors, TAC naturally occurring asbestos or fugitive dust; therefore, there would be no impact.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

No Impact. See analysis in impact ‘c’ above. There would be no impact.

3.5 Biological Resources

Table 3-5. Biological Resources

Biological Resources				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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 Wildlife 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 Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (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?	☐	☐	☐	☒

3.5.1 Environmental Setting

Fresno, Kings and Kern Counties contain a variety of biological communities and wildlife habitats that provide recreational opportunities and contribute to the overall functionality of valley and foothill ecosystems. The Project does not involve any new construction or earthmoving activities, and all water would be moved through existing infrastructure.

3.5.2 Regulatory Setting

3.5.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with biological resources that are applicable to the Project.

3.5.2.2 State

There are no State regulations, plans, programs, or guidelines associated with biological resources that are applicable to the Project.

3.5.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with biological resources that are applicable to the Project.

3.5.3 Impact Assessment

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 Wildlife or U.S. Fish and Wildlife Service?

No Impact. The Project involves the transfer of water from PID to SVWRA participating districts and to PVWD through existing facilities. No anticipated construction or land alterations are involved. While PID does divert water from the San Joaquin River, no change is contemplated to the diversion facilities by the Project, and no change is contemplated from the historical quantity or time of diversion.

In addition, most of the habitat types required by species protected by the Endangered Species Act do not occur in the Project area. The Project would not involve the conversion of any land fallowed and untilled for three or more years. Such actions would require subsequent environmental review prior to implementation. The Project also would not change the land use patterns of the cultivated or fallowed fields that do have some value to listed species. There are no listed fish species in the DMC And no critical habitat occurs within the area affected by the Project, and so none of the primary constituent elements of any critical habitat would be affected. Any encountered biological resources are likely to be those associated with actively cultivated land. Further, pumping from the river by PID is covered under the existing Warren Act with a NEPA determination made by Reclamation of no effect. CVP pumping in the Delta is covered by a long-term BiOps⁴ agreement. Because no increased natural stream course or additional surface water pumping would occur there would be no effects on listed fish species.

There would be no impact or effects to fisheries. To the extent that PID utilizes conserved pre-1914 water supplies for this transfer, the water would be diverted from the San Joaquin River through an existing NOAA and California Department of Fish and Wildlife approved high-profile bar fish screen designed to protect migrating Chinook salmon and steelhead. There would be no impact on wetlands. The Project would have no impact on requirements imposed upon third parties to meet specify minimum flow requirements and operational constraints for listed fish and other considerations, or existing programs to enhance and protect biological resources. The Project would have no applicable impact or any effect on any listed or proposed

⁴ BiOps is a long-term voluntary agreement and recovery plan (2019) under the federal Endangered Species Act with the United States Fish and Wildlife Service, the National Marine Fisheries Service and Reclamation regarding the long-term operations of the CVP and SWP.

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threatened and endangered species pursuant to the Endangered Species Act. As such, the Project would have no impact on biological resources.

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 Wildlife or U.S. Fish and Wildlife Service?

No Impact. Riparian habitats typically occur adjacent to waterways. The Project site contains numerous waterways; however, there is no new construction or ground disturbance associated with the Project and no proposed change in land uses. The Project would not conflict with the San Joaquin County Multi-Species Habitat Conservation Plan or Open Space Plan. As such there would be no impact to riparian habitat or other sensitive natural communities.

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?

No Impact. No construction or earthmoving activities would take place as a part of the Project; as such, there would be no impacts to federally protected wetlands.

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?

No Impact. The Project would not involve any grading or expansion of the existing water conveyance facilities. There would be no construction of any buildings or facilities that would impede migratory wildlife. As such, there would be no impacts that would interfere with the movement of any wildlife species or 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?

No Impact. The Project does not involve tree removal, grading or expansion of the existing facilities and would not conflict with any existing or proposed preservation policies or ordinances. As such, there would be no impacts to local policies or ordinances protecting biological resources.

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?

No Impact. The Project would not involve any construction, or any Project activities that would interfere or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan. As such, there would be no impacts to any conservation plans.

3.6 Cultural Resources

Table 3-6. Cultural Resources

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 pursuant to in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒

3.6.1 Environmental Setting

The prehistoric populations of Fresno, Kings and Kern Counties include the territories of the Northern, Southern and Foothill Valley Tachi Yokuts, Tejon, and Western Mono Indian Tribes (Big Sandy Rancheria, Cold Springs Rancheria, and Table Mountain Rancheria). The Project is moving water from one location to another in an existing conveyance system during potential water lean years for agricultural uses. A Sacred Lands review and Cultural Resources Records Search was not prepared for this Project, due to the fact that there would be no ground disturbance, construction activities, removal of buildings or facilities associated with the water transfer over the five (5) year agreement period. There would also be no changes in land use and no alterations to the surrounding areas.

3.6.2 Regulatory Setting

3.6.2.1 Federal

Cultural resources are protected by several federal regulations, none of which is relevant to the Project because it would involve any construction or ground disturbance.

3.6.2.2 State

Cultural resources are protected by several State regulations, laws, and policies, none of which are relevant to this Project because it would involve any construction or ground disturbance.

3.6.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with cultural resources that are applicable to the Project.

3.6.3 Environmental Setting

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact. The Project would not require nor induce any new surface disturbing activities such as construction. Farming operations such as plowing, planting, and harvesting would continue to take place on land where surface disturbing activities have continuously occurred for many years, and no new or expanded uses would occur as a result of the water transfer. Therefore, there would be no substantial adverse changes in the significance of historical or archeological resources as defined in CEQA Guidelines in Section 15064.5. The Project does not involve any new construction or earthmoving activities. As such there would be no impacts to historical or archaeological resources.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

No Impact. The Project does not involve any new construction or earthmoving activities. As such there would be no impacts to archaeological resources pursuant to Section 15064.5 of the CEQA Guidelines.

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

No Impact. The Project does not involve any construction or earthmoving activities. The five (5) year water agreement between PID and the nine participating members of the SVWRA and transfer to PVWD would not require any construction activities or the need to use temporary or permanent equipment to complete the transfer. Therefore, no ground disturbance would be required. As such, there would be no impact to any human remains.

3.7 Energy

Table 3-7. Energy Impacts

Energy				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

3.7.1 Environmental Setting

The Project does not involve any construction or earthmoving. All water would be moved through existing water transfer facilities. PID would need to continue to pump the water from the Aqueduct to their service area, but this is an existing activity and would not increase the amount of energy that is currently being utilized for water transfers. It is not anticipated that there would be any material increases in fossil fuel use resulting from this Project.

3.7.2 Regulatory Setting

3.7.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with energy that are applicable to the Project.

3.7.2.2 State

There are no State regulations, plans, programs, or guidelines associated with energy that are applicable to the Project.

3.7.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with energy that are applicable to the Project.

3.7.3 Impact Assessment

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

No Impact. As discussed in Section 3.3, the Project does not involve any construction or earth moving activities. The water districts currently use energy through operation of automated gates, screens, and various pumps. No new pumps or energy operated equipment would be added as part of this Project. The districts

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would not be utilizing more energy as a result of the transferred water than they would have if full SWP allocations were being provided. Therefore, the Project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. There would be no impact.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The Project would be passive in nature and does not involve any construction or earth moving activities. The Project would not exceed any thresholds set by the SJVAPCD. There would be no impact.

3.8 Geology and Soils

Table 3-8. Geology and Soils

Geology and Soils				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Directly or indirectly cause 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 direct or indirect 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 wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

3.8.1 Environmental Setting

The participants districts are located in parts of Fresno, Kings and Kern Counties. The Alquist-Priolo Earthquake Fault Zone runs through the San Joaquin Valley. The Valley is also made up of a variety of soils. The Project does not involve any construction and would use existing water conveyance systems to transport the allocated water per the existing five (5) year agreement.

3.8.2 Regulatory Setting

3.8.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with geology and soils that are applicable to the Project.

3.8.2.2 State

There are no State regulations, plans, programs, or guidelines associated with geology and soils that are applicable to the Project.

3.8.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with geology and soils that are applicable to the Project.

3.8.3 Impact Assessment

a) Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- a-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.

No Impact. The transfer of water does not involve any habitable structures. Additionally, the Project would use existing conveyance and pumping facilities and would require no new construction. There would be no impact.

- a-ii) Strong seismic ground shaking?

No Impact. Any impacts regarding strong seismic ground shaking have been discussed in Impact a-i. There would be no impact.

- a-iii) Seismic-related ground failure, including liquefaction?

No Impact. No subsidence-prone soils or oil or gas production is involved with the Project. There would be no impact.

