PUBLIC REVIEW DRAFT

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

FOR THE

SANTA NELLA / VOLTA WATER SUPPLY AND BLENDING PROJECT

in the communities of Santa Nella and Volta
Merced County, CA

February 17, 2017

Prepared for:

Santa Nella County Water District
12931 S Hwy 33
Santa Nella, CA 95322

Prepared by:

BaseCamp Environmental, Inc.
115 S. School Street, Suite 14
Lodi, CA 95240
209-224-8213

BaseCamp Environmental

SANTA NELLA COUNTY WATER DISTRICT
12931 State Highway 33
Santa Nella, CA 95322
Attn: Amy Montgomery, General Manager

NOTICE OF INTENT TO ADOPT MITIGATED NEGATIVE DECLARATION AND NOTICE OF PUBLIC MEETING

Notice is hereby given that the Santa Nella County Water District (Water District) has prepared an Initial Study (IS) of environmental effects and intends to adopt a Mitigated Negative Declaration (MND) for the Santa Nella/Volta Water System Improvement Project in Merced County, California. The Water District is the Lead Agency for this project under the California Environmental Quality Act (CEQA).

The project involves construction of one new potable water supply well and treatment system adjacent to the community of Volta, 5.0 miles of pipeline connecting the well to the existing Volta and Santa Nella water systems, and increased storage and pumping facilities in Santa Nella. The Water District and the Volta Community Services District would be consolidated as a part of the project. A more detailed project description is provided in the Initial Study.

The IS/MND analyzed the potential environmental effects of the project in the environmental issue areas specified in CEQA and the State CEQA Guidelines. On the basis of this analysis, the IS/MND finds that the project will not involve any significant environmental effects, provided that the mitigation measures described in the IS/MND are implemented. The project proponent has agreed to the mitigation measures, and these measures will be included in a Mitigation Monitoring/Reporting Plan to be adopted by the Water District in conjunction with the IS/MND and approval of the project. There are no sites identified under Section 65962.5 of the Government Code located on or near the project site.

Copies of the IS/MND are available for public review at the Santa Nella County Water District at the address shown above, at the Santa Nella Branch Library at 29188 West Centinella Avenue in Santa Nella, and at the Water District's website: www.sncwd.com. The Water District will accept public and agency comments on the IS/MND during a 30-day review period that will begin on February 17, 2017 and end on March 20, 2017. Comments may be submitted by mail or e-mail to the Water District at the address shown above or to amontgomery@sncwd.com.

In addition, notice is hereby given that the Water District will consider adoption of the IS/MND and the Mitigation Monitoring/Reporting Plan for the project at a public meeting scheduled for April 13, 2017 at 1:00 pm at 12931 State Highway 33, Santa Nella, CA 95322.

Amy Montgomery, General Manager

February 17, 2017

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All appendices are available for review at the SNCWD offices at 12931 S Highway 33, Santa Nella, and for on-line review and download at www.sncwd.com.

LIST OF ACRONYMS
USED IN THIS DOCUMENT

AB	Assembly Bill
ACOE	U.S. Army Corps of Engineers
ARB	California Air Resources Board
CalEEMod	California Emissions Estimator Model
CDFW	California Department Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CO	carbon monoxide
CO2	carbon dioxide
CSD	Community Services District
dB	decibel
dBA	A-weighted decibels
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
GAMAQI	Guide for Assessing and Mitigating Air Quality Impacts (SJVAPCD)
GHG	greenhouse gas
gpd	gallons per day
IS/MND	Initial Study/Mitigated Negative Declaration
L_{eq}	equivalent continuous sound level
L_{max}	maximum noise level
mgd	million gallons per day
MRZ	Mineral Resource Zone
NOx	nitrogen oxide
PM_{10}	particulate matter 10 microns or less in diameter
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
RCEM	Road Construction Emissions Model
ROG	reactive organic gas
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SNCWD	Santa Nella County Water District
SJCOG	San Joaquin Council of Governments
SJVAPCD	San Joaquin Valley Air Pollution Control District
SRF	State Revolving Fund
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board

TAC	toxic air contaminant
WDR	Waste Discharge Requirements

NEGATIVE DECLARATION

A. General Project Information

Project Title:	Santa Nella / Volta Water Systems Improvements Project
Lead Agency Name and Address:	Santa Nella County Water District (SNCWD) 12931 South Highway 33 Santa Nella, CA 95322
Contact Person and Phone Number:	Amy Montgomery, General Manager (209) 826-0920
Project Location:	Communities of Santa Nella and Volta, Merced County
Project Sponsor Name and Address:	Santa Nella County Water District 12931 South Highway 33 Santa Nella, CA 95322
General Plan Designation:	Primarily agricultural designations along project alignment
Zoning:	Primarily agricultural zoning along project alignment, no zoning within public rights-of-way
Description of Project:	Santa Nella and Volta are served by existing water systems, supplied from groundwater wells; Santa Nella is also supplied with treated surface water from the San Luis Canal. Each system requires improvement to maintain drinking water standards. The smaller Volta system is unable to make improvements and continue in operation. As a part of the project, the two districts will be consolidated; the combined district will be operated and managed by SNCWD. The project includes construction of one new potable water well, tank and pumping equipment adjacent to the community of Volta. The new facilities would be connected to new storage and blending facilities in Santa Nella to the west and the existing Volta water distribution system to the east via approximately 5.0 miles of pipeline. The existing Volta CSD well will be decommissioned. Pipeline will be eight-inch PVC placed in trenches within public right-of-way along Henry Miller Road and Ingomar Grade. A pipeline will cross I-5, SR 33 and two CCID canals using directional drilling.
Surrounding Land Uses and Setting:	The project area is predominantly in intensive agricultural use. The community of Santa Nella includes highway services commercial uses near I-5, residential areas and

	other commercial uses. The Volta community consists primarily of residential areas and a school. The Morningstar food processing facility is located immediately east of Volta Road.
Other Public Agencies Whose Approval is Required:	Caltrans and Merced County (highway and road encroachment permits), Merced County LAFCO (SNCWD and Volta CSD Consolidation), Central California Irrigation District (canal right-of-way encroachment)

B. Environmental Factors Potentially Affected

The environmental factors checked below may be significantly affected by this project, involving at least one impact that is a "Potentially Significant Impact" prior to mitigation. Mitigation measures that would avoid potential effects or reduce them to a less than significant level have been prescribed for each of these effects, as described in the checklist and narrative on the following pages, and in the Summary Table at the end of Chapter 1.0. The project does not involve any significant effects that cannot be reduced to a less than significant level with mitigation measures.

	Aesthetics		Agriculture and Forestry Resources		Air Quality
√	Biological Resources	√	Cultural Resources	√	Geology/Soils
	Greenhouse Gas Emissions	√	Hazards & Hazardous Materials	√	Hydrology/Water Quality
	Land Use/Planning		Mineral Resources	√	Noise
	Population/Housing		Public Services		Recreation
	Transportation/Traffic		Utilities/Service Systems	√	Mandatory Findings of Significance

C. Lead Agency 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 and/or mitigation measures that would reduce potential effects to a less than significant level have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. All applicable mitigation measures are shown in the Summary Table (Table 1-1) at the end of Chapter 1.0.

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.

SANTA NELLA COUNTY WATER DISTRICT

Amy Montgomery, General Manager

2/16/17
Date

1.0 INTRODUCTION

1.1 Project Brief

This document is an Initial Study/Mitigated Negative Declaration (IS/MND) for the Santa Nella / Volta Water Systems Improvement Project (the "project"). The project is located in the unincorporated area of Merced County on lands within and between the rural communities of Santa Nella and Volta (Figures 1-1 through 1-4). The IS/MND has been prepared in compliance with the requirements of the California Environmental Quality Act (CEQA). For the purposes of CEQA, the Santa Nella County Water District (SNCWD) is the Lead Agency for the project.

Both Santa Nella and Volta are served by existing public water systems, each of which require improvement to maintain compliance with State drinking water standards. The much-smaller Volta system, operated by the Volta Community Services District (CSD) has difficulty operating and maintaining its existing system and is unable to make necessary improvements to remain in compliance with water quality standards. As a part of the project, the Volta CSD will be dissolved and its territory annexed into the SNCWD. Future potable water service to users in the Volta area will be provided by SNCWD. Further background information is provided in Section 1.3.

The project involves construction of one new source water supply well adjacent to the community of Volta. Water from the new well would be transported west to proposed storage and blending facilities in Santa Nella and east to the existing Volta water distribution system. Water conveyance would be in eight-inch PVC pipelines to be placed in trenches within undeveloped County road right-of-way adjacent to Henry Miller Avenue and Volta Road. The project would include the construction of two 750,000-gallon storage and blending tanks and new booster pump facilities on the site of the SNCWD offices in Santa Nella.

NV5 Engineering prepared a a Project Engineering Report (PER) evaluating the existing water systems, improvement alternatives and recommendations, including the Selected Project, which is described in brief above. SNCWD District Engineer Black Water Consulting Engineers is preparing an addendum to the PER that addresses the consolidation of the SNCWD and Volta water systems. The combined project is the subject of the detailed environmental analysis in this IS/MND. The NV5 report is shown in Appendix A to this document.

1.2 Purpose of Initial Study

CEQA requires that public agencies document and consider the potential environmental effects of the agency's actions that meet CEQA's definition of a "project." Briefly, a "project" is an action that has the potential to result in direct or indirect physical changes in the environment. A project includes the agency's direct activities as well as activities by others that involve public agency approvals or funding. Guidelines for an agency's implementation of CEQA are found in the "CEQA Guidelines" (Title 14, Chapter 3 of the California Code of Regulations).

Provided that a project is not exempt from CEQA, the first step in the agency's consideration of its potential environmental effects is the preparation of an Initial Study. The purpose of an Initial Study is to determine whether the project would involve "significant" environmental effects as

defined by CEQA and to describe feasible mitigation measures that would avoid significant effects or reduce them to a less than significant level. In the event that the Initial Study does not identify significant effects, or identifies mitigation measures that would reduce all of the significant effects of the project to a less than significant level, the agency prepares a Negative Declaration. If this is not the case – that is, if the project would involve significant effects that cannot be readily mitigated - the agency must prepare an Environmental Impact Report (EIR). The agency may also decide to proceed directly with the preparation of an EIR without preparation of an Initial Study.

The Santa Nella / Volta project is a "project" as defined by CEQA and is not exempt from CEQA consideration. The SNCWD has determined that the project involves the potential for significant environmental effects and required preparation of this Initial Study. The Initial Study describes the proposed project and the environmental setting; it discusses the potential environmental effects of the project and identifies feasible mitigation measures that would reduce the potentially significant environmental effects of the project to a less than significant level. The Initial Study considers the project's potential for significant environmental effects in the following subject areas:

Aesthetics
Agricultural Resources
Air Quality
Biological Resources
Cultural Resources
Geology and Soils
Greenhouse Gases
Hazards and Hazardous Materials
Hydrology and Water Quality
Land Use and Planning
Mineral Resources
Noise
Population and Housing
Public Services
Recreation
Transportation/Traffic
Utilities and Service Systems
Mandatory Findings of Significance

The Initial Study concludes that the project would have significant environmental effects, but that all of these effects would be reduced to a less than significant level with recommended mitigation measures. As a result, the SNCWD has prepared a Mitigated Negative Declaration and notified the public of the District's intent to adopt the IS/MND. As of the distribution of the IS/MND for public review, the District has accepted all of the recommended mitigation measures. The time available for comment on the IS/MND is shown in the Notice of Intent.

1.3 Project Background

Santa Nella and the SNCWD

The SNCWD owns and operates the public water system in the unincorporated community of Santa Nella in western Merced County. The water system serves approximately 722 service

connections of which 652 are currently active. Water supply is obtained from two sources: the California Aqueduct and Well #1.

Water from the California Aqueduct is treated at the SNCWD Surface Water Treatment Plant (SWTP) before delivery to customers located within Central Valley Project (CVP) service areas. The SWTP is located adjacent to the San Luis Canal component of the California Aqueduct, adjacent to State Route (SR) 33. The SWTP capacity is 0.91 million gallons per day (mgd). The package treatment units have been in service for more than 20 years.

SNCWD Well #1 supplies water for areas within SNCWD boundaries that cannot receive water from the SWTP. Well #1 was rehabilitated in 2011 to restore the capacity of 300 gallons per minute (gpm); however, because of age and condition, the pump is operated at only 200 gpm, and for the purposes of this project is assumed to produce 150 gpm. Well #1 has total dissolved solids (TDS) concentrations typically between 850 and 1,100 milligrams per liter (mg/L). Water from Well #1 is chlorinated before delivery to consumers. The SNCWD distribution system consists of 4-inch to 30-inch water pipelines. Storage is provided by one storage tank with a total capacity of 355,000 gallons. Proposed improvements are needed to: 1) increase water supply reliability; 2) achieve compliance with the California Maximum Contaminant Level (MCL) for total trihalomethanes (TTHM); and 3) correct a storage capacity deficiency.

Volta and the Volta CSD

The community of Volta is a census designated-place in unincorporated Merced County approximately 5 miles due east of Santa Nella and Interstate 5 on Henry Miller Avenue. Potable water in Volta is provided to approximately 44 connections by the Volta Community Services District (CSD), a special district governed by a 5-member Board of Directors. The Volta water system consists of single groundwater well located at the south end of the community adjacent to Volta Road. Water is distributed throughout Volta through a network of 6-inch PVC pipes. Currently 44 customers are connected to the water system.

The Volta well water contains hexavalent chromium at concentrations that exceed the current State Maximum Contaminant Level (MCL) of 10 ug/L (ppb). State law requires that public water systems that exceed the adopted MCL to comply by 2020. The CSD is working toward compliance by consolidating with the neighboring SNCWD as part of the proposed project. Water from the new SNCWD Well #2 will replace the existing Volta supply to achieve compliance with the hexavalent chromium MCL.

DWSRF Funding and NEPA

The SNCWD is working with the State Water Resources Control Board (SWRCB) Drinking Water State Revolving Fund (DWSRF) to provide funding for the project, which will include the above-described project components as well as various improvements to the Volta system to bring it up to SNCWD standards. The DWSRF is funded in part with federal funds. As a result, the project will also be subject to review under the National Environmental Policy Act (NEPA).

1.4 Environmental Evaluation Checklist Terminology

The project's potential environmental effects are evaluated in the Environmental Evaluation Checklist shown in Chapter 3.0. The checklist includes a list of environmental considerations against which the project is evaluated. For each question, the Water District determines whether

the project would involve: 1) No Impact, 2) a Less Than Significant Impact, 3) a Less Than Significant Impact With Mitigation Incorporated, or 4) a Potentially Significant Impact.

> A Potentially Significant Impact occurs when there is substantial evidence that the project would involve a substantial adverse change to the physical environment, i.e., that the environmental effect may be significant, and mitigation measures have not been defined that would reduce the impact to a less than significant level. If there are one or more Potentially Significant Impact entries in the Initial Study, an EIR is required.
>
> A Less Than Significant Impact occurs when the project would involve effects on a particular resource, but the project would not involve a substantial adverse change to the physical environment, and no mitigation measures are required.
>
> An environmental effect that is Less Than Significant With Mitigation Incorporated is a Potentially Significant Impact that can be avoided or reduced to a less than significant level with the application of mitigation measures.
>
> A determination of No Impact is self-explanatory.

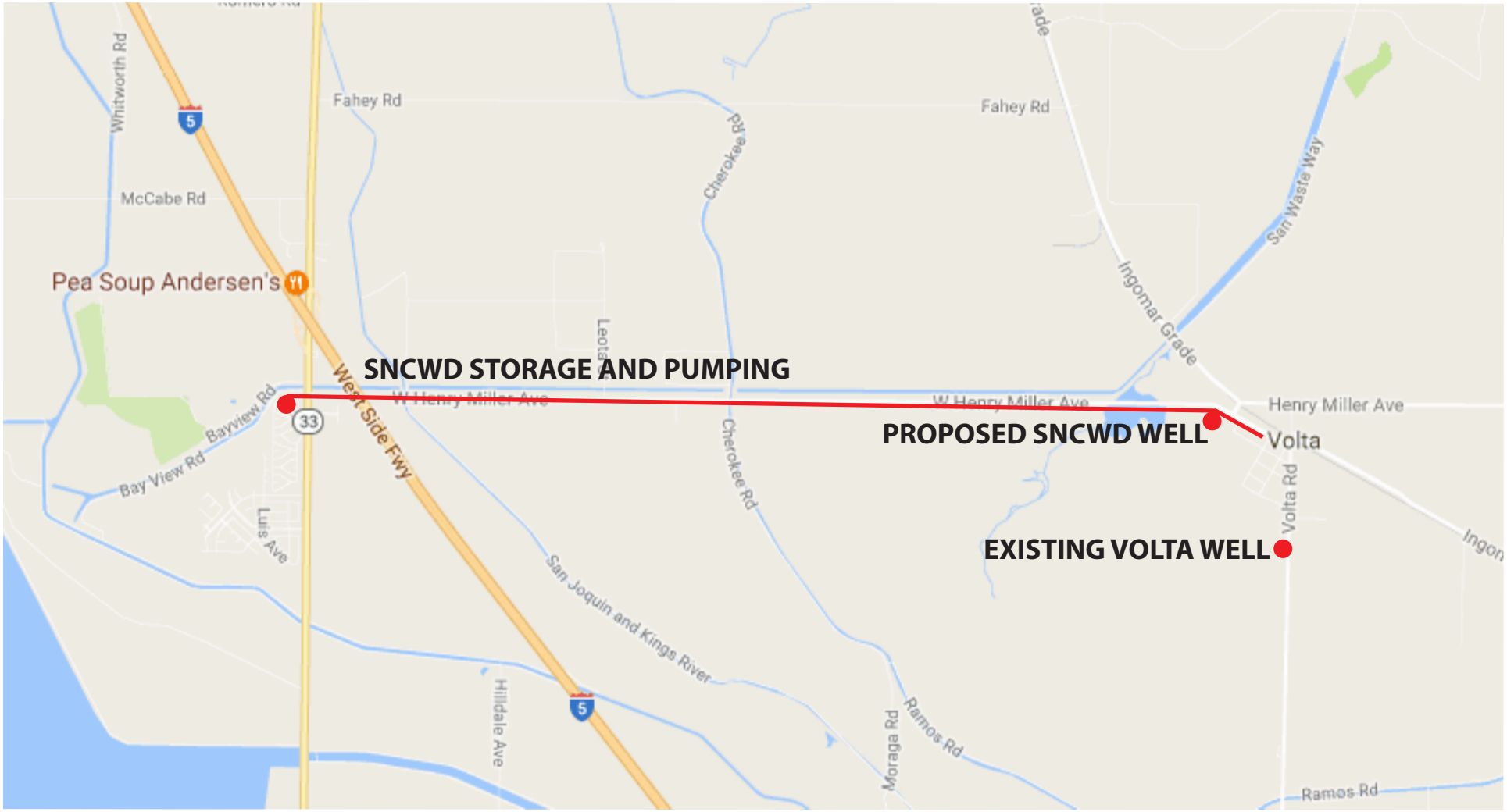
This IS/MND identifies several potentially significant environmental effects related to the project and prescribes feasible mitigation measures for those effects. Some effects are also "mitigated" by provisions of law and standards of practice related to environmental protection. Such provisions are considered in the environmental impact analysis. Mitigation measures that are not already established in law and practice are specifically identified in this document as needed to reduce potential environmental effects to a less than significant level.