- a-iv) Landslides?

No Impact. No geologic landforms exist on or near the Project site that would result in a landslide event. There would be no impact.

b) Would the project result in substantial soil erosion or the loss of topsoil?

No Impact. The Project would require no new construction. No grading or earthmoving activities are associated with the Project. There would be no impact.

- c) Would the project 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?**

No Impact. There is no new construction and no earthmoving activities associated with the Project. There would be no impact.

- d) Would the project 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?**

No Impact. See analysis in impact c. There would be no impact.

- e) Would the project 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?**

No Impact. The Project does not include the use of septic tanks or other alternative waste water disposal systems. There would be no impact.

- f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

No Impact. The Project would not involve any new construction or ground disturbance; therefore, there would not be potential to uncover any historical, paleontological, or cultural resources. There would be no impact.

3.9 Greenhouse Gas Emissions

Table 3-9. Greenhouse Gas Emissions

Greenhouse Gas Emissions				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

3.9.1 Thresholds of Significance

CEQA Guidelines Amendments became effective March 18, 2010 and again in 2019. Included in the Amendments are revisions to the Appendix G Initial Study Checklist. In accordance with these Amendments, a project would be considered to have a significant impact to climate change if it would:

- a. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or,*
- b. *Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.*

In accordance with SJVAPCD's CEQA Greenhouse Gas Guidance, proposed projects complying with Best Performance Standards (BPS) would be determined to have a less-than-significant impact. Projects not complying with BPS would be considered less than significant if operational GHG emissions would be reduced or mitigated by a minimum of 29 percent, in comparison to business-as-usual (year 2004) conditions. In addition, Project-generated emissions complying with an approved plan or mitigation program would also be determined to have a less-than-significant impact.

3.9.2 Environmental Setting

According to the Office of Planning and Research's June 2014 Draft California Climate Change Research Plan:

Climate change is the biggest environmental challenge of our time. California has long been a global leader in addressing climate-related issues through cutting-edge research and innovative climate policies. Governor Brown recently joined more than 500 world-renowned researchers and scientists in releasing a groundbreaking call to action on climate change and other global threats to humanity. The 20-page consensus statement was produced at Governor Brown's request and has been signed by scientists from over 40 countries. The consensus statement connects key scientific findings from different fields into a clear warning and a call for immediate, substantial, and sustained action to preserve humanity's life support systems. The science in the consensus statement is confirmed in the October 2013 report of scientific findings by the Intergovernmental Panel on Climate Change (IPCC). The IPCC report states that "[h]uman influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes." The IPCC further concludes that "human influence has been the dominant cause of the observed warming since the mid-20th century" (IPCC 2013).

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As shown in the report Indicators of Climate Change in California (Office of Environmental Health Hazard Assessment 2013⁵), observations over the last several decades reveal clear signals of climate change and its effects in California. The growing body of scientific research shows unequivocally that this change is associated with the release of carbon dioxide and other greenhouse gases (GHGs) resulting from burning fossil fuels as well as other human activities. Using sophisticated computer models, climate research projects an unprecedented rate of rise in temperature with shifting patterns of precipitation and more extreme weather events in the future. Climate change and the efforts of the State to confront it will touch nearly every aspect of the state's planning and investment for the future. Over the next few decades, significant reductions in GHG emissions will be necessary to avoid the worst consequences of climate change. At the same time, California must escalate and accelerate its efforts to safeguard the State from the already-observable climate change as well as the larger changes that will be unavoidable in the future. Scientific research sponsored by the State of California has provided new knowledge that has enabled California to respond with science-based policies. New, carefully targeted research is necessary to inform future policy development and implementation⁶.

Greenhouse Gases

According to the SJVAPCD's 2014 *Draft Guidance for Assessing and Mitigating Air Quality Impacts*⁷, Greenhouse gases (GHGs) are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. There are no "attainment" concentration standards established by the Federal or State government for greenhouse gases. In fact, GHGs are not generally thought of as traditional air pollutants because greenhouse gases, and their impacts, are global in nature, while air pollutants affect the health of people and other living things at ground level, in the general region of their release to the atmosphere. Some greenhouse gases occur naturally and are emitted into the atmosphere through both natural processes and human activities. Other GHGs are created and emitted solely through human activities. The principal greenhouse gases that enter the atmosphere because of human activities are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated carbons⁸.

3.9.3 Regulatory Setting

3.9.3.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with GHGs that are applicable to the Project.

3.9.3.2 State

There are no State regulations, plans, programs, or guidelines associated with GHGs that are applicable to the Project.

3.9.3.3 Local

There are no local regulations, plans, programs, or guidelines associated with GHGs that are applicable to the Project.

⁵California Office of Environmental Health Hazard Assessment. (2013, August 8). *OEHHA 2013 Report: Indicators of Climate Change in California*. <https://oehha.ca.gov/climate-change/report/2013-report-indicators-climate-change-california>. Accessed July 2020.

⁶California Office of Environmental Health Hazard Assessment 2013. Accessed July 2020.

⁷San Joaquin Valley Air Pollution Control District. (2015, February 19). *Guidance for Assessing and Mitigating Air Quality Impacts*. Retrieved from Guidance for Assessing and Mitigating Air Quality Impacts: <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>

⁸San Joaquin Valley Air Pollution Control District, 2015. Accessed July 2020.

3.9.4 Impact Assessment

- a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

No Impact. The Project does not include construction, earthmoving activities, or a change in land use. There would be no impact.

- b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

No Impact. See analysis in impact a. There would be no impact.

3.10 Hazards and Hazardous Materials

Table 3-10. Hazards and Hazardous Materials

Hazards and Hazardous Materials				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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 or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

3.10.1 Environmental Setting

There are a number of federal and State databases that provide information regarding facilities or sites identified as meeting the Cortese List requirements and which list the past and present businesses that have had or are currently experiencing a hazardous material release within the County. These include Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS), GeoTracker (the leaking underground storage tank database), EnviroStor, the Toxic Release Inventory, and the List of Active Cease and Desist Orders and Cleanup and Abatement Orders.

Products as diverse as gasoline, paint, solvents, household cleaning products, refrigerants, and radioactive substances are categorized as hazardous materials. What remains of a hazardous material after use, or

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processing, is considered to be a hazardous waste and must identify the handling, transportation, and disposal of such wastes, as well as proper handling of hazardous materials.

Beginning in the 1970s, governments at the federal, State, and local levels became increasingly concerned about the effects of hazardous materials management on human health and the environment. Numerous laws and regulations were developed to investigate and mitigate these effects. As a result, the storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated by federal, State, and local laws and regulations.

3.10.2 Regulatory Setting

3.10.2.1 Federal

Hazards and Hazardous materials are heavily regulated by several federal regulations, none of which is relevant to the Project because it would involve any construction or ground disturbance or use of hazardous materials or generate hazardous waste.

3.10.2.2 State

Hazards and Hazardous materials are heavily regulated by several State regulations, none of which is relevant to the Project because it would involve any construction or ground disturbance or use of hazardous materials or generate hazardous waste.

3.10.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with cultural resources that are applicable to the Project.

3.10.3 Impact Assessment

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? and;

No Impact. The Project involves the transfer of water from PID to SVWRA participating districts and from SVWRA to PVWD through existing facilities. No unanticipated construction or land alterations are involved. Additionally, there would be no transport, use or disposal of hazardous materials. Therefore, there is nothing applicable to any hazardous material with the Project. As such, there would be no impact to the public or the environment.

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?

No Impact. The Project would not create a significant hazard to the public or the environment as the Project would not discharge hazardous materials into the environment. As such, there would be no impact to 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?

No Impact. The Project does not include activities that would emit hazardous emissions or handle hazardous materials or substances. No construction is associated with Project activities and therefore no construction

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equipment would be used. As such, there would be no impact of hazardous emissions, materials, or substances, to any schools along the existing Project path.

- 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?**

No Impact. The Project does not involve any construction or placement of habitable structures. Therefore, there would be no impact 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?; and,**

No Impact. Although there are airports throughout the Fresno, Kings and Kern Counties, the Project involves existing water conveyance systems, and no new construction or alterations of the existing facilities are planned as part of the Project. Therefore, the Project site would not result in a safety hazards for people residing or working in the Project area related to public airport activities. As such there would be no impact from safety hazards to people residing or working in the area.

- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

No Impact. The Project occurs on existing waterways and involves no construction activities. It would not interfere with the emergency response and evacuation procedures outlined in the Fresno, Kern and Kings County Emergency Plans. The Emergency Plan establishes the Standardized Emergency Management System required by State law, and includes information on mutual aid agreements, hierarchies of command, and different levels of response in emergency situations. As such there would be no impact.

- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?**

No Impact. The Project consists of moving water within existing water conveyance systems. There is no construction of any kind. As such, the Project would not directly or indirectly expose people or structures, to wildland fire risks.

3.11 Hydrology and Water Quality

Table 3-11. Hydrology and Water Quality

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 or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would?	☐	☐	☐	☒
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☐	☒
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite;	☐	☐	☐	☒
iii) 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; or	☐	☐	☐	☒
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

3.11.1 Environmental Setting/Affected Environment

Like most of California, the San Joaquin Valley experiences a Mediterranean climate. Warm, dry summers are followed by cool, moist winters. Summer temperatures often reach above 90 degrees Fahrenheit, and the humidity is generally low. Winter temperatures are often below 60 degrees Fahrenheit during the day and rarely exceed 70 degrees. On average, the San Joaquin Valley receives approximately 12 inches of precipitation in the form of rainfall yearly, most of which occurs between October and March.

The Project involves the transfer of surface water from PID to SVWRA participating districts and SVWRA transfer to PVWD through existing facilities and does not include transfer of any groundwater. No unanticipated construction or land alterations are involved. There is less surface water applied in PID as a result of conservation efforts, use of reclaimed water, and a pre-existing reduction in irrigated acres.

3.11.2 Regulatory Setting

3.11.2.1 Federal

Clean Water Act

The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect Waters of the United States including streams and wetlands (33 CFR 328.3). The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant Discharge Elimination System (NPDES) permit process was established to regulate these discharges. The CWA also provides an exemption from the NPDES permitting process for agricultural return flows, which are to be regulated by the State. Such flows are regulated under the California Porter-Cologne Water Quality Act. Both types of permits--NPDES and those for exempt flows under the CWA--are issued by the State of California.

The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes.

3.11.2.2 State

State Water Resources Control Board

The State Water Resources Control Board (SWRCB), located in Sacramento, is the agency with jurisdiction over water quality issues in the State of California. The SWRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code), which establishes the legal framework for water quality control activities by the SWRCB. The intent of the Porter-Cologne Act is to regulate factors which may affect the quality of waters of the State to attain the highest quality which is reasonable, considering a full range of demands and values. The State implements water quality by establishing Basin Plans, which determine the protected beneficial uses and required water quality objectives in different designated basins. The implementation of Basin Planning and the issuing of permits is delegated by the SWRCB to its nine Regional Boards. The Project site is regulated by the Regional Board for the Central Valley Region.

California Department of Water Resources

In 2014 the DWR enacted the Sustainable Groundwater Management Act (SGMA) as directed by a three-bill legislative package composed of AB 1739, Senate Bill (SB) 1168 and 1319 and signed into law by Governor Jerry Brown. SGMA requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically overdrafted basins, that would be 2040. For the remaining high and medium priority basins, 2042 is the deadline. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably and requires those GSAs to adopt Groundwater Sustainability Plans (GSPs)⁹ for crucial groundwater basins in California.

⁹Kern-Tulare Water District Groundwater Sustainability Plan. (2019, December 12). <http://www.kerngwa.com/assets/kern-tulare-water-district-management-area-plan.pdf>. Accessed July 2020.

3.11.2.3 Local

Hydrology and Water Quality resources are protected by Fresno, Kings and Kern County regulations and are found in Fresno, Kings and Kern County General Plans and Groundwater Sustainability Plans (collectively, Plans). These Plans aid in water conservation and overall water availability for the area. The Project would benefit various regions with needed water during a low water year, reducing recovery from groundwater basins.

3.11.3 Impact Assessment

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

No Impact. The Project consists of moving water through existing conveyance systems and does not involve any new construction, earthmoving activities or change in land use. The transfer of surface water from PID to SVWRA districts and PVWD does not include the transfer of any groundwater. The Project would not violate any water or groundwater quality standards nor would it impact waste discharge requirements. As such, there would be no impact.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. The Project consists of moving water through existing conveyance systems. The transfer of surface water from PID to SVWRA districts and PVWD does not include the transfer of any groundwater. Additionally, the transfer water would be used for existing agricultural uses and not stored as groundwater. Therefore, there would be no additional impact to groundwater supplies or interfere with substantially with groundwater recharge.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:

- (i) result in substantial erosion or siltation on- or off-site;
- (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite;
- (iii) 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; or
- (iv) impede or redirect flood flows?

No Impact. Grading or construction activities are not part of the Project. Roads, staging areas, or other ground disturbing activities that cause erosion and siltation are also not part of this . Therefore, drainage patterns would not be altered and there would be no surface runoff adding sources of pollutants or impediments of water flows as a result of transferring water through existing waterways. As such, there would be no impact.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. The Project would use existing water conveyance systems with no additional structures to be constructed and would not add or release any pollutants to the waterway. The Project would not involve the construction of housing. The transfer would use existing PID, CVP, SWP, SVWRA member and PVWD delivery and storage facilities, which were constructed to standard engineering design practices to limit the

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potential for exposure of people or property to water-related hazards, such as flooding. The Project would not expose people or property to water-related hazards such as flooding or impede or redirect flood flows. The Project would not expose people, structures, or associated facilities to inundation of seiche, tsunami, or mudflow. As such, there would be no impacts due to flood hazards, tsunamis or seiche zones.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. Fresno, Kings, and Kern Counties currently have several GSPs for different regions and authored and implemented by different local agencies. The Project is located in the groundwater subbasins 5-002.10 San Joaquin Valley - Pleasant Valley, 5-022.12 San Joaquin Valley – Tulare Lake and 5-022.14 San Joaquin Valley – Kern County.¹⁰ The GSPs for these basins were developed in order to achieve long-term groundwater sustainability in the various Subbasins. The Subbasins in the San Joaquin Valley are classified as a high-priority Subbasins by the DWR and are identified as critically over-drafted¹¹¹². This Project would assist with water delivery to the public water districts in SVWRA and PVWD during draught years to assist with local agricultural irrigation and not stored as groundwater. As such, the Project would not conflict with or obstruct implementation of any water quality control plan or sustainable groundwater management plans and there would be no impacts.

¹⁰State of California Department of Water Resources SGMA Portal. <https://sgma.water.ca.gov/portal/#intro>. Accessed on July 16, 2020.

¹¹South Fork Kings Groundwater Sustainability Agency, 2019. <https://southforkkings.org/gsp/>. Accessed on July 16, 2020.

¹²Kern Goundwater Authority Groundwater Sustainability Plan (2020, January). www.kerngwa.com/assets/kgwa-umbrella-gsp_final.pdf. Accessed on December 11, 2020.

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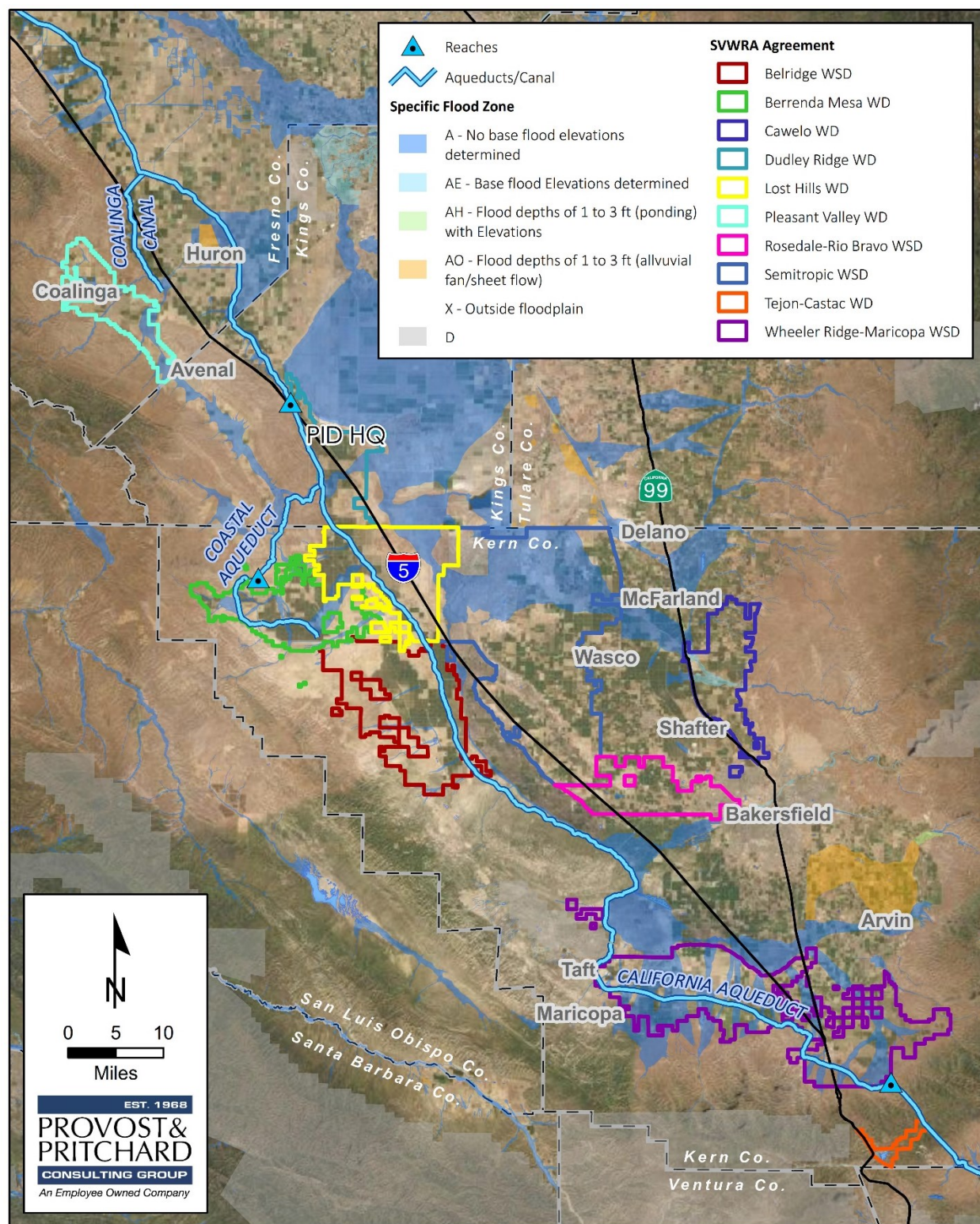
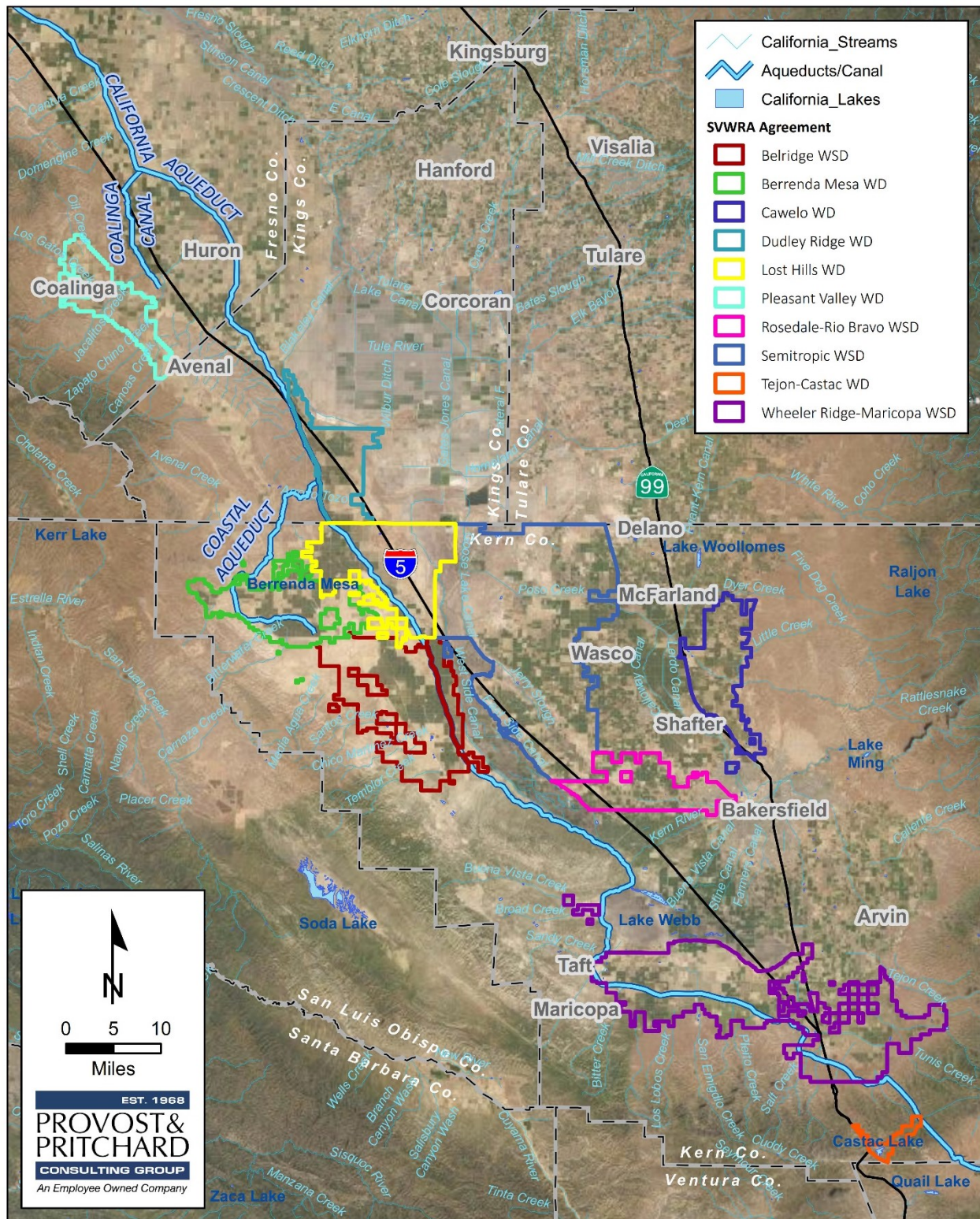


Figure 3-2. FEMA Flood Map

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Figure 3-3. Hydrology Map

3.12 Land Use and Planning

Table 3-12. Land Use and Planning

Land Use and Planning				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.12.1 Environmental Setting

The Project is located in Fresno, Kings, and Kern Counties. Fresno County has approximately 999,101 residents¹³. Kings County has approximately 152,940 residents¹⁴. Kern County has approximately 883,053 residents¹⁵.

3.12.2 Regulatory Setting

3.12.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with land use and planning that are applicable to the Project.

3.12.2.2 State

There are no State regulations, plans, programs, or guidelines associated with land use and planning that are applicable to the Project.

3.12.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with land use and planning that are applicable to the Project.

¹³United States Census Bureau Fresno County CA, 2020. <https://data.census.gov/cedsci/all?q=fresno%20county>. Accessed October 13, 2020

¹⁴United States Census Bureau Kings County CA, 2020. <https://data.census.gov/cedsci/all?q=Kings%20County,%20California>. Accessed July 16, 2020

¹⁵United States Census Bureau Kern County CA, 2020. <https://data.census.gov/cedsci/profile?q=Kern%20County,%20>. Accessed July 16, 2020

3.12.3 Impact Assessment

a) Would the project physically divide an established community?

No Impact. The Project would utilize existing water conveyance facilities and is not proposing the construction of any new facilities. The Project would be in conformance with all land use policies and general plans. There would be no impact.

b) Would the project cause a significant environmental conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. See analysis in impact a. There would be no impact.

3.13 Mineral Resources

Table 3-13. Mineral Resources

Mineral Resources				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

3.13.1 Environmental Setting

There are various mining activities and mineral resources through Fresno, Kings and Kern Counties. The Project would not involve any ground disturbance or construction activities.

3.13.2 Regulatory Setting

3.13.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with mineral resources that are applicable to the Project.

3.13.2.2 State

There are no State regulations, plans, programs, or guidelines associated with mineral resources that are applicable to the Project.

3.13.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with mineral resources that are applicable to the Project.

3.13.3 Impact Assessment

a) Would the project 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?

No Impact. The Project would not result in significant impacts associated with the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, considering there would be no construction or earthmoving activities associated with implementation. There would be no impact.

b) Would the project 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?

No Impact. The Project is intended to use existing infrastructure to convey water. It would not alter any existing land uses. Therefore, the Project would not result in the loss of availability of a locally important mineral resource recovery site. There would be no impact.

3.14 Noise

Table 3-14. Noise

Noise				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) 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?	☐	☐	☐	☒

3.14.1 Environmental Setting

Ambient noise levels in Fresno, Kings and Kern Counties vary widely and mainly come from noise generators such as major roads, agricultural equipment, airports, and rail lines.

3.14.2 Regulatory Setting

3.14.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with noise that are applicable to the Project.