1.5 Summary of Environmental Effects and Mitigation Measures

The following pages contain Table 1-1, Summary of Impacts and Mitigation Measures. The table summarizes the results of the Environmental Checklist Form and associated narrative discussion shown in Chapter 3.0.

The potential environmental impacts of the proposed project are summarized in the left-most column of this table. The level of significance of each impact is indicated in the second column. Mitigation measures proposed to minimize the impacts are shown in the third column, and the significance of the impact, after mitigation measures are applied, is shown in the fourth column.

Figure 1-1
REGIONAL MAP



BaseCamp Environmental

Figure 1-2
STREET MAP

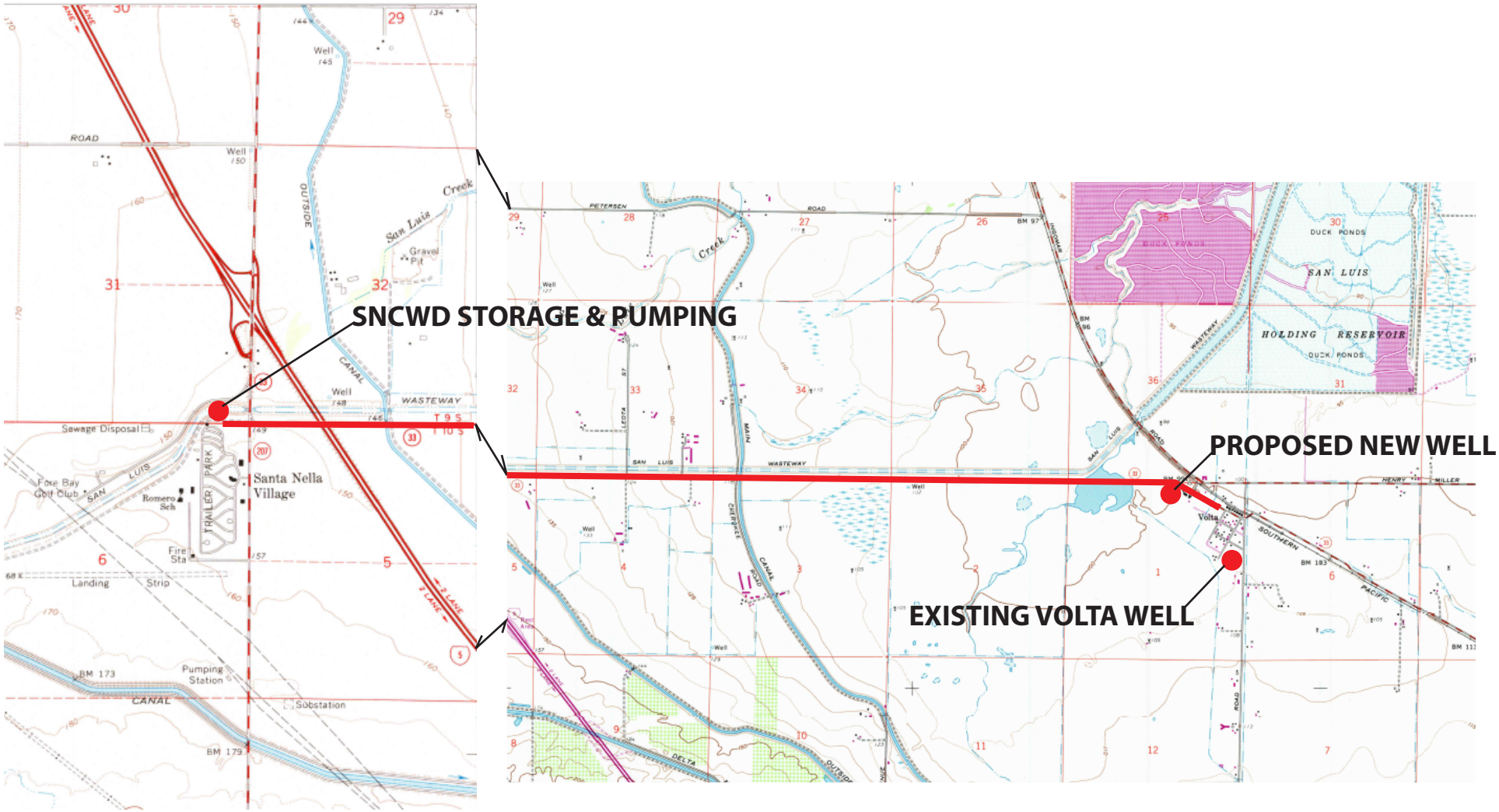


Figure 1-3
USGS MAP

Figure 1-4
AERIAL PHOTO

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
3.1 AESTHETICS			
a) Scenic Vistas	LS	None required	
b) Scenic Routes and Resources	LS	None required	
c) Visual Character and Quality	LS	None required	
d) Light and Glare	LS	None required	
3.2 AGRICULTURE AND FORESTRY RESOURCES			
a) Agricultural Land Conversion	NI	None required	
b) Agricultural Zoning and Williamson Act	NI	None required	
c, d) Forest Land Conversion and Zoning	NI	None required	
e) Indirect Conversion of Farmland and Forest Land	NI	None required	
3.3 AIR QUALITY			
a) Air Quality Plan Consistency	NI	None required	
b) Violation of Air Quality Standards	LS	None required	LS
c) Cumulative Emissions	NI	None required	
d) Exposure of Sensitive Receptors	LS	None required	LS
e) Odors	NI	None required	

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
3.4 BIOLOGICAL RESOURCES			
a) Special-Status Species	PS	BIO-1: Pre-construction surveys for nesting Swainson's hawks within 0.5 miles of the project site are recommended if construction commences between March 1 and September 15. If active nests are found, a qualified biologist should determine the need (if any) for temporal restrictions on construction. The determination should be pursuant to criteria set forth by CDFW (CDFG, 1994). BIO-2: Pre-construction surveys for burrowing owls within 250 feet of the site are recommended if construction commences between February 1 and August 31. If occupied burrows are found, a qualified biologist should determine the need (if any) for temporal restrictions on construction. The determination should be pursuant to criteria set forth by CDFW (CDFG, 2012).	LS
b) Riparian and Other Sensitive Habitats	NI	None required	
c) Wetlands	NI	None required	
d) Fish and Wildlife Movement	PS	BIO-3: On-site trees, shrubs, and grasslands could be used by birds protected by the Migratory Bird Treaty Act of 1918 and/or Fish and Game Code of California. If construction commences during the general avian nesting season (March 1 through July 31), a pre-construction survey for nesting birds is recommended.	LS

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		If active nests are found, work in the vicinity of the nest should be delayed until the young fledge.	
e) Local Biological Requirements	NI	None required	
f) Conflict with Habitat Conservation Plans	NI	None required	
3.5 CULTURAL RESOURCES			
a, b) Historical and Archaeological Resources	PS	CULT-1: If any subsurface cultural or paleontological resources are encountered during construction of the project, all construction activities in the vicinity of the encounter shall be halted until a qualified archaeologist, or paleontologist as appropriate, can examine these materials, make a determination of their significance and, if significant, recommend further mitigation measures that would reduce potential effects to a less than significant; such measures could include 1) preservation in place or 2) excavation, recovery and curation by qualified professionals. The SNCWD shall be responsible for retaining qualified professionals, implementing recommended mitigation measures and documenting mitigation efforts in a written report, consistent with the requirements of the CEQA Guidelines.	LS
c) Paleontological Resources and Unique Geologic Features	PS	Mitigation Measure CULT-1.	LS
d) Human Burials	LS	None required	

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
3.6 GEOLOGY AND SOILS			
a-1) Fault Rupture Hazards	NI	None required	
a-2, 3) Seismic Hazards	PS	GEO-1: A site-specific, design-level soils study shall be completed for the project site during project design. The study shall include an evaluation of liquefaction potential and other geologic hazards in the construction area and identify appropriate means to minimize or avoid damage from such hazards. In addition, the study shall identify the presence of expansive soils in the construction area and recommend design and construction features to reduce the potential impact of these soils on project facilities. Design recommendations included in the study shall be implemented during project design and construction.	LS
a-4) Landslides	NI	None required	
b) Soil Erosion	PS	Mitigation Measure HYD-1	LS
c) Geologic Instability	PS	Mitigation Measure GEO-1	LS
d) Expansive Soils	PS	Mitigation Measure GEO-1.	LS
e) Adequacy of Soils for Wastewater Disposal	NI	None required	
3.7 GREENHOUSE GAS EMISSIONS			
a) Project GHG Emissions	LS	None required	
b) Consistency with GHG Reduction Plans	NI	None required	

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
3.8 HAZARDS AND HAZARDOUS MATERIALS			
a) Hazardous Material Transport, Use and Storage	LS	None required	
b, c) Release of Hazardous Materials	NI	None required	
d) Hazardous Materials Sites	NI	None required	
e, f) Airport and Airstrip Operations	NI	None required	
g) Emergency Response and Evacuation	PS	HAZ-1 Prior to the start of project construction along roadways, the contractor shall develop and implement a Traffic Control Plan. The Traffic Control Plan shall include such items as traffic control requirements, resident notification of access closure, and daily access restoration. The contractor shall specify dates and times of road closures or restrictions, if any, and shall ensure that adequate access will be provided for emergency vehicles. The Traffic Control Plan shall be reviewed and approved by the County Department of Public Works and shall be coordinated with the Merced County Sheriff's Department and the Merced County Fire District.	LS
h) Wildland Fire Hazards	NI	None required	
3.9 HYDROLOGY AND WATER QUALITY			
a, f) Surface Water Quality	PS	HYD-1: Prior to construction, SNCWD or its contractor shall obtain a WDID number from the RWQCB prepare and implement a SWPPP in compliance with the General Permit. The SWPPP shall include best management practices that will be utilized to minimize	LS

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		erosion potential and conveyance of eroded soils off of the project site or into on-site surface water features. Best management practices included in the SWPPP shall be included as contractor work specifications.	
b) Groundwater Supplies	NI	None required	
c, d, e) Drainage Patterns and Runoff	NI	None required	
g, h) Flooding Hazards	NI	None required	
i) Dam and Levee Failure Hazards	NI	None required	
j) Seiche, Tsunami and Mudflow Hazards	NI	None required	
3.10 LAND USE AND PLANNING			
a) Division of Established Communities	NI	None required	
b) Conflict with Applicable Plans, Policies and Regulations	NI	None required	
c) Conflict with Habitat Conservation Plans	LS	None required	
3.11 MINERAL RESOURCES			
a, b) Loss of Mineral Resource Availability	NI	None required	
3.12 NOISE			
a) Exposure to Noise Exceeding Local Standards	PS	NOISE-1: All equipment used on the construction site shall be fitted with mufflers in accordance with manufacturers' specifications. Mufflers shall be installed on the equipment at all times on the	LS

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		construction site. NOISE-2: Proposed pumping equipment shall be selected and installed so that Merced County noise standards for residences and schools are not exceeded.	
b) Groundborne Vibrations	LS	None required	
c) Permanent Increase in Ambient Noise	NI	None required	
d) Temporary or Periodic Increase in Ambient Noise	PS	Mitigation Measure NOISE-1.	LS
e, f) Exposure to Airport/Airstrip Noise	NI	None required	
3.13 POPULATION AND HOUSING			
a) Population Growth Inducement	LS	None required	
b, c) Displacement of Housing and People	NI	None required	
3.14 PUBLIC SERVICES			
a) Fire Protection	LS	None required	
b) Police Protection	NI	None required	
c) Schools	NI	None required	
d, e) Parks and Other Public Facilities	NI	None required	
3.15 RECREATION			
a, b) Recreational Facilities	NI	None required	

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
3.16 TRANSPORTATION/TRAFFIC			
a) Conflict with Transportation Plans, Ordinances and Policies	NI	None required	
b) Conflict With Congestion Management Program	NI	None required	
c) Air Traffic Patterns	NI	None required	
d) Traffic Hazards	NI	None required	
e) Emergency Access	PS	Mitigation Measure HAZ-1.	LS
f) Conflict with Non-vehicular Transportation Plans	LS	None required	
3.17 UTILITIES AND SERVICE SYSTEMS			
a, e) Wastewater Systems	NI	None required	
b, d) Water Systems and Supply	NI	None required	
c) Stormwater Systems	NI	None required	
f, g) Solid Waste Services	NI	None required	
3.18 MANDATORY FINDINGS OF SIGNIFICANCE			
a) Findings on Biological and Cultural Resources	PS	Mitigation measures in Sections 3.4 and 3.5 above.	LS
b) Findings on Individually Limited but Cumulatively Considerable Impacts	NI	None required	
c) Findings on Adverse Effects on Human Beings	NI	None required	

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

2.0 PROJECT DESCRIPTION

This chapter of the Initial Study provides a brief summary description of the project followed by information on the project setting and background and detailed descriptions of the location and physical elements of the project.

2.1 Project Brief

This document is an Initial Study/Mitigated Negative Declaration (IS/MND) for the Santa Nella / Volta Water System Improvements Project (the "project"). The project is located in the unincorporated area of Merced County on lands within and between the rural communities of Santa Nella and Volta (Chapter 1.0, Figures 1-1 through 1-4). The IS/MND has been prepared in compliance with the requirements of the California Environmental Quality Act (CEQA). For the purposes of CEQA, the Santa Nella County Water District (SNCWD) is the Lead Agency for the project.

Both Santa Nella and Volta are served by existing public water systems, each of which require improvements in order to maintain compliance with State drinking water standards. The much-smaller Volta system has difficulty operating and maintaining its existing system and is unable to make necessary improvements to remain in compliance with water quality standards. As a part of the project, the Volta Community Services District (CSD) will be dissolved and its territory annexed into the SNCWD. Future potable water service to users in the Volta area will be provided by SNCWD. Further background information is provided in Section 1.3.

The project involves construction of one new source water supply well adjacent to the community of Volta. Water from the new well would be transported west to proposed storage and blending facilities in Santa Nella and east to the existing Volta water distribution system. Water conveyance would be in eight-inch PVC or ABS pipelines to be placed in trenches within undeveloped County road right-of-way adjacent to Henry Miller Avenue and Volta Road. The project would include the construction of two 750,000-gallon storage and blending tanks and new booster pump facilities on the site of the SNCWD offices in Santa Nella.

NV5 Engineering prepared a a Project Engineering Report (PER) evaluating the existing water systems, improvement alternatives and recommendations, including the Selected Project, which is described in brief above. SNCWD District Engineer Black Water Consulting Engineers prepared an addendum to the PER that addresses the consolidation of the SNCWD and Volta water systems. The combined project is the subject of the detailed environmental analysis in this IS/MND. The NV5 report is provided in Appendix A to this document.

2.2 Project Location

The project area is located in the western Merced County unincorporated area, partially within the rural communities of Santa Nella and Volta. The majority of the project site is located along the right-of-way of Henry Miller Avenue, a County road joining the two communities, primarily along the south side of Henry Miller Avenue. Santa Nella is located at the intersection of I-5 and State Route (SR) 33.

Proposed water storage and blending facilities are located at the western end of the proposed pipeline on the 2-acre SNCWD headquarters site on South Highway 33. This site includes the District's current water treatment, storage and pumping facilities. The District's existing well (Well #1) is located immediately south of Henry Miller Avenue, approximately 0.2 miles east of I-5. The new proposed well site (Well #2) is located south of Henry Miller Avenue and immediately west of Volta, approximately 4.3 miles east of I-5. The existing Volta well and storage tank site is located further to the southeast, adjacent to Volta Road in southern Volta. These locations are shown on Figure 1-2, 1-3 and 1-4 in Chapter 1.0.

The proposed project location is shown on the San Luis Dam and Volta USGS 7-1/2 minute quadrangle maps. The principal facilities are located by township and range, latitude and longitude as follows:

Facility	Section	Township	Range	Latitude	Longitude
SNCWD Headquarters	31	9S	9E	37.1009	-121.0175
SNCWD Well #1	5	10S	9E	37.1005	-121.0073
New Volta Well #2	1	10S	9E	37.0999	-120.9338
Existing Volta Well	1	10S	9E	37.0930	-120.9257

2.3 Project Objectives

The objective of the project is to improve water quality of the SNCWD and Volta CSD public water systems in order to comply with the applicable state drinking water quality standards and meet the maximum day demands of each system. Proposed improvements would reduce existing total trihalomethanes (TTHM) and hexavalent chromium levels within the districts to within State Maximum Contaminant Level (MCL) standards.

The Volta CSD will be consolidated into the SNCWD so as to ensure adequate ongoing maintenance, operations and reliability of the Volta area potable water system.

2.4 Project Details

The project involves improvements to the existing Santa Nella and Volta potable water systems. Proposed improvements would include the following new facilities:

Well #2, minimum 600-gpm, serving both communities through new pipelines

5.0 miles of 8-inch water trunk lines connecting Well #2 with the Santa Nella and Volta water distribution systems

Two (2) 750,000-gallon water storage tanks, blending and booster pump facilities at the SNCWD offices

New 200,000 gallon tank at the Volta site for emergency and fire storage.