3.14.2.2 State

There are no federal regulations, plans, programs, or guidelines associated with noise that are applicable to the Project.

3.14.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with noise that are applicable to the Project.

3.14.3 Impact Assessment

- a) Would the project result in Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

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No Impact. The Project involves the movement of water through existing conveyance facilities. No construction or earthmoving activities are with the Project and accordingly, there would be no impact resulting from noise or vibration.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

No Impact. See analysis in impact 3.13.3 a. There would be no impact.

c) For a project located within the vicinity of a private airstrip or 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?

No Impact. The Project would use existing water conveyance facilities and does not involve the building of habitable structures. Therefore, the Project would not expose people residing or working to an increase in noise levels. There would be no impact.

3.15 Population and Housing

Table 3-15. Population and Housing

Population and Housing				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Induce substantial unplanned 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 people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.15.1 Environmental Setting

Fresno, Kings and Kern Counties are neighboring counties that are located in the San Joaquin Valley, the southern portion of California's Central Valley. Fresno County has approximately 999,101 residents¹⁶. Kings County has approximately 152,940 residents¹⁷. Kern County has approximately 883,053 residents¹⁸.

3.15.2 Regulatory Setting

3.15.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with population or housing that are applicable to the Project.

3.15.2.2 State

There are no State regulations, plans, programs, or guidelines associated with population and housing that are applicable to the Project.

3.15.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with population and housing that are applicable to the Project.

¹⁶United States Census Bureau Fresno County CA, 2020. <https://data.census.gov/cedsci/all?q=fresno%20county>. Accessed October 13, 2020.

¹⁷United States Census Bureau Kings County CA, 2020). <https://data.census.gov/cedsci/all?q=Kings%20County,%20California>. Accessed July 16, 2020.

¹⁸United States Census Bureau Kern County CA, 2020. <https://data.census.gov/cedsci/profile?q=Kern%20County,%20>. Accessed July 16, 2020.

3.15.3 Impact Assessment

a) Would the project induce substantial unplanned 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)?

No Impact. The Project would utilize existing water conveyance facilities and does not propose any new construction or earthmoving activities. The Project would improve the reliability of the water supply to the existing agricultural operations of SVWRA participants and reduce groundwater pumping for PVWD due to the quantity of surface water made available as a result of the Project. SVWRA may provide up to 2,000 AF/Y to PVWD to assist in providing water for local agricultural lands. Implementation of the Project would not indirectly or directly induce population growth in the area. There would be no impact.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project does not propose any construction. No housing or people would be displaced, and no new housing would be constructed as part of the Project or required as a result of it. There would be no impact.

3.16 Public Services

Table 3-16. Public Services

Public Services				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

3.16.1 Environmental Setting

Fresno, Kings and Kern Counties maintain public services for their respective jurisdictions and provide fire and police protection, as well as schools, parks and other public facilities and services. The Project consists of utilizing existing water convenience structures to provide water to various public water districts in order to assist with groundwater replenishment and agriculture irrigation and would not require additional public services to be provided to the area within the SVRWA districts and PVWD.

3.16.2 Regulatory Setting

3.16.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with public services that are applicable to the Project.

3.16.2.2 State

There are no State regulations, plans, programs, or guidelines associated with public services that are applicable to the Project.

3.16.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with public services that are applicable to the Project.

3.16.3 Impact Assessment

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:

No Impact. The Project would not include any construction. The Project would utilize existing water conveyance and pumping facilities to transfer the water. There would not be an additional need for public services. There would be no impact.

3.17 Recreation

Table 3-17. Recreation

Recreation				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	☐	☐	☐	☒

3.17.1 Environmental Setting

Fresno, Kings, and Kern County's offer a variety of recreational opportunities through their Parks and Recreation Departments and nearby State and federal lands. The Project consists of existing water conveyance structures to provide water to various public water districts to assist with agriculture irrigation. There may be recreational areas for the public to utilize near the PID existing structures such as parks, camping and hiking trails, but the majority of the Project area is surrounded by agricultural lands and private property.

3.17.2 Regulatory Setting

3.17.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with recreation that are applicable to the Project.

3.17.2.2 State

There are no State regulations, plans, programs, or guidelines associated with recreation that are applicable to the Project.

3.17.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with recreation that are applicable to the Project.

3.17.3 Impact Assessment

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?

No Impact. The Project would not result in either an influx of population (e.g., by creation of housing or creation of jobs) or relocation of persons from elsewhere into the Project area. As such, there would be no impact.

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?

No Impact. The Project does not include recreational facilities. As there is no population growth resulting directly or indirectly from Project implementation, construction or expansion of nearby recreational facilities would not be necessary. There would be no impact.

3.18 Transportation

Table 3-18. Transportation/Traffic

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)??	☐	☐	☐	☒
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

3.18.1 Environmental Setting

The main form of transportation in Kings and Kern Counties is through vehicle travel. Highway 33, 41, and 198 are located in Fresno and Kings County. Highways 65, 99, 58, 46, 119, 178, and 223 are located in Kern County. Highway 43 run through Kings and Kern counties and Interstate 5 runs through all three counties.

3.18.2 Regulatory Setting

3.18.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with transportation that are applicable to the Project.

3.18.2.2 State

There are no State regulations, plans, programs, or guidelines associated with transportation that are applicable to the Project.

3.18.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with transportation that are applicable to the Project.

3.18.3 Impact Assessment

a) Would the project conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? And

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 Subdivision (b)?

No Impact. There is no population growth associated with the Project, nor would implementation of the Project result in an increase of staff or drivers utilizing roadways in the area. Therefore, implementation of the Project would not increase the demand for any changes to congestion management programs or interfere with existing level of service standards during the operational phase. There would be no impact.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. No roadway design features are associated with this Project and there would be no change in the existing land use that could result in an incompatible use. There would be no impact.

d) Would the project result in inadequate emergency access?

No Impact. No roads would be modified as a result of this Project. As discussed in Impact f; there would be no impact to any emergency access.

3.19 Tribal Cultural Resources

Table 3-19. Tribal Cultural Resources

Tribal 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 tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☐	☐	☒
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

3.19.1 Environmental Setting

The District's associated with SVWRA, PVWD and the water transfer agreement has not received any letters from any California recognized Native American tribes, regarding consultation pursuant to California Statute: Public Resources Code Section 21080.3.1.

3.19.2 Regulatory Setting

3.19.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with tribal resources that are applicable to the Project.

3.19.2.2 State

Assembly Bill 52

The Project is subject to Native American consultation pursuant to California statute: PRC Section 21080.3 (AB 52). Under AB 52, the lead agency, within 14 days of determining that an application is complete, must notify any Native American Tribe that has previously requested such notification about the Project and inquire whether the Tribe wishes to initiate formal consultation. Tribes have 30 days from receipt of notification to request formal consultation. The lead agency then has 30 days to initiate the consultation, which then continues

Chapter 3: Impact Analysis – Tribal Cultural Resources

Groundwater Replenishment Program: Surplus Surface Water Delivery Project

until the parties come to an agreement regarding necessary mitigation or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith, but no agreement will be made.

Per the statute, tribal consultation is required only with those tribes that formally request consultation in writing.

CEQA

CEQA is applicable to discretionary actions by state or local lead agencies. Under CEQA, lead agencies must analyze impacts to cultural resources. Significant impacts under CEQA occur when “historically significant” or “unique” cultural resources are adversely affected, which occurs when such resources could be altered or destroyed through project implementation. Historically significant cultural resources are defined by eligibility for or by listing in the California Register of Historical Resources (CRHR). In practice, the federal National Register of Historic Places (NRHP) criteria (see below) for significance applied under Section 106 are generally (although not entirely) consistent with CRHR criteria (see PRC Section 5024.1, Title 14 CEQA Guidelines, Section 4852 and Section 15064.5(a)(3)).

Significant cultural resources are those archaeological resources and historical properties that:

- (A) Are associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- (B) Are associated with the lives of persons important in our past;
- (C) Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
- (D) Have yielded, or may be likely to yield, information important in prehistory or history.

Unique resources under CEQA, in slight contrast, are those that represent:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC § 21083.2(g)).

Preservation in place is the preferred approach under CEQA to mitigating adverse impacts to significant or unique cultural resources.

3.19.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with tribal resources that are applicable to the Project.

3.19.3 Impact Assessment

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a-i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)

No Impact: The districts associated with the PID/SVWRA water transfer Project have not received any letters from a California Native American tribe regarding tribal resources within the Project vicinity. Additionally, no tribal letters have been received by PVWD. Considering the lack of construction or earthwork activities, that no vegetation would be removed, no landmarks or building would be altered, and that the Project would use only existing infrastructure there would be no impact to Tribal resources.

a-ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

No Impact: As stated above, the lack of construction activities prevents the disturbance of any potential tribal resources as a result of the Project. As such, there would be no impact to tribal resources.

3.20 Utilities and Service Systems

Table 3-20. Utilities and Service Systems

Utilities and Service Systems				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) 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?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reductions goals?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

3.20.1 Environmental Setting

PID, SVWRA, and PVWD are responsible for providing irrigation water for agricultural use within the various district service areas. The Project would use existing facilities to transport the water from PID to the SVWRA participating districts and potentially SVWRA to PVWD and would not extend service to locations outside of the agreed service areas. All utilities needed for the water transfer are already in place and currently being utilized as needed. The intent of the water transfer is the replacement of surplus surface water for agricultural use within the district's boundaries.

3.20.2 Regulatory Setting

3.20.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with utilities and service systems that are applicable to the Project.

3.20.2.2 State

There are no State regulations, plans, programs, or guidelines associated with utilities and service systems that are applicable to the Project.

3.20.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with utilities and service systems that are applicable to the Project.

3.20.3 Impact Assessment

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact. The Project would not involve the relocation or construction of any new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. The conveyance of the excess water would be done through existing water conveyance facilities. There would be no impact.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact. No new or expanded water entitlements would be required for the Project. Water utilized as part of the Project would be surplus water from PID to SVWRA districts and PVWD, and the transfer water would use be used for existing agricultural irrigation. There would be no impact.

c) 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?

No Impact. The Project would not generate additional wastewater. There would be no impact.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

No Impact. As the Project would not generate solid waste, there would be no need for an increase in solid waste capacity for the Project. There would be no impact.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. The Project would not generate solid waste. There would be no impact to any statutes or regulations related to solid waste.

3.21 Wildfire

Table 3-21. Wildfire Impacts

Wildfire				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

3.21.1 Environmental Setting and Baseline Conditions

The Project site is located in Fresno, Kings, and Kern Counties. The Project would not result in population growth and it does not involve the construction of structures, habitable or otherwise.

3.21.2 Impact Assessment

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan?**
- b) Due to slope, prevailing winds, or other factors exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?**
- c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**
- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

a–d) No Impact. As part of the Project water would be transferred through existing facilities. The Project does not involve construction of any structures or earthmoving activities. Therefore, further analysis of the Project's potential impacts regarding wildfire are not warranted. There would be no impacts.

3.22 CEQA Mandatory Findings of Significance

Table 3-22 Mandatory Findings of Significance Impacts

Mandatory Findings of Significance Impacts				
Does the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have the potential to substantially 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 the major periods of California history or prehistory?	☐	☐	☐	☒
b) 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) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

3.22.1 Impact Assessment

a) Does the project have the potential to substantially 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 the major periods of California history or prehistory?

No Impact.

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)?

No Impact.

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

No Impact.

3.23 DETERMINATION:

On the basis of this initial evaluation:

- ☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

02/16/2021

Date

Vince Lucchesi

Print

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Appendix A Environmental Assessment Report



— BUREAU OF —
RECLAMATION

Patterson Irrigation District Transfers to the South Valley Water Resources Authority and Pleasant Valley Water District

CGB-EA-2021-017

**Draft Environmental Assessment/Initial Study and Negative
Declaration**

Estimated Lead Agency Total
Costs Associated with Developing
and Producing this EA

\$26,000

Mission Statements

The Department of the Interior (DOI) conserves and manages the Nation's natural resources and cultural heritage for the benefit and enjoyment of the American people, provides scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.

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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1 Introduction

This Environmental Assessment (EA)/Initial Study (IS) was jointly prepared by the Bureau of Reclamation (Reclamation) as the lead federal agency and Patterson Irrigation District (Patterson) as lead state agency to satisfy the requirements of both the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). Throughout this document, Proposed Action and Proposed Project are used interchangeably and both terms reflect the Project as described below.

1.1 Background/Project Overview

In 2015, Reclamation completed an EA (14-021) on the proposed issuance of a series of five-year Warren Act Contracts to Patterson for the introduction, conveyance, and storage of up to 10,000 acre-feet per year (AF/Y) of its pre-1914 San Joaquin River water rights water through Central Valley Project (CVP) facilities for delivery within Patterson for irrigation purposes through December 31, 2045. The EA analyzed impacts on the following resources: air quality, biological resources, cultural resources, environmental justice, global climate, Indian Sacred Sites, Indian Trust Assets, land use, socioeconomics, and water resources. As the water source came from existing diversions by Patterson, was moved through existing facilities for existing purposes, and did not change land use conditions, Reclamation determined that there would be no significant impacts to any of the resources and issued a Finding of No Significant Impact (FONSI) on February 2, 2015. The FONSI/EA-14-021 (Reclamation 2015) are hereby incorporated by reference. Patterson was issued a Warren Act Contract (Contract Number 20-WC-20-5658) that allows Patterson to introduce, store, and convey up to 10,000 AF/y of its pre-1914 water into the Delta-Mendota Canal for the period August 21, 2020 through February 28, 2025.

Since then, Patterson has developed an agreement with the South Valley Water Resources Authority (South Valley Authority) to annually transfer up to 10,000 AF or its pre-1914 San Joaquin River water rights water and CVP Replacement Water¹ over a 5-year period for distribution to some of its member districts except in critical water years when hydrology does not improve. The following South Valley Authority participants would be recipients of the transfers: Belridge Water Storage District, Berrenda Mesa Water District, Cawelo Water District, Dudley Ridge Water District, Lost Hills Water District, Rosedale-Rio Bravo Water Storage District, Semitropic Water Storage District, Tejon-Castac Water District, Wheeler Ridge-Maricopa Water Storage District (Participating Districts). In addition, up to 2,000 AF/Y of the 10,000 AF may also be transferred to Pleasant Valley Water District (Pleasant Valley).

¹As a result of a settlement reached between Patterson and Reclamation for the construction of Friant Dam and partial obstruction of natural flow from the San Joaquin River, Patterson receives an additional 6,000 AF/y of Replacement Water from Reclamation via the Delta-Mendota Canal.

Patterson has requested approval from Reclamation to add additional points of delivery to their existing and future Warren Act contracts in order to transfer their pre-1914 water to the Participating Districts and Pleasant Valley. The Proposed Action area is shown in Figure 1.

1.2 Purpose and Need for the Proposed Action/Project Objectives

Delta pumping limitations, annual changes in hydrology, and increased loss of conveyance flexibility within the Federal and State water distribution systems has restricted CVP and State Water Project (SWP) water supply allocations creating demand for reliable supplemental water supplies. Water shortages are anticipated to continue.

The Participating Districts have a need to secure replacement water supplies to offset water supply reductions from the SWP to meet existing agricultural demands. In addition, Pleasant Valley needs to find surface water supplies in order to offset use of groundwater to meet existing crop demands.

The purpose of the project is to provide Patterson's available surface water supplies to the Participating Districts and Pleasant Valley.

1.2.1 CEQA Project Objective

The Proposed Action/Project would meet the following objectives:

1. Provide a method to move water to address drought and dry year water supplies.
2. Allow for Patterson conserved water to be transferred to South Valley Authority and Pleasant Valley for existing agricultural irrigation use.