Full destruction of the existing Volta well by filling the entire well depth with 10.3 sack cement to surface grade.

Install 44 water meters at the existing Volta service connections.

In conjunction with the proposed physical improvements, the Volta CSD will be consolidated with the SNWCD; the SNCWD will assume ownership and the operation and maintenance responsibility for the consolidated system. This element of the project is known as the Volta Consolidation.

Proposed Well

The project includes development of a new 600-gpm well (Well #2) at the proposed site in Volta (Figure 2-4). A schematic drawing of the proposed well is shown in Figure 2-5. In conjunction with 150 gpm contributed by the SNCWD existing Well #1, Well #2 will satisfy the District's maximum daily demand of 750 gpm, with the existing surface water treatment plant out of service. Equipment and accessories to be constructed at the Well #2 site will include: pump and motor; piping and valves; storage tank; sample taps; valves; level transducer; flow meter; air release/vacuum relief valve; pressure gauges; and provisions for installing and connecting chlorination equipment if needed. Well #2 and associated wellhead features will satisfy Merced County requirements, California Water Works Standards and California Well Standards.

Well #2 will be designed and constructed in accordance with the findings of a successful test well drilled at the proposed well site. The hydrogeology report for the test well showed no exceedence of primary MCLs, including the MCL for the constituent of concern in the well area, which is hexavalent chromium. There were no exceedences of secondary standards other than boron. Minimal drawdown was observed during pump testing; the hydrogeologist concluded that a production well would meet or exceed the 600 gpm design demand with minimal drawdown.

The design includes provisions for the addition of chlorination equipment in the future, if necessary.

Pipelines

The project will include 8-inch PVC water transmission pipelines that connect Well #2 with the proposed storage and blending facility in Santa Nella, and with the existing Volta water distribution system. Approximately 4.6 miles of pipeline will be needed between Well #2 and Santa Nella; an additional 0.4 miles will connect Well #2 to the Volta system.

With the exception of highway and canal crossings, the pipelines will be trenched in accordance with the typical section shown in Figure 2-1. The pipelines will be bedded on engineered gravel material, provided that native material is not suitable. Initial cover will be with engineered gravel material and the remainder of the minimum 36-inch cover material will be compacted native material. Excess excavated material will be disposed within the adjacent right-of-way.

The pipeline section between Well #2 and the SNCWD offices will require crossings of I-5, SR 33 and two CCID canals. The highway and canal crossings will be constructed using horizontal directional drilling (HDD) methods. Drilling equipment will be operated from an approximately 500 square foot surface area located within the existing County road right-of-way and along the proposed pipeline alignment, just outside the highway and canal rights-of-way to be crossed. HDD sections will be initiated at each crossing in an approximately 10 foot by 25 foot drilling pit and received at an exit pit of approximately the same size. HDD will typically include the extension of an initial pilot hole, then one pass to enlarge the hole and pull the pipeline through. Joints with the trenched section will be installed at the drilling and exit pit locations. Exact pit

locations and dimensions will be established by the contractor. Drilling depth under the State highways will be established in consultation with Caltrans; the canal crossing depth will be a minimum of 30 feet below the canal bottom. Pipeline crossings may need to be installed within casings.

Pipeline construction will be confined to the existing rights-of-way of Henry Miller Avenue and Ingomar Grade. The project is not expected to require any encroachment onto adjoining lands and involve impacts to agricultural lands, wetlands or other natural resources that may be located on these lands.

Water Storage, Blending And Pumping Facilities

The project will include a new water storage, blending and pumping facility located at the SNWCD site in Santa Nella (Figure 2-2). Water from Wells #1 and #2, and surface water from the California Aqueduct, will be routed in separate pipelines to the blending facility, then to the storage tanks. Storage facilities will include two interconnected 750,000-gallon tanks for a total of 1.5 million gallons, with bypass capability to permit maintenance and repair.

The SNCWD facilities will include a new 1,125-gpm booster pump installation to transmit blended water to the distribution system and maintain distribution system pressures of 40-75 pounds per square inch and required minimum fire flows of 3,000 gpm. The booster pump facility will include four variable-flow booster pumps, a hydropneumatic tank, valving and electrical controls.

Volta Consolidation

The existing Volta CSD will be consolidated with the SNCWD, in conjunction with the proposed physical improvements. The existing Volta water system will be acquired and operated by SNCWD. The agencies are discussing terms and are expected to enter into an interagency agreement governing the consolidation process.

As a result of the agreement, the Volta CSD will be dissolved and its territory annexed to SNCWD. The consolidation and dissolution would be conducted in accordance with the government organization and reorganization requirements of the Cortese-Knox-Hertzberg Act, administered by the Merced County Local Agency Formation Commission (LAFCO). If the parties cannot agree, however, the SWRCB has authority to process consolidations without going through the LAFCO process.

In order to consolidate the districts, the SNCWD would annex the Volta CSD territory. Since the annexation must be within the SNCWD Sphere of Influence, the SNCWD Sphere would be modified in parallel with the annexation. At the same time, the District's Municipal Service Review (MSR) will need to be updated.

2.5 Permits and Approvals

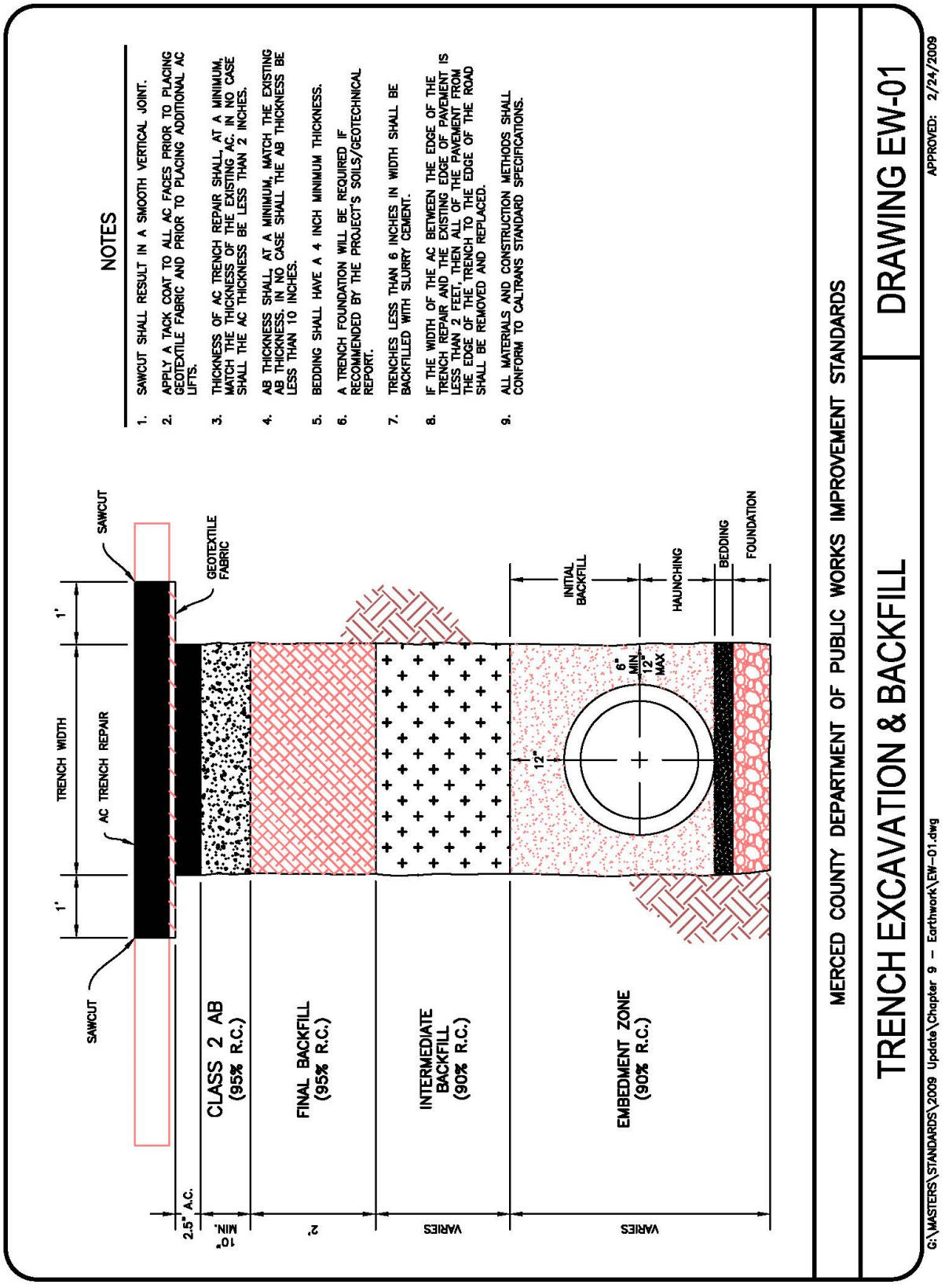
The SNCWD is the Lead Agency for this project for the purposes of CEQA. Principal discretionary permits and approvals would be granted by the SNCWD.

Proposed pipelines will cross SR 33, I-5, the CCID Outside Canal and the CCID Main Canal. These crossings are expected to be installed using directional drilling, as discussed above. Nonetheless, each crossing will require encroachment approval from the responsible agencies:

Facility	Agency	Approval
SR 33, I-5	Caltrans District 10	Encroachment Permit
Henry Miller Avenue, Ingomar Grade	Merced County	Encroachment Permit
Outside Canal, Main Canal	Central California Irrigation District	Encroachment Permit

The annexation of the VCSD, the modification of the SNCWD Sphere of Influence and the update of the SNWCD MSR will require the approval of the Merced County LAFCO.

It is anticipated that the project would be funded largely by the State Water Resources Control Board (SWRCB) through its Drinking Water State Revolving Fund (DWSRF) program. An application for DWSRF funding will be presented to the SWRCB, including an Environmental Package that evaluates the potential environmental impacts of the proposed project under CEQA and NEPA, along with a Technical Package and a Financial Security Package. The Environmental Package will include this Initial Study for purposes of compliance with CEQA and other information related to compliance with the National Environmental Policy Act (NEPA). The SWRCB must approve the application and a finalized agreement must be executed before funding is disbursed.



SOURCE: MERCED COUNTY

Figure 2-1
TYPICAL TRENCH SECTION

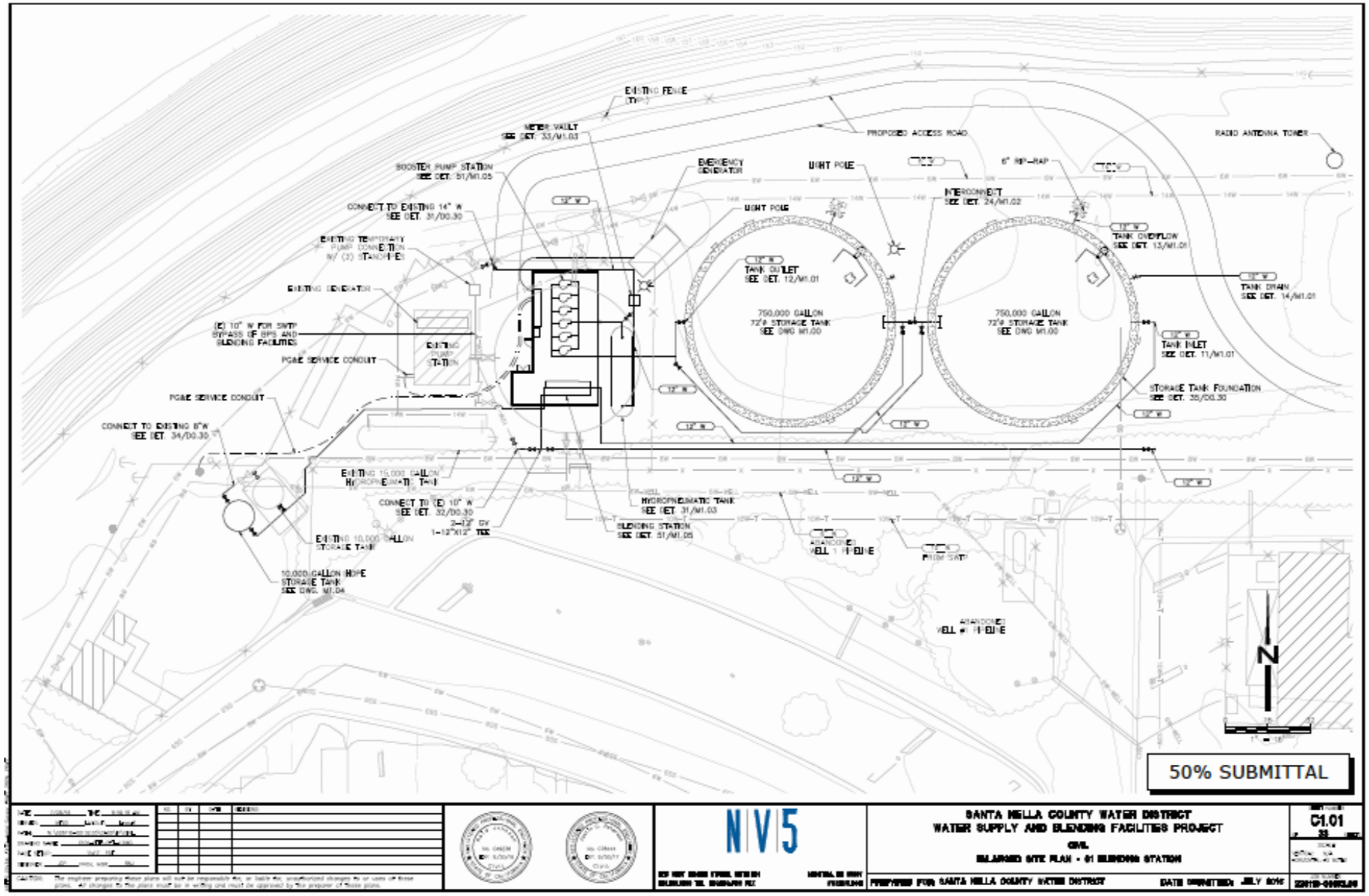


Figure 2-1
SNCWD FACILITIES

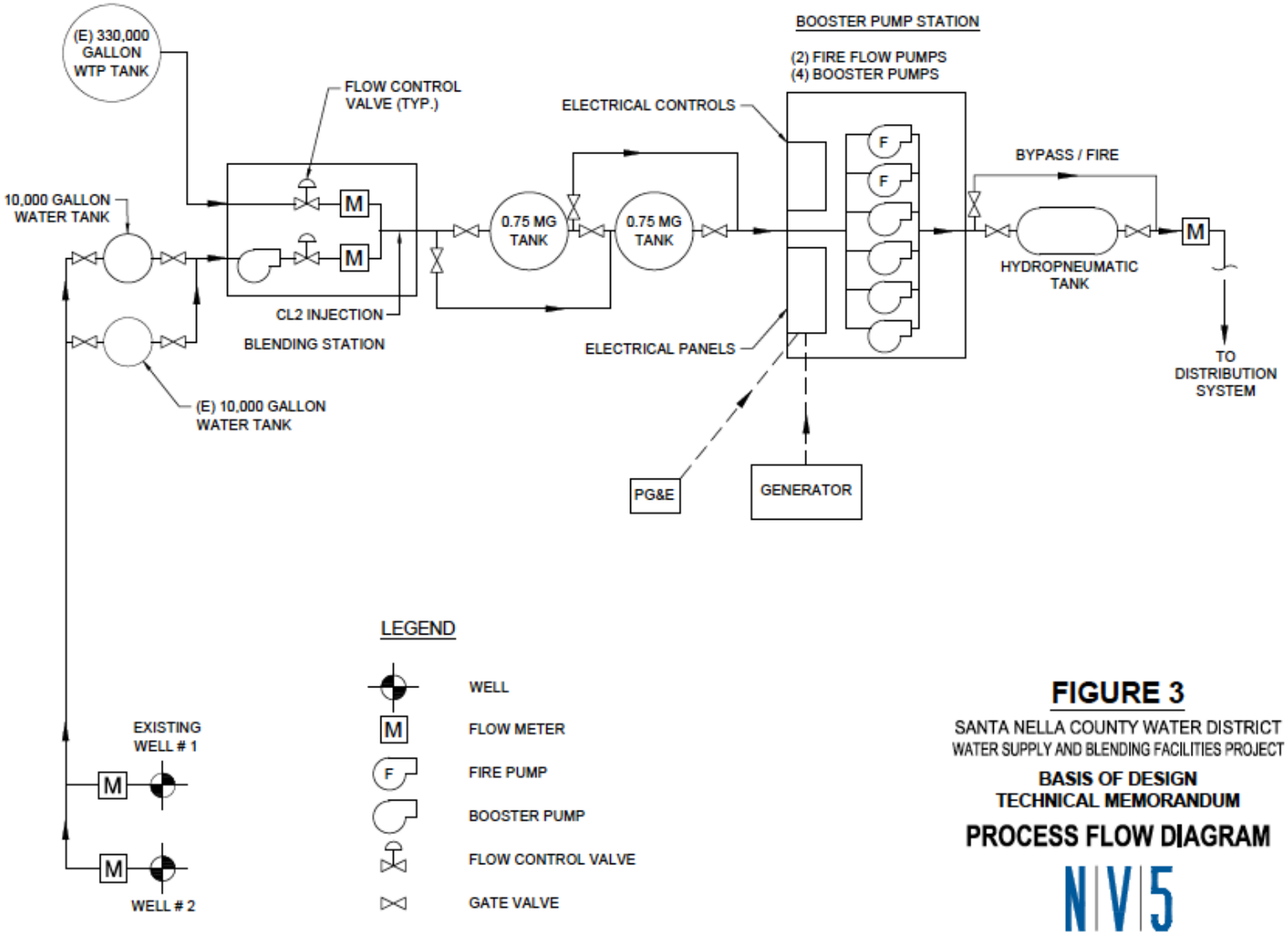


FIGURE 3

SANTA NELLA COUNTY WATER DISTRICT
WATER SUPPLY AND BLENDING FACILITIES PROJECT

BASIS OF DESIGN TECHNICAL MEMORANDUM

PROCESS FLOW DIAGRAM

NV5

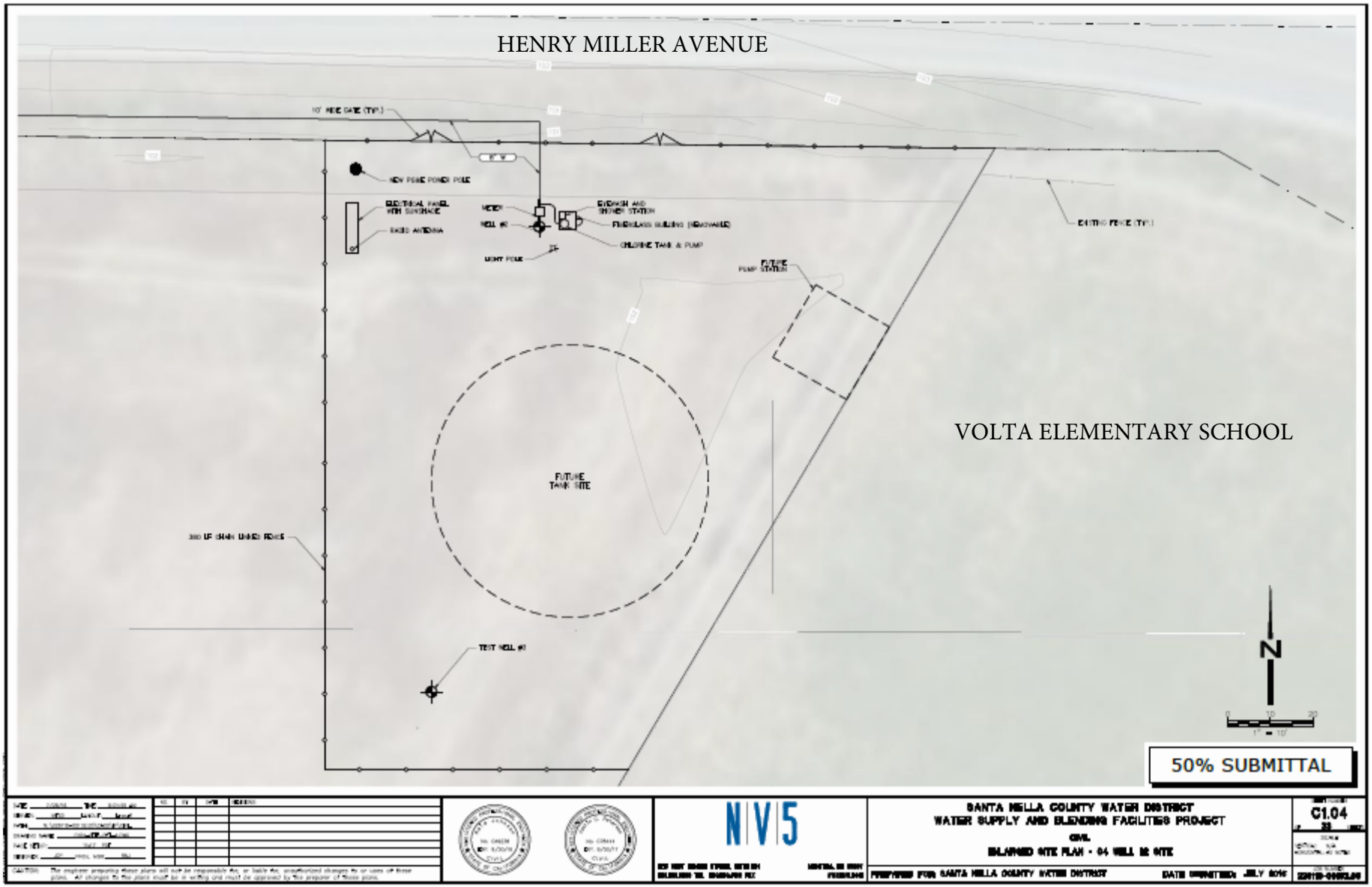


Figure 2-4
PROPOSED WELL SITE

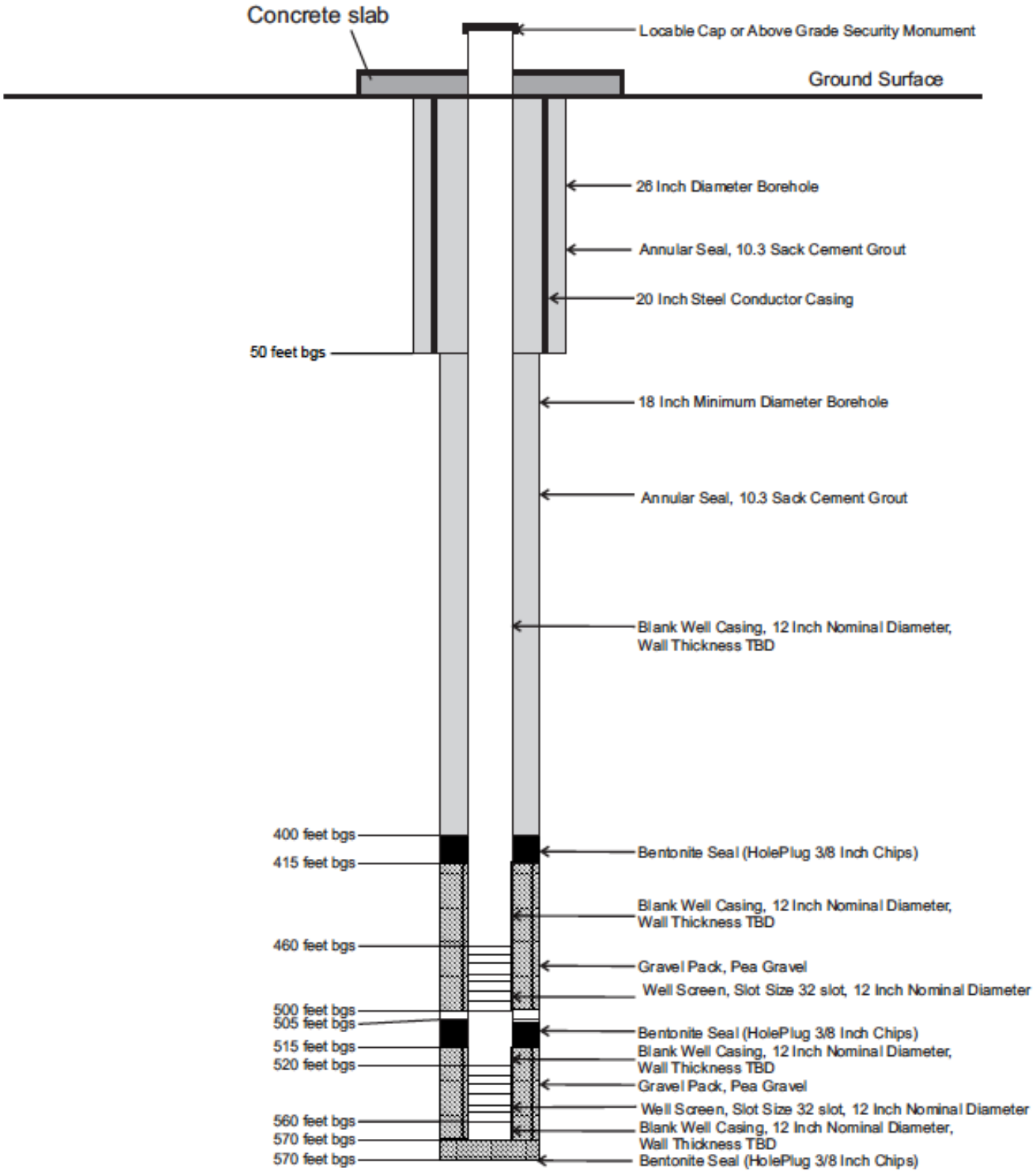


Figure 2-5
PROPOSED WELL DESIGN

SOURCE: Google Maps

Figure 2-6
EXISTING VOLTA WELL SITE

3.0 ENVIRONMENTAL CHECKLIST FORM

3.1 AESTHETICS

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

NARRATIVE DISCUSSION

Environmental Setting

The project is located in a predominantly rural area of Merced County, within and between the towns of Santa Nella and Volta and along Henry Miller Avenue, a County road that connects the two communities. Both communities are small with a mix of residences, businesses, schools and public services and other land uses. Most of the pipeline portion of the project is located along the south side of Henry Miller Avenue where adjacent agricultural fields dominate the landscape, with row crops, pasture and scattered farm buildings. Lands to the north of Henry Miller Avenue are primarily undeveloped right-of-way for the road and the adjacent San Luis Wasteway, which is defined by a low levee. Distance views to the north are available over the levee. A feed lot and agricultural products processing facility are located north of the Wasteway. Henry Miller Avenue is the dominant aesthetic feature in the pipeline project vicinity.

Interstate 5 and SR 33 pass through the west end of the project area. I-5 and SR 33 are more or less at-grade in the project area. Open distance views are available along most of I-5 due to lack of development and tree growth in the freeway corridor. Both sides of SR 33 are intensively developed with highway-serving commercial development (fueling, accommodations, restaurants); views along SR 33 are confined to the immediate street area although the Coast Range hills are visible in the background to the west.

In the town of Santa Nella, water storage, mixing and pumping improvements would be located on the 2-acre SNCWD headquarters site at the intersection of Henry Miller Avenue and SR 33. This site has mature trees along the south line, existing SNCWD facilities in the eastern portions of the site, Bayview Road and a levee system to the north, and Santa Nella Boulevard (SR 33) and associated commercial development to the east.

In the community of Volta, the proposed new well would be located on vacant land with open views of the surrounding agricultural uses, the adjacent elementary school and residences located within the community. The pipeline along Henry Miller Avenue and Volta Road passes by the school and existing residences. The existing well is adjacent to Volta Road; a Morningstar food processing facility is located immediately east of Volta Road, screened from view from the road and site by landscaping.

Rural and predominantly agricultural lands of the project area provide a relatively scenic landscape. In the distance, views of the Coast Ranges are available to the west, and the Sierra Nevada Mountains are visible to the east, when conditions permit. Merced County has designated Interstate 152 and Interstate 5 in Merced County as scenic routes (Merced County 2013). One of these, Interstate 5, passes through the west end of the project area. No State scenic highways have been designated in the vicinity (Caltrans 2015). There are no locally-designated scenic roads.

Lighting in the general project area is very limited with the exception of Santa Nella near the I-5 / SR 33 interchange. This area is intensively lighted by hotels, fast food restaurants, gas stations and the freeway ramps. The remainder of the project area is only lit by the occasional residence, farm equipment building or local businesses.

Environmental Impacts and Mitigation Measures

a) Scenic Vistas.
The project would involve development of above-ground facilities, including water storage and mixing facilities at the SNCWD site and above-ground portions of the new well. The SNCWD facilities would be visible from SR 33 behind the existing SNWCD facilities but would not substantially obstruct any existing vista. The new Volta Well #2 facilities involve above-ground components that would not substantially obstruct views; the proposed 0.2 million gallon water tank may exceed 20 feet in height but would not be visible from I-5 and would not substantially obstruct views in the vicinity of the tank.. The project would not involve the construction of any other new structures or the expansion of existing structures that would interfere with existing scenic vistas. The project would have a less than significant effect on this issue.

b) Scenic Routes and Resources.
The project would not involve construction or any substantial new above-ground structures in the vicinity of existing scenic routes. The proposed pipeline will be undergrounded near I-5 and will cross under I-5, the only designated scenic highway in the vicinity. Temporary construction disturbance will be visible, but after construction and restoration of the pipeline alignment, the project would involve no substantial visible

changes and views to and from Interstate 5 would not be altered. No other scenic resources have been identified in the vicinity. Project impacts on scenic resources would be less than significant.

c) Visual Character and Quality.
Construction of the pipeline portions of the project would temporarily affect visual quality along portions of Henry Miller Road, Volta Road and other minor portions of the Santa Nella and Volta communities. The pipeline alignment would be restored to its pre-project condition; as a result, these impacts would cease once construction work is completed. Existing visual conditions would not be altered by proposed pipeline improvements.

The project would construct two 0.75-million gallon storage tanks and booster pump facilities in the community of Santa Nella at the existing SNCWD headquarters. This two-acre site is developed with related and complementary facilities to the east and is shielded from view by these existing facilities and mature trees to the south. As a result, the project would not degrade or visually impact the surrounding area. The proposed new Well #2 would be constructed in the community of Volta on vacant land. This facility would involve small above-ground structures and a 0.2-million gallon water tank; this facility would result in a minor visual effect consistent with existing surrounding land uses and would not result in in a significant aesthetic effect. Project impacts on visual character and quality would be less than significant.

d) Light and Glare.

The proposed project would involve new lighting only in the western portions of the SNCWD site and proposed Well #2 site. No new lighting would be required along the proposed pipeline alignment. New lighting at these two sites, which would be provided for general security purposes, would be consistent with other existing night lighting in the vicinity. Security lighting would be directed to the facility site and would not be expected to result in any substantial off-site lighting or glare. Due to the size of the existing SNCWD site and shielding effect of existing facilities and mature trees to the south, the impact of this new lighting on surrounding land uses would be minimal. Therefore, the project would have a less than significant impact related to light or glare, and it would have no effect on nighttime views in the project vicinity.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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?				√

NARRATIVE DISCUSSION

Environmental Setting

Agriculture is the predominant land use in Merced County and essential to its economy. Merced County ranks as one of California's top five producers of milk and cream, chickens, almonds, alfalfa, cattle and calves, silage, and tomatoes (Merced 2013). With the exception of the well and pumping facilities in the Santa Nella and Volta communities, the project site is flanked predominantly by agricultural land to the north and south; lands to the north are also dominated by the San Luis Wasteway in the immediate vicinity of Henry Miller Avenue. Row crops and pasture are the majority of agricultural uses in the project vicinity.

The Important Farmland Maps, prepared by the California Department of Conservation as part of its Farmland Mapping and Monitoring Program, designate the viability of lands for farmland use, based on the physical and chemical properties of the soils. The maps categorize farmland, in decreasing order of soil quality, as "Prime Farmland," "Farmland of Statewide Importance," "Unique Farmland," and "Farmland of Local Importance." Collectively, these categories are referred to as "Important Farmland". There are also designations for grazing land and for urban/built-up areas, among others. According to

the 2016 Department of Conservation Important Farmland Map of Merced County, the project is located within areas designated Prime Farmland along Henry Miller Avenue and around the Volta community, where proposed Well #2 would be located. The proposed pipeline would be located within existing County and State road rights-of-way, which are not used or intended for use as agricultural land. Developed portions of the Santa Nella and Volta communities are designated as Urban and Built-Up.

The Williamson Act is State legislation that seeks to preserve farmland by offering property tax breaks to farmers who sign a contract pledging to keep their land in agricultural use. There are some lands adjacent to the proposed pipeline alignment that are under a Williamson Act contract; however, the project would be confined to the public road rights-of-way, which are not subject to Williamson Act contracts. Well #2 and the Santa Nella blending station are not located on Williamson Act parcels.

There are no forest lands in the project area or in the Central Valley portion of Merced County. Because of this, forestry resources will not be discussed further in this document.

Environmental Impacts and Mitigation Measures

a) Agricultural Land Conversion.
Proposed facilities would be located entirely on public land or within public road rights-of-way. None of these lands are subject or potentially subject to agricultural use. Well #2 is located on a small parcel has not been in agricultural use and is being acquired by the SNCWD for public utility use.

No farmland conversion would be required for the proposed improvements, and therefore, the project would not involve the conversion of Important Farmland. The project would have no impact on farmland conversion.

b) Agricultural Zoning and Williamson Act.
As described above, the project would not affect land zoned for agricultural use. Although lands in the project area zoned primarily for agricultural use, the project pipeline would be constructed on public lands and/or within the right-of-way of Henry Miller Avenue; both the new Well #2 in Volta and the storage and blending facilities in Santa Nella will be located on publicly-owned land in a developed location. While there are lands adjacent to the proposed pipeline alignment under Williamson Act contracts, the project would not encroach on such lands. The project would have no impact on agricultural zoning or Williamson Act contracts.

c, d) Forest Land Conversion and Zoning.
There is no forest land in the project vicinity. Therefore, the project would have no impact on forest lands.

e) Indirect Conversion of Farmland and Forest Land.
The project would not involve any conflict with, or have an adverse effect on, the ongoing and continued use of agricultural land in the project vicinity. While the project

could potentially encourage some development due to improvement of the Santa Nella and Volta water systems, it would be confined to these communities and would not necessarily extend into nearby agricultural lands. The potential for project-related growth inducement is discussed in more detail in Section 3.14 Population and Housing. Therefore, project impacts regarding indirect conversion of farmland are considered less than significant. The project would have no indirect effect on conversion of forestland to non-forest use.

3.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?				√
b) Violate any air quality standard or contribute to an existing or projected air quality violation?			√	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				√
d) Expose sensitive receptors to substantial pollutant concentrations?				√
e) Create objectionable odors affecting a substantial number of people?				√

NARRATIVE DISCUSSION

Environmental Setting

The project site is located within the San Joaquin Valley Air Basin. The San Joaquin Valley Air Pollution Control District (SJVAPCD) has jurisdiction over most air quality matters in the Air Basin. The SJVAPCD is tasked with implementing programs and regulations required by the federal and California Clean Air Acts.

Under their respective Clean Air Acts, both the federal government and the State of California have established ambient air quality standards for six criteria air pollutants: ozone, particulate matter, carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. California has four additional pollutants for which it has established standards. Table 3-1 shows the status of the San Joaquin Valley Air Basin in attaining these ambient air quality standards. As shown in Table 3-1, the Air Basin is considered a non-attainment

area for ozone and particulate matter under both State and federal standards, except for the federal standard for particulate matter less than 10 micrometers in diameter (PM_{10}). The Air Basin is in attainment of, or unclassified for, all other federal and state criteria pollutant standards.

TABLE 3-1
SAN JOAQUIN VALLEY AIR BASIN ATTAINMENT STATUS

	Designation/Classification	
Criteria Pollutant	**Federal Primary Standards**	**State Standards**
Ozone - One hour	No Federal Standard	Nonattainment/Severe
Ozone - Eight hour	Nonattainment/Extreme	Nonattainment
PM_{10}	Attainment	Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide (NO_x)	Attainment/Unclassified	Attainment
Sulfur Dioxide (SO_x)	Attainment/Unclassified	Attainment
Lead	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

Source: SJVAPCD 2015a.