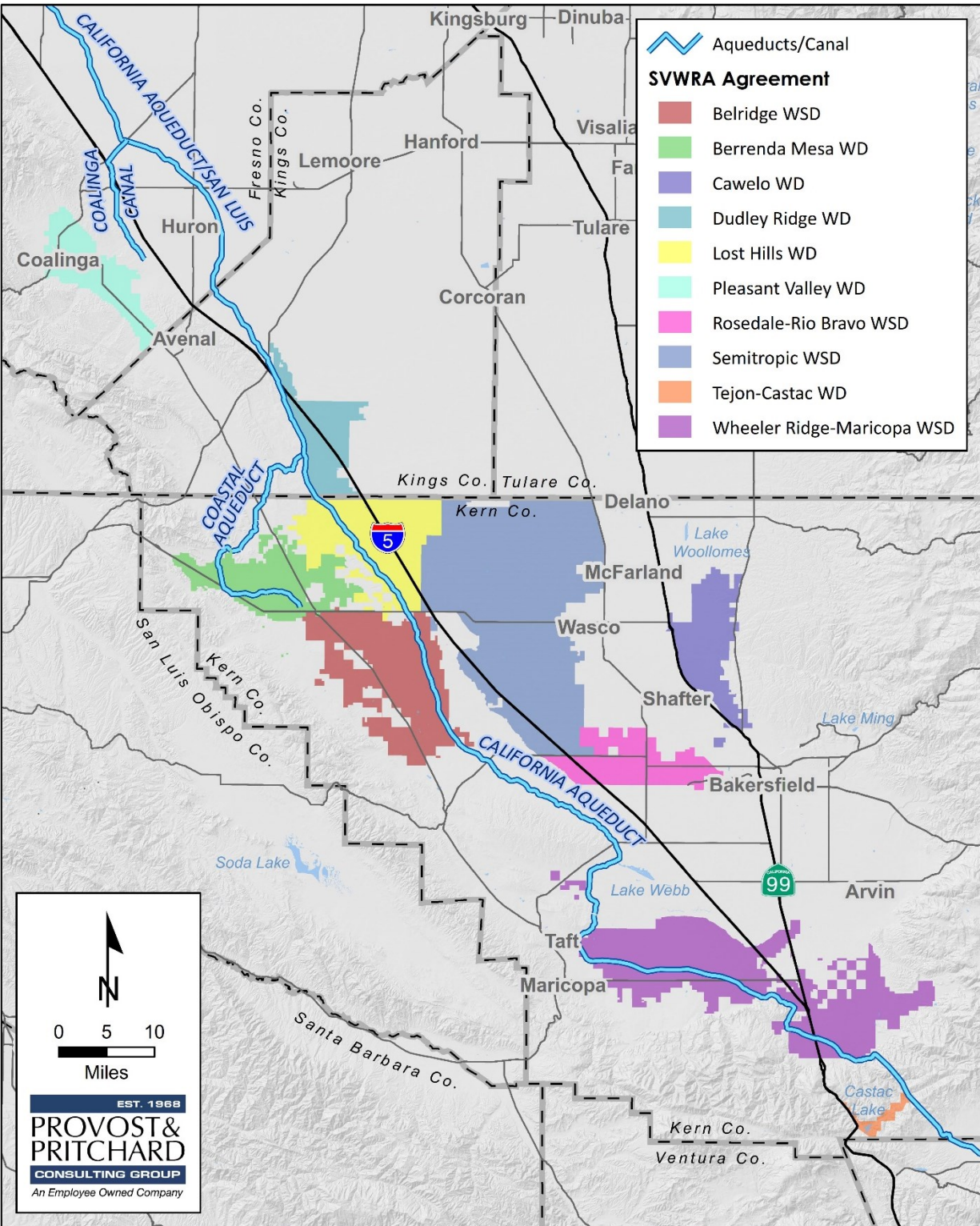


Figure 1. Proposed Action Area.

2 Alternatives Including Proposed Action

This EA/IS 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. For purposes of analysis, the No Action Alternative is the same as baseline conditions.

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not add additional points of delivery to Patterson's Warren Act Contract or approve annual transfers of Replacement Water. Patterson would continue to be able to introduce, convey, and store its pre-1914 water supplies for delivery in-district pursuant to its then-current Warren Act Contract through 2045. The Participating Districts would continue to receive their SWP water supplies pursuant to their respective contracts. Pleasant Valley would not receive a surface water supply and would be limited to the amount of groundwater available for pumping.

2.2 Proposed Action

Under the Proposed Action, Reclamation would update Exhibit C of Patterson's Warren Act Contract (Contract Number 20-WC-20-5658) to add additional points of delivery that would correspond to the delivery points for the Participating Districts off the California Aqueduct and the delivery points for Pleasant Valley off the Coalinga Canal. Reclamation would also annually approve transfers of Patterson's Replacement Water to the Participating Districts and Pleasant Valley. Patterson's Replacement Water may only be delivered within Reclamation's Consolidated Place of Use. The update to Exhibit C and annual transfers would allow up to 10,000 AF/y of Patterson's pre-1914 water rights water and Replacement Water to be delivered to the Participating Districts and Pleasant Valley over a five-year period.

Water would be conveyed through existing facilities. No construction or modification of facilities is proposed in order to complete the transfers.

Conveyance of water through the California Aqueduct will be coordinated with the California Department of Water Resources.

2.2.1 Environmental Commitments

Patterson, the Participating Districts, and Pleasant Valley shall implement the environmental protection measures included in Table 1.

Table 1. Environmental Protection Measures and Commitments

Resource	Protection Measure
Biological	The water would not be used to place untilled or native lands into production, or to convert lands that have been fallowed or untilled for three or more years.
Biological	The proposed Action cannot alter the flow of natural waterways or natural watercourses such as rivers, streams, creek, ponds, pools, wetlands, etc., that would result in the detrimental effect on fish or wildlife or species habitats.
Various	No land use conversions would occur as a result of the Proposed Action.
Various	Water supplies made available for transfer would not reduce the water supplies available to Patterson's existing agricultural users.

Environmental consequences for resource areas assume the measures specified would be fully implemented.

3 Affected Environment and Environmental Consequences

This section of the EA/IS includes the NEPA and CEQA analysis portion of the potentially affected environment and the environmental consequences involved with the Proposed Action/Proposed Project.

The affected environment for the No Action and Proposed Action is primarily the same as described in EA-14-021 (Reclamation 2015) which is incorporated by reference into this EA/IS. Rather than repeating the same information, the affected environment and environmental consequences section in this EA will focus on updates or changes.

3.1.1 Patterson Irrigation District

Patterson holds pre-1914 rights to surface water from the San Joaquin River, pursuant to a public Notice of Appropriation posted on February 10, 1909 by the Patterson Ranch Company to appropriate approximately 400 cubic-feet-per-second (cfs) for irrigation purposes from the westerly bank of San Joaquin River in Stanislaus County, California. The rights held by the Patterson Ranch Company were subsequently assigned to Patterson.

Patterson ID also receives CVP water from the Delta-Mendota Canal pursuant to Contract No. 14-06-200-3598A-LTR1-P. Patterson's CVP contract provides for two types of water service:

- Project Water – up to 16,500 AF/y.
- Replacement Water – up to 6,000 AF/y.

Since 1997, Patterson has aggressively pursued automation and modernization of its pumping, distribution, and delivery systems. Modernization efforts have included replacing less efficient pumps and motors with more efficient units and constructing and installing accurate and reliable flow measurement structures and systems, installing and implementing state-of-the-art pumping plant control systems and a power monitoring SCADA system at its five pumping plants on the

Main Canal. Patterson also participated in the California Energy Commission's pump testing and pump retrofit/repair program through a funding program provided by Reclamation. Patterson worked with the Irrigation Training and Research Center at California Polytechnic State University in San Luis Obispo to develop a canal automation system including flow meters and volumetric options for measuring flow rate. As they were implemented, these efforts increased the efficiency of Patterson's pumping and delivery system.

Patterson has also constructed and operates two reservoir projects which allow for reclaimed water usage. Tail water and farm drainage water return flows in the district historically either percolated into the groundwater aquifer or were returned to the San Joaquin River via drainage facilities. These two innovative reservoir recovery systems recover the irrigation tailwater before it returns to the San Joaquin River.

Patterson has also implemented a recycled water return project recapturing drain and spill water from in-District and adjacent farming areas to the south and west. This project takes the water and introduces it into the south reservoir, from there a pump station pumps the water evenly across the southern distribution system of Patterson.

Due to the above conservation practices and the use of reclaimed water, Patterson has temporarily developed water supplies in excess of the current water demands within its service boundaries.

3.1.2 South Valley Water Resources Authority

South Valley Authority is a California public entity comprised of 13 public agency general members located in Kings and Kern Counties, including the nine Participating Districts, that received water from SWP. The Participating Districts are summarized below.

- Belridge Water Storage District was formed by landowners in 1962 and is located in western Kern County. The district encompasses approximately 92,731 acres of land with approximately 46,130 acres developed irrigated agriculture and has a contract with Kern County Water Agency for 121,508 AF of SWP Table A amount.
- Berrenda Mesa Water District was formed by landowners in 1963 for the purpose of providing irrigation water from the SWP and is located in the southern San Joaquin Valley about 50 miles northwest of the City of Bakersfield in the northwestern corner of Kern County. The district owns and operates 92,600 acres of agricultural lands and has a contract with Kern County Water Agency for 92,600 AF of SWP Table A amount.
- Cawelo Water District is located east of the City of Shafter and has 33,044 acres of land that receives surface water, approximately 75,000 AF on average per year. The district has a contract with Kern County Water Agency for 38,200 AF of SWP Table A amount.
- Dudley Ridge Water District was formed by landowners in 1962 and is located in Kings County on the western edge of the San Joaquin Valley. The district has approximately 41,350 acres of agricultural land that is supplied through a contract with DWR for 41,350 AF of SWP Table A amount.
- Lost Hills Water District was formed in 1963 and is generally located south of the town of Lost Hills and extending north and west to the Kings-Kern County line. The district encompasses approximately 74,357 acres with about 32,000 acres using irrigation water and has a contract with Kern County Water Agency for 119,110 AF of SWP Table A amount.