In addition to the criteria pollutants, the California Air Resources Board (ARB) has identified a class of air pollutants known as toxic air contaminants (TACs) - pollutants that even at low levels may cause acute serious, long-term health effects, such as cancer. Diesel particulate matter is the most common TAC, generated mainly as a product of combustion in diesel engines. Other TACs are less common and are typically associated with industrial activities.

As previously noted, the SJVAPCD implements the federal and California Clean Air Acts through applicable attainment and maintenance plans and local regulations. Applicable attainment plans include the 2007 Ozone Plan, the 2013 Plan for the Revoked 1-Hour Ozone Standard for the Air Basin, the 2007 PM_{10} Maintenance Plan, and the 2008 $PM_{2.5}$ Plan for the Air Basin. The SJVAPCD regulations that would be applicable to the project are summarized below.

Regulation VIII (Fugitive Dust PM10 Prohibitions)
Rules 8011-8081 are designed to reduce PM_{10} emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, landfill operations, etc.

Rule 4101 (Visible Emissions)
This rule prohibits emissions of visible air contaminants to the atmosphere and applies to any source operation that emits or may emit air contaminants.

Environmental Impacts and Mitigation Measures

In 2015, the SJVAPCD adopted a revised Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI). The GAMAQI defines methodology and thresholds of significance for the assessment of air quality impacts for projects within SJVAPCD's jurisdiction, along with mitigation measures for identified impacts. Table 3-2 shows the CEQA thresholds of significance for pollutant emissions within the SJVAPCD.

Construction of the proposed project would involve the use of heavy equipment powered by diesel or other internal combustion engines. The Road Construction Emissions Model (RCEM) was used to estimate the pollutant emissions that would result from such equipment use. Although developed for road projects, the RCEM is a useful model to estimate emissions for projects that are linear in character. A construction period of four months was assumed. The RCEM results are shown in Appendix B of this document and in Table 3-2 below.

TABLE 3-2
PROJECT CONSTRUCTION AIR POLLUTANT EMISSIONS

Pollutant	SJVAPCD Significance Threshold	Project Emissions	Exceeds Threshold?
CO	100	0.9	No
NOx	10	1.6	No
ROG	10	0.3	No
SOx	27	-	No
PM_{10}	15	0.1	No
$PM_{2.5}$	15	0.1	No

Sources: Road Construction Emissions Model v. 7.1.5.1; SJVAPCD 2015b.

a) Air Quality Plan Consistency.
The project would not generate any air pollutant emissions once construction work is completed. The project would have no impact regarding consistency with the ozone and particulate matter air quality plans applicable to the San Joaquin Valley Air Basin. Therefore, the project would have no effect in this issue area.

b) Violation of Air Quality Standards.
As noted in a) above, the project would not involve any operational emissions. As indicated in Table 3-2, estimated project construction air emissions would be substantially below the significance thresholds adopted by the SJVAPCD.

Project construction may generate localized dust emissions at levels above existing ambient conditions, which is of concern given the proximity of residences to portions of the project alignment. Dust emissions would be reduced through required conformance with SJVAPCD Regulation VIII, which contains the following dust emission control measures:

- Air emissions related to the project shall be limited to 20% opacity (opaqueness, lack of transparency) or less, as defined in SJVAPCD Rule 8011. The dust control measures specified below shall be applied as required to maintain the Visible Dust Emissions standard.

- The contractor shall pre-water all land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and phase earthmoving.

- The contractor shall apply water, chemical/organic stabilizer/suppressant, or vegetative ground cover to all disturbed areas, including unpaved roads, throughout the period of soil disturbance.

- The contractor shall restrict vehicular access to the disturbance area during periods of inactivity.

- The contractor shall apply water or chemical/organic stabilizers/suppressants, construct wind barriers and/or cover exposed potentially dust-generating materials.

- When materials are transported off-site, the contractor shall stabilize and cover all materials to be transported and maintain six inches of freeboard space from the top of the container.

- The contractor shall remove carryout and trackout of soil materials on a daily basis unless it extends more than 50 feet from site; carryout and trackout extending more than 50 feet from the site shall be removed immediately. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden. If the project would involve more than 150 construction vehicle trips per day onto the public street, additional restrictions specified in Section 5.8 of SJVAPCD Rule 8041 would apply.

Required implementation of the provisions of SJVAPCD Regulation VIII would reduce dust emissions generated by the project to a level considered less than significant.

c) Cumulative Emissions.
The project would not generate any pollutant emissions after completion of construction work; therefore, the project would not make a cumulative contribution to adverse air quality conditions. The project would have no impact on cumulative air pollutant emissions.

d) Exposure of Sensitive Receptors.
Sensitive receptors include single-family residences located along Henry Miller Avenue and Volta Road in the vicinity of the project site. Project operations would not generate any emissions that would affect these sensitive receptors. Project construction emissions, including diesel particulate matter (a TAC), could affect residences adjacent to the

project alignment. Diesel particulate matter emissions would have adverse effects on residents only with long-term exposure, and potential exposure of any individual residence to these emissions as a result of the project would not exceed a few days at most; diesel particulate emissions would cease once construction work is completed. Therefore potential exposure of sensitive receptors to air pollutants is considered less than significant.

e) Odor Impacts.
The project does not involve any features that would generate any substantial or noticeable odors during either construction or operation. Construction would involve conventional equipment. The project would have no impact related to odors.

3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Adversely impact, either directly or through habitat modifications, any endangered, rare, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?		√		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				√
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				√
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		√		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				√
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?				√

NARRATIVE DISCUSSION

Environmental Setting

Merced County has unique natural resources, including pristine vernal pools, grasslands, unique plant and animal species, large managed wetland preserves, and a range of wildlife-based recreational opportunities. More than 170,000 acres in Merced County are currently (2010) protected in either Federal and State wildlife areas or private conservancies (Merced General Plan 2030). The County is also home to the Merced Grasslands, one of the largest and most intact grassland wetland habitats in the world.

Moore Biological was retained to provide a biological survey and report of the project area in December 2016. Prior to field survey of the project area, Moore conducted a search of California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB, 2016). The CNDDB search was conducted on the USGS 7.5-minute San Luis Dam, Volta, Ingomar, and Howard Ranch topographic quadrangles, encompassing approximately 240+/- square miles surrounding the site (Appendix C). The United States Fish and Wildlife Service (USFWS*)* IPaC Trust Resource Report of Federally Threatened and Endangered species that may occur in or be affected by projects in the project vicinity was also reviewed (Appendix C). This information was used to identify special-status wildlife and plant species that have been previously documented in the vicinity or have the potential to occur based on suitable habitat and geographical distribution. Additionally, the CNDDB depicts the locations of sensitive habitats. The USFWS on-line-maps of designated critical habitat in the area were also downloaded.

A biological survey of the project site was conducted by Principal Biologist Diane Moore on December 20, 2016. The survey area included all areas of proposed improvements, as well as adjacent areas that may be subject to construction disturbance. Survey results and other biological setting is shown in the Moore Biological report, Appendix C.)

The project site was assessed for the presence of potentially jurisdictional Waters of the U.S. and wetlands as defined by the U.S. Army Corps of Engineers (ACOE, 1987; 2008), and for special-status species and suitable habitat for special-status species (e.g., blue elderberry shrubs, vernal pools). Trees in and near the site were assessed for the potential use by nesting raptors, especially Swainson's hawk (*Buteo swainsoni*). The cropland and grasslands in the site and adjacent areas visible from the site were searched for burrowing owls (*Athene cunicularia*) or ground squirrel burrows with evidence of past occupancy.

Project Area Vegetation and Wildlife

The project area is predominately located in an area used for agricultural purposes. Vegetation consists mainly of row crops and vacant land of grasses and weeds, with scattered growth throughout project area. The field just west of the SNCWD offices where the water storage, blending, and pumping facilities will be located is periodically disked and highly disturbed. The field in Volta where the new well will be constructed is moderately disturbed by past uses as evidence by soil stockpiles and scraped areas.

The old well site in Volta is in the corner of a leveled field that is also disturbed. Vegetation in these areas is disturbed ruderal grassland vegetation consisting almost entirely of non-native grasses and weeds. There are narrow strips of even more highly disturbed ruderal grassland vegetation along the edges of Henry Miller Avenue, and the agricultural fields, dirt roads, irrigation and/or drainage ditches, and canals in the area.

The pipeline alignment along the edge of Henry Miller Avenue just west of Volta is adjacent to a large duck pond that was full of water during the recent survey (Appendix C, Figure A-4 and photographs). This pond supports hydrophytic (i.e., wetland) vegetation such tules (*Scirpus acutus*), cattails (*Typha* sp.), rabbit's foot grass (*Polypogon monspeliensis*), water smartweed (*Polygonum lapathifolium*), cocklebur (*Xanthium strumarium*), and umbrella sedge (*Cyperus eragrostis*). A subset of these same species occurs in an irrigation and/or drainage ditch along the edge of Henry Miller Road just west of the Main Canal. The proposed pipeline will be located between these aquatic habitats and the road, and no work will be required in the duck pond or the ditch.

Just west of the duck pond, the pipeline alignment along the edge of Henry Miller Avenue is adjacent to a relatively natural parcel supporting alkali sink scrub vegetation (Appendix C). The area supports iodine bush (*Allenrolfea occidentalis*) that is dense in some areas, and contains a mosaic of upland grassland and seasonal wetland areas. Again, the proposed pipeline will installed be between the alkali sink scrub habitat and the road, and no work will be required in the alkali sink scrub vegetation.

Trees in and near the project site are primarily blue gum (*Eucalyptus* sp.), ornamental pine (*Pinus* sp.), black walnut (*Juglans californicus*), and a variety of ornamentals (see photographs in Attachment D). No blue elderberry (*Sambucus mexicana*) shrubs were observed within or adjacent to the project site.

Special-Status Species

Special-status species are plants and animals that are legally protected under the state and/or federal Endangered Species Act or other regulations. The Federal Endangered Species Act (FESA) of 1973 declares that all federal departments and agencies shall utilize their authority to conserve endangered and threatened plant and animal species. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California species. Both FESA and CESA prohibit unauthorized "take" (i.e., killing) of listed species; take is broadly defined in both acts to include activities such as harassment, pursuit and possession.

Special-status wildlife species also includes species that are considered rare enough by the scientific community and trustee agencies such as the California Department of Fish and Wildlife to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. The federal Migratory Bird Treaty Act and Fish and Game Code of California protect special-status bird species year-round, as well as their eggs and nests during the nesting season. Fish and Game Code of California also provides protection for mammals and fish.

Special-status plants are those which are designated rare, threatened, or endangered and candidate species for listing by the USFWS. Special-status plants also include species considered rare or endangered under the conditions of Section 15380 of the California Environmental Quality Act Guidelines, such as those plant species identified on Lists 1A, 1B and 2 in the Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2016). Finally, special-status plants may include other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included on CNPS List 3.

SPECIAL-STATUS PLANTS

Five species of special-status plants were identified in the CNDDB (2016) search in reference to the project area: heartscale (*Atriplex cordulata*), round-leaved filaree (*California macrophylla*), hispid bird's-beak (*Chloropyron molle spp. hispidum*), Sanford's arrowhead (*Sagittaria sanfordii*), and slender-leaved pondweed (*Stuckenia filiformis*). There are no special-status plants included in the USFWS IPaC Trust Resource Report. The site survey revealed that adequate habitat for these listed plant species does not exist within the project area and none were located. Alkali sink scrub habitat does exist in the immediate vicinity of Volta but outside the project site; the project would not encroach on this habitat.

SPECIAL-STATUS WILDLIFE

Special-status wildlife species that have been recorded in greater project vicinity in the CNDDB (2016) include Swainson's hawk, burrowing owl, golden eagle (*Aquila chrysaetos*), tricolored blackbird (*Agelaius tricolor*), northern harrier (*Circus cyaneus*), loggerhead shrike (*Lanius ludovicianus*), San Joaquin kit fox (*Vulpes macrotis mutica*), American badger (*Taxidea taxus*), California tiger salamander (*Ambystoma californiense*), giant garter snake (*Thamnophis gigas*), blunt-nosed leopard lizard (*Gambelia sila*), western pond turtle (*Emys marmorata*), western spadefoot (*Spea hammondii*), longhorn fairy shrimp (*Branchinecta longiantennae*), and vernal pool tadpole shrimp (*Lepidurus packardi*). Of the wildlife species identified in the CNDDB, Swainson's hawk and burrowing owl are the only species that have much potential to occur in the project site on more than a transitory or very occasional basis.

The Swainson's hawk is a migratory hawk listed by the State of California as a Threatened species and is protected year-round, as well as their nests during the nesting season (March 1 through September 15). Swainson's hawk are found in the Central Valley primarily during their breeding season, a population is known to winter in the San Joaquin Valley. The CNDDB (2016) contains several records of nesting Swainson's hawk in the greater project vicinity. The nearest occurrence of nesting Swainson's hawks in the CNDDB (2016) search area is a pair nesting in a cluster of eucalyptus along the north side of Henry Miller Road just east of Outside Canal. There are suitable nest trees near the proposed project improvements and the project vicinity provides suitable

foraging habitat for this species. Due to the small size of the parcels in Volta and Santa Nella where project facilities will be constructed, it is unlikely Swainson's hawks use either of these areas for intensive foraging. However, Swainson's hawks may forage in these areas on occasion and may also nest in trees in or near the site in the future.

Burrowing owls are also protected year-round, as well as their nests during the nesting season (February 1 through August 31). Burrowing owls are a year-long resident in a variety of grasslands as well as scrub lands that have a low density of trees and shrubs with low growing vegetation; burrowing owls that nest in the Central Valley may winter elsewhere. The nearest occurrence of this species in the CNDDB (2016) search area is approximately 0.75 miles south of Santa Nella. The intensity of development, irrigation, and cultivation within and surrounding the site reduces the likelihood of burrowing owls using the site for nesting. No burrowing owls were observed in the project site during the recent survey. Only a few clusters of ground squirrel burrows were observed in the site; none of these burrows had evidence of burrowing owl occupancy.

Wetlands and Waters of the U.S.

Waters of the U.S. are broadly defined under 33 Code of Federal Regulations 328 to include navigable waterways, their tributaries, and adjacent wetlands. They also include, but are not limited to, perennial and intermittent creeks and drainages; lakes, seeps, and springs; emergent marshes; and riparian and seasonal wetlands. Discharges of fill or dredged materials into Waters of the U.S. are regulated by the Clean Water Act Section 404 permit program, administered by the U.S. Army Corps of Engineers.

No potentially jurisdictional Waters of the U.S. or wetlands were observed within the footprint of the proposed project. The fields in Santa Nella and Volta where project facilities will be constructed are vegetated in upland grasses and weeds. The pipeline alignment along Henry Miller Avenue will be constructed in either the graveled road shoulder or in disturbed upland ruderal grassland vegetation.

Several created and managed irrigation and/or drainage facilities in the area, as well as duck ponds managed for waterfowl, have potential to fall under ACOE jurisdiction due to hydrologic connectivity with jurisdictional Waters of the U.S. Main Canal and Outside Canal, which flow under Henry Miller Road are likely jurisdictional as they derive water from the San Joaquin River. The San Luis Wasteway, which is located along the edge of the field west of the SNCWD offices, the duck pond west of Volta, and the irrigation and/or drainage ditch along the edge of Henry Miller Road just west of the Main Canal are also potentially jurisdictional Waters of the U.S. The project will not involve work in any of these potentially jurisdictional features.

Environmental Impacts and Mitigation Measures

a) Special-Status Species.

Due to a lack of suitable habitat, it is unlikely that special-status plants occur in any portion of the project site. With the exception of Swainson's hawk and burrowing owl, no special-status wildlife species are expected to occur in or near the site on more than a

very occasional or transitory basis. Conversion of the small areas of ruderal grassland occurring in and near the site to project features will result in a less than significant loss of potential Swainson's hawk or burrowing owl foraging habitat.

Although not identified during the biological survey, the project has the potential to affect Swainson's hawk and burrowing owl nesting as well as nesting by other protected species that may occur in the project vicinity. These impacts are potentially significant but would be reduced to a less than significant level by having a qualified biologist conduct pre-construction surveys and provide recommendations, such as buffer area or temporal restrictions, and observing the recommendations of the biologist during construction.

Level of Significance: Potentially significant

Mitigation Measures

BIO-1: Pre-construction surveys for nesting Swainson's hawks within 0.5 miles of the project site are recommended if construction commences between March 1 and September 15. If active nests are found, a qualified biologist should determine the need (if any) for temporal restrictions on construction. The determination should be pursuant to criteria set forth by CDFW (CDFG, 1994).

BIO-2: Pre-construction surveys for burrowing owls within 250 feet of the site are recommended if construction commences between February 1 and August 31. If occupied burrows are found, a qualified biologist should determine the need (if any) for temporal restrictions on construction. The determination should be pursuant to criteria set forth by CDFW (CDFG, 2012).

Significance After Mitigation: Less than significant

b) Riparian and Other Sensitive Habitats.
No riparian habitats or other sensitive natural communities were observed in the site. The alkali sink scrub vegetation south of Henry Miller Road near Volta is outside the limits of work and there will be no impact to this or any other special-status vegetation community.

c) Wetlands.
No potentially jurisdictional Waters of the U.S. or wetlands were observed in the site. The duck pond south of Henry Miller Road near Volta and irrigation and/or drainage ditch near the Main Canal are outside the limits of work, and there will be no impact to these potentially jurisdictional features.

d) Fish and Wildlife Movement.
The project would not affect any streams or channels that may be used as migration routes by fish. As previously noted, the project area could provide potential nesting and

foraging habitat for migratory birds. Mitigation Measure BIO-3 described below would avoid impacts on migratory bird nests, thereby reducing project impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures

BIO-3: On-site trees, shrubs, and grasslands could be used by birds protected by the Migratory Bird Treaty Act of 1918 and/or Fish and Game Code of California. If construction commences during the general avian nesting season (March 1 through July 31), a pre-construction survey for nesting birds is recommended. If active nests are found, work in the vicinity of the nest should be delayed until the young fledge.

Significance After Mitigation: Less than significant

e) Local Biological Requirements.
Policy NR-1.5: of the Merced County General plan requires wetland and riparian habitat be identified and protected from degradation encroachment or loss (Merced 2030). The project will be located entirely within existing road right-of-way or uplands and will not encroach on any wetland or riparian habitat, and will therefore have no impact on local biological requirements.

f) Conflict with Habitat Conservation Plans.
There are no Habitat Conservation Plans, Natural Community Conservation Plans, or similar plans that apply to the project area. The project would have no impact on this issue.

3.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				√
b) Cause a substantial adverse change in the significance of a unique archaeological resource (i.e., an 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 contains information needed to answer important scientific research questions, has a special and particular quality such as being the oldest or best available example of its type, or is directly associated with a scientifically recognized important prehistoric or historic event or person)?		√		

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		√		
d) Disturb any human remains, including those interred outside of formal cemeteries?			√	

NARRATIVE DISCUSSION

Environmental Setting

The cultural resources setting for the project, as described below, is based upon a cultural resource report prepared in 2017 by Genesis Society. Genesis Society reviewed a search of the historical and archaeological records conducted by the Central California Information Center at CSU Stanislaus on December 22, 2016, and Principal Investigator, Sean Michael Jensen, M.A., accompanied by Archaeological Technician Asher Levin, B.A., undertook a pedestrian field survey of the project on Saturday, December 31, 2016. Appendix B contains the cultural resource report for the project.

Prehistoric Background

The project area is within territory claimed by the Northern Valley Yokuts. The Yokuts occupied an extensive area, from the Coast Ranges to the Sierra Nevada foothills, and from the American River to near Tulare Lake. Yokut villages typically consisted of a scattering of small structures, numbering from four or five to several dozen in larger villages, and were often located on elevated features adjoining streams. These villages were inhabited mainly in the winter; the Yokuts established temporary camps in the hills and higher elevations during food-gathering seasons. Economic life revolved around hunting, fishing, and plant collection, with deer, acorns, and avian and aquatic resources representing primary staples. The Yokuts used local resources to manufacture an array of primary and secondary tools and implements, including a wide variety of wooden, bone, and stone artifacts to collect and process food. Only fragmentary evidence of their material culture remains, due to perishability, and to impacts on archaeological sites resulting from later land uses.

In 2014, the California Legislature enacted AB 52, which focuses on consultation with Native American tribes on land use issues potentially affecting the tribes. The intent of this consultation is to avoid or mitigate potential impacts on "tribal cultural resources," which are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe." Under AB 52, when a tribe requests consultation with a CEQA lead agency on projects within its traditionally and culturally affiliated geographical area, the lead agency must provide the tribe with notice of a proposed project within 14 days of a project application being deemed complete or when the lead agency decides to undertake the project if it is the agency's own project. The tribe has up to 30 days to respond to the notice and request consultation; if consultation is requested, then the local agency has up to 30 days to initiate consultation.

No evidence of prehistoric use or presence was noted during the pedestrian survey of the project site. The absence of these resources in the project vicinity may best be explained by the presence of more suitable habitation settings located west of the APE where prehistoric resources have been documented.

Historic-Era Background

Early Spanish expeditions arrived from Bay Area missions as early as 1804, penetrating the northwestern San Joaquin Valley (Cook 1976). By the mid-1820s, hundreds of fur trappers were annually traversing the Valley on behalf of the Hudson's Bay Company (Maloney 1945). By the late 1830s and early 1840s, several small permanent European-American settlements had emerged in the Central Valley and adjacent foothill lands, including Ranchos in the interior Coast Range, and of course the settlement at New Helvetia (Sutter's Fort) at the confluence of the Sacramento and American Rivers (Sacramento).

In 1843, Jose Mejia and Juan Perez Pacheco petitioned the Mexican governor for rights to over 48,000 acres in and around Pacheco Pass. The Rancho San Luis Gonzaga was granted in November of that year and bordered the ranch (Rancho Ausaymas y San Felipe) owned by Pacheco's father since 1833. Through further grants and the purchase of additional lands in the region, the Pacheco family holdings exceeded 150,000 acres by the middle of the 19th century (Hill et al. 1996).

Several roads were built through Pacheco Pass, several miles west of the present APE, in historic times, including the original Pacheco Pass toll road constructed by Andrew Firebaugh in the late 1850s. The general route of Firebaugh's highway was improved upon by the state in the early 1900s, and finally with construction of Highway 152 in the 1960s.

The most significant road in the Central Valley and Santa Nella area is Interstate 5 (I-5). Construction of the highway began in the early 1960s, and proceeded in three phases during the 1960s-1970s. The Santa Nella area witnessed gradual growth associated with the community's proximity to the highway.

In addition to these early trails and roads, of particular importance to the transformation of the region was brought about by the railroads. The Southern Pacific and Central Pacific Railroads and a host of smaller interurban lines to the north and east around the cities of Sacramento, Stockton and Modesto began intensive projects in the late 1860s. Completed by 1891, the Southern Pacific's West Side Line, the railroad route that extended from Tracy along the western margin of the San Joaquin Valley, and generally paralleling the present I-5 corridor, continued through Patterson, Gustine and Los Banos before continuing to Fresno, facilitated the growth of many communities, including Volta.

The Volta Improvement Company established the community in 1890, as a sheep camp, complete with a post office (Wood 2007). A number of structures and conveniences were established within the community over the coming decades, most of which supported, or

were brought about by ranching and agriculture, and maintained by the railroad. Wood (2007:56) reports that "Most of the old businesses have disappeared. A vacant lot now stands where the old Post Office was. Only a concrete slab near the street remains of the entrance to the grocery store. The railroad tracks have been removed and the warehouses have gone."

Agricultural development intensified through the end of the 19th and into the 20th centuries, spurred initially and then supported by the railroads that provided the means for bulk product to be transported to a much larger market. By the end of the 19th century, a very substantial portion of the Valley was being intensively cultivated, with increasing mechanization occurring throughout all of the 20th century and substantial expansion of cultivated acreage occurring with the arrival of water from the Central Valley Project (CVP). The San Luis Wasteway, located north of Henry Miller Avenue, is a component of the CVP.

Prior to the inception of the CVP, John Bensley was instrumental in the formation of the San Joaquin Canal Company (SJCC) in 1866. The company planned to connect the Tulare Lake Basin with the San Joaquin River, at the Mendota Pool, via a canal system. Encountering financial difficulties, SJCC came under control of the land and cattle company Miller & Lux during the 1870s, at which time canal construction immediately began. Between the 1870s and the 1920s, this and other irrigation infrastructure was constructed, which would ultimately come under control of the Central California Irrigation District (CCID), , including the Main Canal and the Outside Canal, both of which bisect the present APE.

Although a significant component of the CCID infrastructure and an important part of the larger Central Valley Project (CVP), both the Main Canal, and the Outside Canal were recommended not eligible for NRHP listing due to a lack of integrity by JRP (Byrd 1996), and in 2000 they received a consensus determination of ineligibility and both were given the status code of 6Y in the Office of Historic Preservation's Historic Properties Directory (Program reference number DOE 24-00-0027-0000/FHWA 000623D and DOE 24-00-0025- 0000/FHWA 000623D, respectively).

Organization of the CCID occurred in 1951, and shortly thereafter, CCID purchased the assets, including the water rights and distribution system, of the SJCC. In 1954, the newly formed district took over operation of the SJCC and today provides water from the Mendota Dam northward approximately 110 miles to its service area of approximately 120,000 irrigated acres.

Paleontological Resources

Paleontological resources are any fossilized remains, traces, or imprints of organisms preserved in or on the earth's crust, that provide information about the history of life on earth and its evolution, with the exception of archeological resources. During the Holocene Epoch (10,000 years ago to the present) the San Joaquin Valley was above sea level and had generally reached its present appearance and extent. The Valley contained fresh water lakes and rivers attractive to prehistoric herding and grazing animals,

including the Columbian Mammoth, camel, bison, and native horse. The fossil remains of these animals have been found in Merced County and adjacent areas. Paleontological specimens may be unearthed in the county during project activities. Twelve localities in Merced County have yielded Late Pleistocene-Age large mammal fossils. These occur in three major formations: the Moreno, Panoche, and Kreyenhagen formations, which are exposed primarily in the western part of the county in the Coast Range.

Environmental Impacts and Mitigation Measures

a, b) Historical and Archaeological Resources.
No archaeological resources were encountered during the record search and survey of the project site. The project area is considered less sensitive for prehistoric occupation than other more suitable sites in areas to the west. No historical resources were identified in the record search or survey of the project. As a result, the project would result in no effect on known archaeological or historical resources.

The project area has been extensively disturbed by railroad, water resource, roadway and agricultural development activities. As a result, it is unlikely that any intact historical or archaeological resources would be uncovered during project construction. There is however, always a chance that excavation associated with the project could unearth materials of significance. The establishment of procedures to address archaeological discoveries, if they should occur, would reduce potential impacts to a level that would be less than significant. These procedures are set forth in the following mitigation measure, which also addresses paleontological resources.

Level of Significance: Potentially significant

Mitigation Measures:

CULT-1: If any subsurface cultural or paleontological resources are encountered during construction of the project, all construction activities in the vicinity of the encounter shall be halted until a qualified archaeologist, or paleontologist as appropriate, can examine these materials, make a determination of their significance and, if significant, recommend further mitigation measures that would reduce potential effects to a less than significant; such measures could include 1) preservation in place or 2) excavation, recovery and curation by qualified professionals. The SNCWD shall be responsible for retaining qualified professionals, implementing recommended mitigation measures and documenting mitigation efforts, consistent with the requirements of the CEQA Guidelines.

Significance After Mitigation: Less than significant

c) Paleontological Resources and Unique Geologic Features.
The project area is predominantly flat alluvial land that contains no geologic features that may be considered unique. Much of the project area has been disturbed by agricultural

and development activities; however, it is conceivable that excavation associated with the project could unearth paleontological materials of significance. The establishment of procedures to address paleontological discoveries if they should occur would reduce any potential impacts to a less than significant level. These procedures are set forth in Mitigation Measure CULT-1 above.

d) Human Burials.
Based on available records, past disturbance of the project area has not uncovered human burials, particularly Native American burials. Even so, it is conceivable that excavation associated with the project could uncover a previously-unknown burial.

CEQA Guidelines Section 15064.5(e) describes the procedure to be followed when human remains are uncovered in a location outside a dedicated cemetery. All work in the vicinity of the find shall be halted and the County Coroner shall be notified to determine the nature of the remains and whether further investigation is required. If the County Coroner determines that the remains are Native American in origin, then the County Coroner must contact the Native American Heritage Commission within 24 hours. The Native American Heritage Commission shall identify the most likely descendants of the deceased Native American, and the most likely descendants may make recommendations on the disposition of the remains and any associated grave goods with appropriate dignity. If a most likely descendant cannot be identified, the descendant fails to make a recommendation, or the landowner rejects the recommendations of the most likely descendant, then the landowner shall rebury the remains and associated grave goods with appropriate dignity on the property in a location not subject to further disturbance.

Required compliance with CEQA Guidelines Section 15064.5(e) would ensure that impacts on any human remains encountered during project construction would be less than significant.

3.6 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				√
ii) Strong seismic ground shaking?			√	

iii) Seismic-related ground failure, including liquefaction?		√		
iv) Landslides?				√
b) Result in substantial soil erosion or the loss of topsoil?		√		
c) Be located on strata 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 Uniform Building Code, creating substantial risks to life or property?		√		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				√

NARRATIVE DISCUSSION

Environmental Setting

Regional Geomorphology

The project area lies in western Merced County in the southern portion of the Great Valley Geomorphic Province. The Great Valley, also known as the Central Valley, is a topographically flat, northwest-trending, structural trough (or basin) about 50 miles wide and 450 miles long. It is bordered by the Tehachapi Mountains on the south, the Klamath Mountains on the north, the Sierra Nevada on the east, and the Coast Ranges on the west. The southern portion of the Great Valley in which the project is located, is filled with thick alluvial deposits up to 130 million years in age. Large alluvial fans have developed on each side of the Valley. The larger and more gently sloping fans are on the east side of the Valley, and overlie metamorphic and igneous basement rocks. These basement rocks are exposed in the Sierra Nevada foothills and consist of metasedimentary, volcanic, and granitic rocks.

Seismic and Geologic Hazards

There are no known active or potentially active faults located in the project vicinity. The nearest faults of historical significance are the San Andreas to the west of Merced County, the Hayward and Calaveras faults to the northwest, the White Wolf, Garlock, and Sierra Nevada faults to the south, and the Bear Mountain Fault Zone. These faults have been active in the past, and will continue in the future to be the principal source of seismic activity affecting the County of Merced (Merced County 2000). The only fault known inside Merced County is the Ortigalita, located west of the site and crossing San Luis Reservoir and the late Quaternary O'Neill Fault System that passes west of the

SNCWD facilities. This fault has not been active in historic times but nonetheless could become active in the future.

Potential seismic hazards include ground rupture (also called surface faulting), ground shaking, liquefaction, and lateral spreading. Soil compaction and settlement can result from seismic groundshaking. If saturated sediments are compacted during an earthquake, soils may liquefy and lose their bearing capacity (liquefaction). Water may be forced to the ground surface, where it can emerge in the form of mud spouts or sand boils. Based on known information, areas of the County with groundwater less than 50 feet from ground surface in unconsolidated sediment are susceptible to liquefaction, including lands near river courses (Merced County 2000). As discussed below, the approximate depth to groundwater within most of the project area is approximately 10 feet below ground surface. However, soils in the vicinity of Volta are typically saturated to near the soil surface.

According to the U.S. Department of Agriculture's Soil Survey of Merced County (SCS 1992, NRCS 2016), there are five types of soils in the project area, summarized in see Table 3-3 below. These soils are typically alluvial in nature and loamy, although in the Volta area soils tend to be clay loam. Similarly, drainage varies from well-drained in the west to poorly-drained in the east.

TABLE 3-3
SOIL DESCRIPTIONS
MERCED COUNTY, SANTA NELLA AND VOLTA COMMUNITIES

Map Unit Name and Profile	*Slope*	*Natural Drainage Class*	*Runoff Class*	*Farmland Classification*
Woo-Anela-Urban land, sandy clay loam, loam and stratified gravelly loamy sand to gravelly sandy loam	0-2%	Well drained	Medium	Not prime farmland
Arbuckle variant sandy loam, sandy loam, gravelly sandy clay loam, very gravelly loamy coarse sand	0-2%	Well drained	Medium	Prime farmland if irrigated
Dosamigos clay loam, clay loam	0-2%	Somewhat poorly drained	Very High	Farmland of statewide importance
Pedcat clay loam, leveled, clay, stratified sandy clay loam to clay	0-2%	Poorly drained	Very High	Not prime farmland

Santanela loam, loam and sandy loam	0-2%	Very poorly drained	High	Not prime farmland

Natural Resources Conservation Service -USDA Merced County California, Western Part 2016

Woo-Anela-Urban land. This nearly level soil is located in and near the Community of Santa Nella west of Interstate 5. This soil is formed on alluvial fans and consists of Woo Sandy clay loam, Anela gravelly loam and Urban land. Flooding is rare, and this soil is deep and well drained. Runoff is slow and hazard to water erosion is slight. The depth to the water table is more than 80 inches.

Woo sandy clay loam. This soil unit is located east of I-5 and extends approximately 0.25 miles east along Henry Miller Avenue and then another 0.37 miles along Henry Miller to Cherokee Road. This level soil is formed on alluvial fans and consists of sandy clay loam, loam and stratified gravelly loamy sand where there may be a rare period of flooding. This soil is deep and well drained and has a moderate shrink-swell potential. Runoff is medium and hazard to water erosion is slight. The depth to the water table is more than 80 inches.

Arbuckle variant sandy loam. This soil type is extends east of the Outside Canal for approximately 1.55 miles along Henry Miller Avenue. This soil is formed on gravelly alluvium derived from various rocks and consists of Bapos sandy clay loam, Woo Sandy Clay and Woo Clay Loam where there is a rare period of flooding. This soil is deep and well drained. Runoff is slow and hazard to water erosion is slight. The depth to the water table is more than 80 inches.

Dosamigos clay loam. This soil type is located east of the Arbuckle variant sandy loam soil type, approximately 1.9 miles east of I-5, and extends approximately 0.81 miles east along Henry Miller Avenue. This level soil is formed on alluvial fans and consists of clay loam where there is a rare potential for flooding. This soil is very deep and somewhat poorly drained. Runoff is fairly high and hazard to water erosion is slight. The depth to the water table is more than 80 inches.

Pedcat clay loam. This level soil is found east of the Dosamigos Clay Loam unit and extends approximately one mile traveling along Henry Miller Avenue and into the community of Volta. It is the soil type where the proposed Well #2 will be located. This level soil is formed on alluvial fans and consists of Vernalis loam, Ballvar loam and Mollic Xerofluvents where there is a rare potential for flooding. This soil is very deep and poorly drained. Runoff is very high and hazard to water erosion is moderate. The depth to the water table is zero inches.

Santanela loam. This level soil is found east of Pedcat clay loam and north of the identified wetland area, as discussed in Section 3.4 Biology, along Henry Miller Avenue; it extends approximately 0.25 miles east. This level soil is formed in mixed alluvium derived dominantly from sedimentary rock. It consists of Triangle Clay and Triangle Clay, sodic, Turlock sandy loam and Britto clay loam. This soil is very deep and very poorly drained. Runoff is high and hazard to water erosion is slight. The depth to the water table is approximately zero inches.

a-1) Fault Rupture Hazards.
There are no active or potentially active faults located within or near the project area, nor are there Alquist-Priolo zones. The project would have no impact related to fault rupture.

a-2, 3) Seismic Hazards.
The project area, along with the rest of the County, is subject to seismic shaking from fault features located to the east and west of the County. Proposed water system improvements would incorporate engineering design features that would be in accordance with the standard engineering practices and the adopted California Building Code, which contains design criteria for seismic shaking.