- Rosedale-Rio Bravo Water Storage District was formed in 1959 by landowners for the purpose of construction and operation of a groundwater recharge project. The district encompasses approximately 44,000 acres of lands of which approximately 27,500 acres are irrigated. Nearly all of the district's water supplies are used to recharge the groundwater aquifer. The district has a contract with Kern County Water Agency for 29,900 AF of SWP Table A amount.
- Semitropic Water Storage District was established in 1958 to secure SWP supplies to reduce groundwater overdraft and provide groundwater banking and storage services. The district covers an area of about 220,000 acres with approximately 135,000 to 145,000 acres irrigated for agricultural purposes. The district owns and operates a groundwater storage bank with a capacity of 1.65 million AF and has a contract with Kern County Water Agency for 155,000 AF of SWP Table A amount.
- Tejon-Castac Water District was formed in 1965 and is located in the southern portion of Kern County. The district maintains a viable groundwater resource that support the current and future beneficial uses of the local groundwater. Tejon manages 19,280 acres and has a contract with Kern County Water Agency for 5,278 AF of SWP Table A amount.
- Wheeler Ridge-Maricopa Water Storage District was formed in 1959 and is located in Kern County at the southern end of the San Joaquin Valley south of Bakersfield. The district encompasses about 147,000 acres and provides water for the benefit of about 90,000 acres of irrigated farmland within its boundaries. The district has a contract with Kern County Water Agency for 197,088 AF of SWP Table A amount.

3.1.3 Pleasant Valley

Pleasant Valley is a California Water District located in western Fresno County, southeast of the City of Coalinga, that includes approximately 38,000 total acres of which 30,000 acres are rated as farmable. Pleasant Valley does not have a water supply contract with the SWP or CVP. Pleasant Valley has started importing surface water supplies to help offset over drafting of its groundwater supply.

3.2 Resources Eliminated from Further Analysis

Reclamation and Patterson analyzed the affected environment and determined that the Proposed Action did not have the potential to cause adverse effects to the resources listed in Table 2.

Table 2. Resources Eliminated from Further Analysis

Resources	Reason Eliminated
Aesthetics	There would be no physical changes associated with the Proposed Action. Water would be conveyed through existing facilities for existing agricultural purposes and would not have any adverse effect on the surrounding aesthetics
Agriculture and Forestry Resources	The transfers would provide surplus conserved water only and would not reduce the water supplies available to Patterson's existing agricultural users. Similarly, no land conversion would take place in the Participating Districts or Pleasant Valley as the water transferred is intended to replace depleted supplies, not increase existing agricultural development. Water would not be provided to lands that

Resources	Reason Eliminated
	have not been historically cultivated. Construction or land alterations activities are not involved with the Proposed Action.
Air Quality	Under the Proposed Action, water would continue to be conveyed through existing facilities either by gravity or existing pumps and no construction is proposed; therefore, there would be no effect on air quality.
Biology	Construction or land alterations are not proposed as part of the Proposed Action. The transferred water would be used for existing agricultural purposes and would not be used to place untilled or native lands into production, or to convert lands that have been fallowed or untilled for three or more years. There would be no impacts or any effect on any listed or proposed threatened and endangered species pursuant to the Endangered Species Act and no impacts to biological resources.
Cultural	There would be no impacts to cultural resources as a result of implementing the Proposed Action. No new construction or ground disturbing activities would occur. Reclamation has determined that these activities have no potential to cause effects to historic properties pursuant to 36 CFR Part 800.3(a)(1).
Energy	The Proposed Action does not include construction of new facilities or modification to existing facilities. While pumping would be necessary to deliver water from one location to the next, no additional electrical production beyond baseline conditions would occur.
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.
Geology and Soils	The Proposed Action does not include any grading or earthmoving activities. There would be no impacts to geological or soil resources.
Greenhouse Gas Emissions	The Proposed Action does not include construction of new facilities or modification to existing facilities. While pumping would be necessary to deliver water from one location to the next, no additional electrical production beyond baseline conditions would occur.
Hazards and Hazardous Materials	The Proposed Action does not include construction or land alteration and there would be no transportation or disposal of hazardous materials. Hazards and hazardous material impacts would not occur.
Hydrology and Water Quality	The Proposed Action consists of moving previously conserved water through existing facilities. There would be no impacts to the surrounding hydrology or water quality.
Indian Sacred Sites	The Proposed Action would not limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or affect the physical integrity of such sacred sites. There would be no impacts to Indian sacred sites as a result of the Proposed Action.

Resources	Reason Eliminated
Indian Trust Assets	The Proposed Action would not impact Indian Trust Assets as there are none in the Proposed Action area.
Land Use and Planning	There would be no changes to land uses or conflict with any land use plan, policy, or regulation. No land conversion would take place in the participating districts as the water transferred is intended to replace depleted supplies, not increase existing agricultural development. Water would not be provided to lands that have not been historically cultivated. The Proposed Action would not impact land use.
Mineral Resources	The Proposed Action would not result in significant impacts associated with the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, considering there would be no construction or earthmoving activities associated with implementation. There would be no impact.
Noise	The Proposed Action would not change the existing baseline noise of water flowing through the existing conveyance systems. Noise levels would not increase due to the Proposed Action.
Population and Housing	The Proposed Action would utilize existing water conveyance facilities and would not propose any new construction. The Proposed Action would improve the reliability of the water supply to the existing agricultural operations of water transfer participants and reduce groundwater pumping due to the quantity of surface water made available as a result of the conservation. There would be no impacts to local populations or housing.
Public Services	The Proposed Action would utilize existing water conveyance and pumping facilities to transfer the water. There would not be an additional need for public services. There would be no impact.
Recreation	The Proposed Action does not include recreational facilities. There would be no impact to nearby recreation.
Transportation	Action implementation of the Project would not increase the demand for any changes to congestion management programs or interfere with existing level of service standards during the operational phase. There would be no impact to transportation.
Tribal Cultural Resources	The proposed Action does not include construction or earthwork activities and no landmarks or building would be altered. Only existing facilities would be used to transport conserved water to the participants. There would be no impacts to Tribal resources.
Utilities and Service Systems	The Proposed Action would not generate wastewater or solid waste, expand water entitlements, or require additional electric power, natural gas, or other utilities. Water would continue to move through existing facilities. There would be no impact to utilities and service systems.
Wildfire	There would be no activities that would cause or exacerbate wildfire risk. There would be no impacts as a result of the Proposed Action.

3.3 CEQA Mandatory Findings of Significance

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of 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?	☐	☐	☐	☒

a): The Proposed Action would not have the potential to degrade the quality of the environment or have a direct or indirect impact to plant or wildlife species. The transfer of water to the participants would occur within existing facilities. Conserved water from previous wet years would be utilized and provided to existing agricultural farmers. There would be no impacts.

b): The Proposed Action would not have any short-term or long-term effects. Water would be transferred through existing facilities and would not require any new construction or new equipment. Excess water supplies would come from aggressive conservation practices and the use of reclaimed water to meet the current and future water demands and provided to historically cultivated farmland. There would be no impacts.

c): The Proposed Action would not have any environmental effects or cause substantial direct or indirect adverse effects on human beings. There would be no impacts.

4 Consultation and Coordination

4.1 Agencies and Persons Consulted

Reclamation and Patterson are consulting and coordinating with the California Department of Water Resources, Kern County Water Agency, South Valley Authority, the Participating Districts, and Pleasant Valley in the preparation of this EA/IS.

4.2 Public Involvement

Reclamation intends to provide the public with an opportunity to comment on the Draft EA during a 30-day public review period.

Patterson intends to provide the public with an opportunity to comment on the Draft EA/IS-ND as a joint document during a 30-day public review period pursuant to the California Environmental Quality Act Guidelines Section 15022 (Public Resources Code Section 210031)

5 Preparers and Reviewers

5.1 Bureau of Reclamation

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6 References

Reclamation (Bureau of Reclamation). 2015. Warren Act Contracts for Banta-Carbona Irrigation District, Byron-Bethany Irrigation District, and Patterson Irrigation District (FONSI/EA-14-021). South-Central California Area Office. Website:
https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=20221.