According to the most recent groundwater level monitoring available from the California Department of Water Resources Merced County, groundwater is less than 10 feet below ground surface in the project vicinity (California Department of Water Resources 2010). Soils data indicates that soils in the eastern portion of the project area may be saturated to or near the surface and poorly drained. This plus the sandy character of the soils indicates that the project area may be susceptible to liquefaction. Implementation of the following mitigation measure would identify potential liquefaction hazards and account for any such hazards in project design and construction. With this mitigation, the potential for liquefaction impact would be reduced to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

GEO-1. A site-specific, design-level soils study shall be completed for the project site during project design. The study shall include an evaluation of liquefaction potential and other geologic hazards in the construction area and identify appropriate means to minimize or avoid damage from such hazards. In addition, the study shall identify the presence of expansive soils in the construction area and recommend design and construction features to reduce the potential impact of these soils on project facilities. Design recommendations included in the study shall be implemented during project design and construction.

Significance After Mitigation: Less than significant

a-4) Landslides.
The project area is in a topographically flat area, which is not subject to landslides. The project would have no impact on this issue.

b) Soil Erosion.
Most soils in the project area have a low potential for erosion. However, project construction activities would temporarily loosen soils within the construction area,

leaving them exposed to potential water and wind erosion. Project design and specifications would include requirements for placement and compaction of excavated soils following construction. Required compliance with SJVAPCD Regulation VIII, which is discussed in Section 3.3, Air Quality, would also reduce potential erosion impacts.

In addition, the project would be required to comply with the provisions of the Construction General Permit, issued by the State Water Resources Control Board (SWRCB). The Construction General Permit is required for all projects that disturb one acre of land or more. The permit requirements include preparation of a Storm Water Pollution Prevention Plan (SWPPP) by a Qualified SWPPP Developer (QSD) to address potential water quality issues. The SWPPP includes implementation of Best Management Practices to avoid or minimize adverse water quality impacts. Best Management Practices fall within the categories of Temporary Soil Stabilization, Temporary Sediment Control, Wind Erosion Control, Tracking Control, Non-Storm Water Management, and Waste Management and Materials Pollution Control. Only Best Management Practices applicable to the project would become part of the SWPPP. Compliance with the Construction General Permit would minimize the amount of potential soil erosion and sediment that leaves the construction site. Soil erosion impacts would be less than significant with the mitigation measures prescribed in Section 3.9.

c) Geologic Instability.
The soils underlying the sites where the facilities would be constructed have not been identified as inherently unstable or prone to failure. Existing facilities have not had an adverse effect on soil stability identified with them, and the project would not change existing stability conditions. Preparation of the soils study required in Mitigation Measures GEO-1 and design in accordance with the recommendations of the soils study would avoid potential adverse effects in this issue area.

d) Expansive Soils.
The shrink-swell potential of the soils in the project area is moderate. Expansive soils can lead to damage of pipelines and other facilities if not addressed. Implementation of Mitigation Measure GEO-1, described above, would identify expansive soil impacts and require implementation of recommended engineering measures, thereby reducing impacts to a level that would be less than significant.

e) Adequacy of Soils for Wastewater Disposal.
The project would not use, and does not propose to install, any septic systems. The project would have no impact related to this issue.

3.7 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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?				√

NARRATIVE DISCUSSION

Environmental Setting

Greenhouse gases (GHGs) are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. GHGs are both naturally occurring and are emitted by human activity. GHGs include carbon dioxide (CO_2), the most abundant GHG, as well as methane, nitrous oxide and other gases. GHG emissions in California in 2014 were estimated at 441.5 million metric tons carbon dioxide equivalent (CO_2e) – a decrease of 9.4% from the peak level in 2004. Major GHG sources in California include transportation (36%), industrial (21%), electric power (20%), commercial and residential (9%), and agriculture (8%) (ARB 2016).

Increased atmospheric concentrations of GHGs are considered a main contributor to global climate change, which is a subject of concern for the State of California. Potential impacts of global climate change in California include reduced Sierra Nevada snowpack, increased wildfire hazards, greater number of hot days with associated decreases in air quality, and potential decreases in agricultural production (Climate Action Team 2010). Unlike the criteria air pollutants described in Section 3.3, Air Quality, GHGs have no "attainment" standards established by the federal or State government. In fact, GHGs are not generally thought of as traditional air pollutants because their impacts are global in nature, while air pollutants mainly affect the general region of their release to the atmosphere (SJVAPCD 2015b). Nevertheless, the U.S. Environmental Protection Agency (EPA) has found that GHG emissions endanger both the public health and public welfare under Section 202(a) of the Clean Air Act due to their impacts associated with climate change (EPA 2009).

The State of California is identifying strategies and implementing GHG emission reduction programs through AB 32, the Global Warming Solutions Act of 2006, which requires total statewide GHG emissions to reach 1990 levels by 2020, or an approximately 29% reduction from 2004 levels. In compliance with AB 32, the State adopted the Climate Change Scoping Plan in 2008, and updated the plan in 2014.

Primary strategies addressed in the original Scoping Plan included new industrial and emission control technologies; alternative energy generation technologies; advanced energy conservation in lighting, heating, cooling and ventilation; fuels with reduced carbon content; hybrid and electric vehicles; and methods for improving vehicle mileage (ARB 2008). The 2014 update highlighted California's progress toward meeting the 2020 GHG emission reduction goal and established a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050 (ARB 2014).

In 2016, the State Legislature passed and the Governor signed Senate Bill (SB) 32. SB 32 extends the GHG reduction objectives of AB 32 by mandating statewide reductions in GHG emissions to levels that are 40% below 1990 levels by the year 2030. The State is currently in the process of preparing a Climate Change Scoping Plan that incorporates the SB 32 target.

The SJVAPCD adopted a Climate Change Action Plan in 2008 and issued guidance for development project compliance with the plan in 2009. The guidance adopted an approach that relies on the use of Best Performance Standards to reduce GHG emissions. Projects implementing Best Performance Standards would be determined to have a less than cumulatively significant impact. For projects not implementing Best Performance Standards, demonstration of a 29% reduction in project-specific (i.e., operational) GHG emissions from business-as-usual conditions is required to determine that a project would have a less than cumulatively significant impact (SJVAPCD 2009).

Environmental Impacts and Mitigation Measures

a) Significance of GHG Emissions.
Based on results from the RCEM run (see Section 3.3, Air Quality), potential construction GHG emissions would amount to 301.0 tons CO_2e for the assumed construction period of four months. Construction emissions would be limited to a short time period and would cease once work is completed. In addition, implementation of Mitigation Measure AIR-1 would reduce the amount of GHGs generated by project construction. Upon completion of construction work, the project would not generate any GHG emissions, either directly or indirectly. Project impacts on GHG emissions are considered less than significant.

b) Consistency with GHG Reduction Plans.
Project operations would not generate new GHG emissions. The project is intended to reinforce existing public water system operations, which would include the installation of new and more energy-efficient equipment. As a result, the project would have no impact related to the GHG reduction objectives of the State's Climate Change Scoping Plan and the SJVAPCD's Climate Change Action Plan.

3.8 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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 for people residing or working in the project area?				√
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				√
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		√		
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				√

NARRATIVE DISCUSSION

Environmental Setting

This section focuses on hazards associated with hazardous materials, proximity to airports, and wildfires. Geologic and soil hazards are addressed in Section 3.6, Geology and Soils, and potential flooding hazards are addressed in Section 3.9, Hydrology and Water Quality.

Data on hazardous material sites are kept in the GeoTracker database, maintained by the State Water Resources Control Board (SWRCB), and in the EnviroStor database, maintained by the California Department of Toxic Substances Control (DTSC). Both GeoTracker and EnviroStor provide the names and addresses of hazardous material sites, along with their cleanup status. A search of EnviroStor indicated no record of active hazardous material sites (i.e., sites not cleaned up) within the project area. A search of GeoTracker indicated one cleanup site that was open and under remediation, near Volta, and four that were closed. None of these sites are located on or adjacent to the project site.

The active cleanup site is located at a private residence in the Volta Community approximately 0.6 miles east of the proposed new Well #2. The records for this site indicates in 1998 one fuel underground storage tank (UST) was removed, and significant local soil and groundwater contamination was noted. In 2004 site assessment began and led to monitoring wells being installed in 2005. Monitoring data indicate that contamination does not extend beyond the site boundaries. In 2006 clean-up began in the form of over-excavation of impacted soil and ex-situ bio-remediation of the soil. The next step stated in the Geotracker records is to finalize a Corrective Action Plan. The site notes that some remediation effort took place February 29, 2016 (SWRCB 2016).

Four other leaking underground storage tank (LUST) clean-up sites were identified adjacent to Santa Nella Boulevard, north of Henry Miller Avenue and west of Interstate 5. All of these sites are located at fueling stations; the status for all four is "Completed" and "Case Closed." No other open cleanup projects were found on record in the project vicinity. These four sites, however, are active fueling operations, have permitted USTs and will continue to require the use and storage of materials considered hazardous .

The remainder and majority of the project area is predominantly agricultural in use. Agricultural operations in nature may involve the use of pesticides and herbicides whose residues may have accumulated in the soil, but there is no available record of contamination in the project vicinity.

Wildland fires are an annual hazard in Merced County. Wildland fires burn natural vegetation on undeveloped lands and include rangeland, brush, and grass fires. Long, hot, and dry summers with temperatures often exceeding 100°F add to the County's fire hazard. Human activities are the major causes of wildland fires, while lightning causes the remaining wildland fires. High hazard areas for wildland fires are the grass-covered areas in the east and the southwest foothills of the County. The project area is not within these areas.

Environmental Impacts and Mitigation Measures

a) Hazardous Materials Transportation, Use and Storage.
The proposed project will not require any substantial transportation, use or storage of hazardous materials. Construction activities may involve the use of hazardous materials such as fuels and solvents, and thus create a potential for hazardous material spills. Construction and maintenance vehicles would transport and use fuels in ordinary

quantities. Fuel spills, if any occur, would be minimal and would not have significant adverse effects. Contractors typically have absorbent materials at construction sites to clean up minor spills. Other substances used in the construction process would be stored in approved containers and used in relatively small quantities, in accordance with the manufacturers' recommendations and/or applicable regulations. Project impacts are considered less than significant in this issue area.

b, c) Release of Hazardous Materials.
The project will not involve the use of hazardous materials after project completion; thus, there would be no known potential for releases of hazardous materials. The Volta Elementary School is located less than one-quarter mile from the proposed new well along Ingomar Grade. However, the proposed project and related facilities would not emit hazardous materials of any type; therefore, the project would have no potential for impact on the school.

d) Hazardous Materials Sites.
California Department of Toxic Substances Control EnviroStor database lists no sites in the project area. As a result, there are no sites on or near the project site that are included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

As previously noted, a search of the GeoTracker databases identified one active hazardous material site approximately 2400 feet southeast of the proposed well in the community of Volta. The contaminated site was once a gas station and is now a private residence and cleanup and remediation has been ongoing since 1998. Detection of hazardous contamination was never located further then 250 feet from the original LUST location, and site testing shows that contamination is decreasing over time and with the excavation of contaminated soil. This site is not located within the project right-of-way and does not involve concern related to the proposed pipeline excavation or well; the well will be located approximately 2,150 feet northwest of the closest portion of the contaminated area. Four other LUST cleanup sites were located in the project vicinity, all of which have been completed and closed. The project will have no effect in this issue area. The project will not expose construction workers or members of the public to any area of known environmental contamination.

e, f) Airport and Airstrip Operations.
A review of aerial photographs in Google Earth revealed no public use airports or private airstrips within two miles of the project area. The project would have no impact on this issue.

g) Emergency Response and Evacuation.
Construction of the project would involve work adjacent to Henry Miller Avenue, which is a road used by emergency vehicles and would likely be a potential evacuation route. In addition, the project would require work within road rights-of-way, which could potentially obstruct traffic.

Construction work would be of temporary duration, and project operations would not obstruct any roads any more than temporarily. Road obstruction during construction could involve impacts on emergency vehicle access and evacuation. Mitigation presented below would ensure that adequate access would be maintained during construction at the crossings, thereby reducing potential impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

HAZ-1. Prior to the start of project construction along roadways, the contractor shall develop and implement a Traffic Control Plan. The Traffic Control Plan shall include such items as traffic control requirements, resident notification of access closure, and daily access restoration. The contractor shall specify dates and times of road closures or restrictions, if any, and shall ensure that adequate access will be provided for emergency vehicles. The Traffic Control Plan shall be reviewed and approved by the County Department of Public Works and shall be coordinated with the Merced County Sheriff's Department and the Merced County Fire District.

Significance After Mitigation: Less than significant

h) Wildland Fire Hazards.
The project area is not located in a region susceptible to wildfires. Land in the area is agricultural or developed, and neither use has a high wildfire potential. The project would have no impact on this issue.

3.9 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?				√
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			√	

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			√	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				√
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems?				√
f) Otherwise substantially degrade water quality?		√		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				√
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				√
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a levee or dam?			√	
j) Inundation by seiche, tsunami, or mudflow?			√	

NARRATIVE DISCUSSION

Environmental Setting

Surface Water

Surface water in the proposed area includes rivers and creeks, irrigation canals and a reservoir. Santa Nella and most of the project area are located within the natural drainage area of San Luis Creek, tributary to Los Banos Creek. The Volta area is within the Los Banos Creek drainage area, which is tributary to Mud Slough and the San Joaquin River near Gustine. The proposed pipeline alignment is adjacent to a marsh area about 05. Miles east of the Main Canal, and an open pond known locally as "The Duck Pond" is divided by Henry Miller Avenue just west of Volta. The proposed pipeline alignment, which is located within the raised County road right-of-way does not encroach on either of these natural water features.

Surface waters in the project vicinity have been extensively altered in conjunction with the development of the Central Valley Project including the Delta Mendota Canal (CVP), the State Water Project (California Aqueduct) and local irrigation canals and other facilities owned and operated by the Central California Irrigation District (CCID).

San Luis Reservoir, a major storage facility jointly operated by the CVP and State Water Project, is located approximately 3 miles to the west of Santa Nella; the O'Neill Forebay, between San Luis Reservoir and Santa Nella, receives flows from both the California Aqueduct and the Delta Mendota Canal and provides a forebay for pumping of these waters into San Luis Reservoir. The California Aqueduct and Delta Mendota Canal are located a mile or more west of Santa Nella. The San Luis Wasteway connects the O'Neill Forebay with the Volta Duck Ponds and provides one or four facilities for drainage of the Delta-Mendota Canal if and when needed. The Wasteway is adjacent to the SNCWD facility west of Santa Nella Boulevard and parallels Henry Miller Avenue along its north side for most of the proposed pipeline alignment.

CCID receives irrigation water from the Delta Mendota Canal and distributes it to agricultural lands in the project vicinity and elsewhere via the Main Canal, the Outside Canal and other smaller facilities. The Outside Canal and the Main Canal cross Henry Miller Avenue and the proposed pipeline alignment approximately 0.25 and 1.9 miles east of I-5, respectively.

The project area is essentially flat; elevation contour lines and the land slope generally trend east and north. The highest elevation is at the western end of the project at approximately 150 feet above mean sea level; the lowest lying portion of the project is near Volta at an elevation of approximately 100 feet msl.

Runoff from Santa Nella is collected and drains into San Luis Wasteway. No engineered stormwater facilities are located within the proposed pipeline alignment along Henry Miller Avenue or within the community of Volta. Drainage from these areas either percolates in the ground or flows to roadside ditches.

Groundwater

The proposed project is located in the San Joaquin Valley Groundwater Basin, the largest groundwater basin in the state. The groundwater in the project area generally follows the surface topography, gradually sloping from west to east. Within the project area, groundwater is shallow, ranging from 10 to 20 feet below the ground surface, with the deeper groundwater located in the western portion of the project area. The CCID reports groundwater depths along the Outside Canal at between 8 and 16 feet. Groundwater becomes more shallow with distance east of Santa Nella; in and around Volta the groundwater is at or just below the ground surface. Groundwater levels can be influenced by subsurface groundwater flow from areas of higher elevation to the west and by local irrigation practices. The SNCWD and the VCSD obtain potable water supply from existing wells; the SNCWD also receives and treats surface water from the San Luis Water district.

Flooding Hazards

According to a Flood Insurance Rate Map prepared by the Federal Emergency Management Agency (FEMA), the project area lies within an area classified entirely as

Zone X. Zone X denotes areas determined to be outside the 100-year annual floodplain (FEMA 2014).

There are eleven reservoirs within or adjacent to Merced County that would generate significant flooding in the event of catastrophic dam failure (Merced County Background Report 2030). The project site is within the potential inundation area of three of these facilities: 1) San Luis Reservoir, 2) O'Neill Forebay, and 3) Los Banos Creek Detention Reservoir. The San Luis and O'Neill Forebay facilities are located two and five miles west of the SNCWD site, respectively.

Environmental Impacts and Mitigation Measures

a,c) Waste Discharge Requirements.
The proposed project would not involve any wastewater generation or impact on wastewater systems and would therefore not violate waste discharge requirements. The project would not involve any substantial changes to existing drainage patterns or surface water resources. Construction disturbance would involve potential for increases in erosion and sediment runoff, as described in subsection "e;" with implementation of existing water quality control requirements, potential erosion effects would be reduced to a less than significant level. Following construction, the various elements of the project site would be restored to approximate their pre-project condition. The project would have a less than significant effect in this issue area.

b) Groundwater Supplies.
The project is the improvement of existing potable water infrastructure in the Santa Nella and Volta communities, which includes drilling of a new Well #2 to supplement the existing surface and groundwater supplies for the two drinking water systems. Well #2, to be located adjacent to the Volta community, would have a design capacity of 600 gpm, which will supplement the existing yields of the SNCWD Well #1 (150 gpm) in order to meet the identified Maximum Daily Demand for the combined systems. The existing Volta well will be disconnected from the system and destroyed as described in Section 2.4 of this document.

The project will not involve a substantial increase in groundwater extraction or impact on existing groundwater supplies. Demands from the Santa Nella community are currently met by Well #1 and surface water supplies. Well #2 would augment this supply, reducing demand on the older and less reliable Well #1 and drawing from the new Well #2, which is located in an area of relative groundwater abundance and improved water quality. Current and future water demands generated by the Volta community would continue to be met by production from the new source, Well #2. The existing Volta well would be decommissioned.

The project would not involve any substantial effect on groundwater recharge. Construction of new blending, storage and pumping facilities at the SNCWD and Well #2 sites would involve incidental increases in impervious area in the project area as a whole. The proposed pipeline alignment would be returned to its approximate existing condition upon completion of the project and would not result in an increase in impervious area.

The Well #2 design is based on 2016 pump testing that indicated that the 600 gpm production objective can be met with minimal drawdown. As a result, the project would not involve a significant effect on aquifer volume or a lowering of the local groundwater table. Water quality sampling indicates that water from Well #2 would not involve exceedence of any of the primary Maximum Contaminant Levels, including the hexavalent chromium and TTHM constituents of concern.

d,e,g,h) Flooding and Storm Drainage.
The project is not located within an area susceptible to 100-year flooding, is not within a floodway and does not involve construction of housing. The project involves the construction of primarily underground water infrastructure in existing road rights-of-way and developed areas and would not affect drainage patterns or generate any substantial amount of new runoff within the alignment area. The project would have no impact on this issue.

f) Water Quality.
The potential surface water quality impacts of the project are related to erosion and sedimentation during the construction phase. While the project area does not contain soils that are highly erodible, there remains the potential that sediment from the site could be transported off the site during a storm event.

Proposed Well #2 would be constructed to applicable State and County well and drinking and water standards. Well construction and operation therefore would not involve an adverse effect on groundwater quality.

The State Water Resources Control Board has established a construction General Permit that is applicable to most construction activities in the state, including the proposed project. Projects that disturb more than one acre of land during construction are required to file a Notice of Intent to be covered under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharges of storm water associated with construction activities. The NPDES construction permit requires implementation of a Storm Water Pollution Prevention Plan (SWPPP) that includes storm water Best Management Practices to control runoff, erosion, and sedimentation from the site both during and after construction. Proposed projects may obtain NPDES permit coverage by filing a Notice of Intent to be covered under the NPDES General Permit. Although soil erosion potential during project construction is not expected to be substantial, construction activities would disturb more than an acre and an NPDES General Construction Permit would be required. Implementation of the following mitigation measure will ensure that potential water quality impacts of the proposed project will be reduced to a less than significant level.

Level of Significance: Potentially significant

Mitigation Measures:

HYD-1. Prior to construction, SNCWD or its contractor shall obtain a WDID number from the RWQCB prepare and implement a SWPPP in compliance with the General Permit. The SWPPP shall include best management practices that will be utilized to minimize erosion potential and conveyance of eroded soils off of the project site or into on-site surface water features. Best management practices included in the SWPPP shall be included as contractor work specifications.

Significance After Mitigation: Less than significant

i) Dam and Levee Failure Hazards.
The project site would be exposed to flooding in the event of a catastrophic failure of San Luis, O'Neill Forebay or the Los Banos Creek reservoirs. Risk of failure of these facilities is considered low. The project does not, however, include habitable structures and would not be an attractor to concentrations of people who would be at risk in the event of reservoir failure. Consequently, the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving flooding as a result of the failure of dam and the project would have a less than significant effect this issue area.

j) Seiche, Tsunami and Mudflow Hazards.
The project is located in a topographically flat area, generally distant from large bodies of water; therefore, the project would not experience seiche, tsunami or mudflow hazards other than as may be related to failure of dams described above. Due to its size San Luis Reservoir is considered subject to seiche hazards. The project would have a less than significant effect in this issue area.

3.10 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				√
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				√
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?				√

NARRATIVE DISCUSSION

Environmental Setting

The proposed project is set in the largely rural and agricultural western portion of Merced County. The agricultural nature and productivity of the area is described in more detail in Section 3.2. The unincorporated communities of Santa Nella and Volta are the principal developed areas in the project vicinity.

Existing and future land uses in the project area are prescribed by the Merced General Plan 2030. The approximately 5-mile area separating Santa Nella and Volta is designated and zoned for agricultural use, and agriculture is the principal land use in this area, which also contains some agricultural processing facilities as well as irrigation canals.

Existing land uses in Santa Nella are predominantly residential in the southwestern portion of the community west of Santa Nella Boulevard. The northern portion of the community, which surrounds the I-5/Santa Nella Boulevard interchange is dominated by highway-serving commercial uses such as fueling stations, retail stores, restaurants and hotels. A golf course and potable water and wastewater treatment facilities are also located in the community.

The current Merced County General Plan 2030 has designated the Santa Nella community as an area of future growth totaling approximately 2,559 acres. The General Plan incorporates the approved land uses of the approved Santa Nella Community Specific Plan (Santa Nella CSP 2000). The community is designated and zoned to provide for the ultimate buildout of the approved land uses, which include:

Low-Density Residential	5,181 Units
Golf Course Residential	74 Units
Medium Density Residential	878 Units
Possible High Density Residential	400 Units
Existing Residential	350 Units
Commercial	2.2 million SF
Industrial	3.0 million SF
Office	396,000 SF

Planned future development will require incremental improvement of water, sewer, storm drainage and other infrastructure as well as modification of the organization and responsibilities of public service agencies. One or more Development Agreements would be required in order to implement these plans.

Existing land uses in Volta are primarily residences. Volta Elementary is located at the west end of town adjacent to Henry Miller Avenue. The Morningstar Packing Company is located immediately east of Volta Road.

The Volta community is designated by the Merced County General Plan 2030 as a Rural Center. Rural Centers are areas with small concentration of rural populations in

relatively isolated parts of the County. These areas lack public sewer and/or water systems, have a stable or declining population, and have a limited level of public and commercial services. Rural Centers provide locations for agricultural services, farm support operations, and convenience commercial services for adjacent agricultural operations and rural populations. While new residential uses are discouraged in Rural Centers, these areas do include some existing very low-density, large-lot rural neighborhoods. The County may allow some limited new housing in these areas that supports agricultural-based employment and services; however, new housing will not exceed a density of one dwelling unit per acre.

Environmental Impacts and Mitigation Measures

a) Division of Established Communities.
Proposed project facilities are located within the communities of Santa Nella and Volta and along Henry Miller Avenue, which connects the two communities. The project proposes improvements to existing water facilities that would support ongoing community functions; the project would not construct any new facilities that could interfere with community functions or potentially divide the community. The project would have no impact related to this issue.

b) Conflict with Applicable Plans, Policies and Regulations.
The project proposes a new well in the community of Volta, a new water line connecting the communities of Santa Nella and Volta and blending and storage facilities that would improve water quality and service existing and future land uses in both communities. Proposed improvements would not conflict with existing or future land use plans related to these communities, as described above. The project would not create an inconsistent land use based on zoning, as the project would not affect existing land uses. The majority of the project would be located primarily in public right-of-way, which is not zoned.

c) Conflict with Habitat Conservation Plans.
As discussed in Section 3.4, Biological Resources, Merced County does not have a Habitat Conservation Plan. Therefore, the project would involve no potential conflicts with Habitat Conservation Plans. The project would require permits and approvals that typically have conditions attached that are designed to reduce impacts on affected biological resources.

3.11 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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?				√

NARRATIVE DISCUSSION

Environmental Setting

Merced County's primary mineral resources are construction sand and gravel. Approximately 24,320 acres of aggregate resource areas have been identified in 10 aggregate resource areas within the County by the California Division of Mines and Geology (Merced County 2012).

The California Division of Mines and Geology, now part of the California Geological Survey, has classified portions of the state into Mineral Resource Zones (MRZs). The lands within the project area are not classified as being within a MRZ, indicating that no significant mineral deposits have been identified within the project area.

Environmental Impacts and Mitigation Measures

a, b) Loss of Mineral Resource Availability.
There are no identified mineral resources areas located in or adjacent to the project area. Therefore, the project would have no effect on the availability of or access to locally designated or known mineral resources. The project would have no impact on mineral resources.

3.12 NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			√	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			√	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				√
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		√		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of				√

a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				√

NARRATIVE DISCUSSION

Environmental Setting

Sound is defined as any pressure variation in air that the human ear can detect. To provide a manageable way to measure sound, the decibel (dB) scale was devised. The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by the A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives noise.

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state, A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The L_{eq} shows very good correlation with community response to noise.

The project area is currently composed primarily of agricultural, residential, commercial and institutional uses. The existing ambient noise environment in the project area is defined primarily by traffic on Interstate 5 and local surface roadways, although agricultural activities produce intermittent localized noise during the growing season. The Merced County General Plan Background Report indicates that ambient noise levels in rural communities are in the range of 50 dBA Ldn. In Santa Nella, where ambient noise levels are subject to more influence from traffic on I-5, monitoring data indicates ambient noise levels are in the range of 55 dBA Ldn. Within approximately 1,200 feet of the I-5 freeway, noise levels range upward from 60 dBA to over 65 dBA within 600 feet of the freeway. Along Henry Miller Avenue, traffic noise may exceed 60 dBA in the immediate vicinity of the road.

The Morningstar tomato processing facility is located east of Volta Road at the existing Volta well site. During peak harvest season from July to October, the plant operates 24 hours a day, seven days a week and 16 hours a day, five days a week off peak months. Noise producing equipment at the facilities includes turbines, boiler fans, motors, steam values, and pumps. The Plant has had minor complaints about noise levels, but levels are in compliance with County standards.

The Merced County 2030 General Plan Noise Element provides a basis for local policies to control and abate environmental noise, and to protect the citizens of Merced County from excessive noise exposure (Merced County 2013). The County also enforces its Noise Ordinance (Chapter 10.60, Noise Control) in the County Code. This ordinance contains noise level standards for residential and non-residential land uses. Specifically, the County Code sets 65 dBA Ldn and 75 dB Lmax standards for residential property, with standards applicable to nonresidential properties 5 dB higher (Chapter 10.60.030). According to County Code (Chapter 10.60.040), construction activities that include the operation of any tools or equipment used during construction, drilling, earth moving activities, excavating, or demolition are prohibited from 6:00 p.m. to 7:00 a.m. the following day on weekdays. They are also prohibited at any hour during weekend days or legal holidays, except for emergency work.

Environmental Impacts and Mitigation Measures

a) Exposure to Noise Exceeding Local Standards.
Noise-sensitive land uses in the immediate project vicinity include a few existing residences in Volta and along the remainder of the pipeline alignment alignment. These uses would be affected only by noise from project construction activities. There are no sensitive receptors in the vicinity of the new Well #2 or the SNCWD blending and pumping facilities.

Construction activities would expose residents within the short-term noise impacts. Earthmoving and excavation would be the primary construction activities; therefore, equipment likely to be used would include dozers and excavators. Based on the equipment anticipated to be used, construction of proposed facilities and improvement may generate maximum noise levels ranging from 78 to 81 dBA at a reference distance of 50 feet (FHWA 2006). Noise essentially decreases by 6 dBA with every doubling of distance from a source (Harris 1991). For example, if the noise from an industrial engine is 81 dBA at 50 feet, the noise at 100 feet would be 75 dBA, and at 200 feet would be 69 dBA.

Construction noise is a short-term occurrence that does not result in significant or long-term effects, provided that sleep interruption is not involved. Construction activities are anticipated to occur during the hours of 6:00 am to 9:00 pm, in accordance with the exemption to construction noise provided in County Ordinance Code Section 9-1025.9. Nevertheless, residences near the pipeline alignment would most likely be exposed to elevated noise levels resulting from project construction, which is considered a significant impact. Mitigation described below would reduce noise from construction equipment to levels considered less than significant.

Operation of new pumping equipment at the SNCWD headquarters and at the new Volta well site have the potential to cause noise impacts on nearby residences in Santa Nella and on the adjoining elementary school in Volta. Potential impacts will be dependent on pump selection and placement. Potentially significant noise impacts in Santa Nella could be reduced to a less than significant through placement and if necessary installation of noise-reducing equipment, buildings or barriers. Noise from the Volta well could be

addressed with pump selection, such as the use of a submersible pump, or enclosure of the pumping equipment. These determinations will need to be made during engineering design.

Level of Significance: Potentially significant

Mitigation Measures:

NOISE-1: All equipment used on the construction site shall be fitted with mufflers in accordance with manufacturers' specifications. Mufflers shall be installed on the equipment at all times on the construction site.

NOISE-2: Proposed pumping equipment shall be selected and installed so that Merced County noise standards for residences and schools are not exceeded.

Significance After Mitigation: Less than significant

b) Groundborne Vibration.
Groundborne vibration is not a common environmental problem. It is typically associated with transportation facilities, although it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving and operating heavy earth-moving equipment.

The project would likely use excavation and trenching equipment during construction, which are not typically associated with significant vibration effects. Given the short-term duration of construction work, project impacts related to groundborne vibrations are considered less than significant.

c) Permanent Increase in Ambient Noise.
There would be no substantial increase in noise levels from project operations after proposed improvements. Improved facilities at the SNCWD blending and pumping facilities and at the new Well #2 would not involve any significant changes in noise levels. The project would have no impact on ambient noise levels.

d) Temporary or Periodic Increase in Ambient Noise.
The project would generate a temporary increase in ambient noise from construction activities as discussed above. However, Mitigation Measure NOISE-1, described in Subsection a) above, would reduce construction noise impacts to levels that would be less than significant.

e, f) Exposure to Airport/Airstrip Noise.
As noted in Section 3.8, Hazards and Hazardous Materials, there are no public airports or private airstrips in the vicinity. The project would have no impact on this issue.

3.13 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			√	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				√
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				√

NARRATIVE DISCUSSION

Environmental Setting

As of January 1, 2016, the population of Merced County was estimated at 255,793, of which 147,622 resided in the unincorporated area (California Department of Finance 2016). Both Santa Nella and Volta are unincorporated communities.

Santa Nella includes a mix of primarily highway-serving commercial and residential use. The posted population of Santa Nella is approximately 1,300. The 2000 Santa Nella Community Plan estimated an existing population of 800 residents and approximately 350 dwelling units within the Santa Nella community. Volta is a primarily a residential community, which is adjacent to the Morningstar tomato packing company east of Volta Road. The 2010 census population of Volta was approximately 246 persons with 83 occupied housing units.

The Santa Nella community is identified as an Urban Community in the Merced County General Plan. Urban Communities are unincorporated urban areas that have a range of housing densities and are designated for substantial future growth. The Santa Nella Community Specific Plan designates additional future residential neighborhoods in Santa Nella for development of approximately 6,483 housing units and a total future population of 18,940. Anticipated future growth would also include and estimated 5.5 million square feet of non-residential uses.

As discussed in more detail Section 3.10, development of the Santa Nella Community Specific Plan will require, among other things, substantial additional water system improvements and reorganization as well as substantial expansion of existing sewage treatment facilities. Master plans for these facilities and other infrastructure were developed in conjunction with the County's consideration of the Specific Plan but have not been implemented.

Rural Centers are areas in unincorporated Merced County that are isolated and have either a stable or declining population. These areas contain some commercial uses that support adjacent rural and agricultural uses, such as feed stores, truck/tractor repair, gas stations, and limited public services.

Only modest growth, if any, is anticipated in Volta, which is listed in the Merced County General Plan as a Rural Center. The Rural Center designation includes areas with small concentration of rural populations in relatively isolated parts of unincorporated Merced County (Merced 2030). New residential uses are discouraged in Rural Centers, however, the County may allow some limited large lot new housing in these areas that supports agricultural-based employment and services.

Environmental Impacts and Mitigation Measures

a) Population Growth Inducement.
The project would not directly induce population, as no housing or employment centers would be constructed in conjunction with the project.

The project would improve the existing potable water systems serving Santa Nella and Volta. These improvements have the potential to indirectly induce development in Santa Nella, where future population growth is expected as described in the Santa Nella Community Specific Plan. The proposed project is, however, oriented to improving water quality in the existing systems by developing a new water supply well, blending tanks and booster pumping facilities. The project would not substantially increase the capacity of the systems to serve new development. Substantial additional growth in Santa Nella is also hampered by lack of adequate sewage treatment capacity; the project would not address this need, and there is no ongoing action toward expanding sewage treatment capacity. So, while the project would improve the availability of potable water, additional water and sewage treatment improvements would be necessary to support additional growth. Therefore, project impacts on population growth are considered less than significant.

b, c) Displacement of Housing and People.
The project would not displace or otherwise affect existing housing in the project area; therefore, the project would also not displace people. The project would have no impact on this issue.

3.14 PUBLIC SERVICES

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:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?			√	
b) Police protection?				√
c) Schools?		√		
d) Parks?				√
e) Other public facilities?				√

NARRATIVE DISCUSSION

Environmental Setting

Fire protection and emergency medical services are provided by the Merced County Fire Department, which maintains a station at 29190 W Centinella Ave south of the project in the community of Santa Nella. The next closest station is located six miles southeast of the Volta community at 525 H Street, Los Banos.

Law enforcement services are provided by the Merced County Sheriff's Department. The nearest Sheriff's station is located at 445 I Street in the community of Los Banos. This station is designated to serve both the Santa Nella and Volta communities.

Elementary and high school services are provided by the Los Banos Unified School District. Volta Elementary School serves grades K-6 and is located at 24307 Ingomar Grade in the community of Volta. Volta Elementary School is adjacent to proposed Well #2 and adjacent to and south of the project pipeline alignment. Los Banos Junior High serves grades 7-8 and is located at 1750 San Luis Street in Los Banos and the San Luis High School serves students 9-12 and is located at 125 7th Street in Los Banos. According to the California Department of Education's DataQuest database, there were 401 students enrolled at Volta Elementary, 1,580 students enrolled at Los Banos Junior High and 1,440 students enrolled in the high school during the 2015-2016 school year (California Department of Education 2016.)

Parks and recreational services in the vicinity are provided by Merced County Parks and Recreation Department. There are no County parks in the project vicinity. The Santa Nella community has a public library located at 29188 West Centinella Avenue.

a) Fire Protection.
The project is the improvement of existing water systems serving the communities of Santa Nella and Volta. The project would not result in additional demand for fire protection services. New water storage facilities in Santa Nella and Volta will provide additional fire protection storage for both communities, including a substantial increase in fire storage for the Volta community. The potential impacts of these improvements are considered throughout this document; no significant effects are identified. No other new or expanded fire protection facilities that could have environmental impacts would be required; therefore, the project would have a less than significant impact on this issue.

b) Police Protection.
The project is the improvement of the Santa Nella and Volta water systems. As such, it would not create additional demand for police protection services. No new or expanded police protection facilities that could have environmental impacts would be required; therefore, the project would have no impact on this issue.

c) Schools.
The project is the improvement of water systems serving the existing Volta and Santa Nella communities. As such, the project would not create additional demand for school services. No new or expanded school facilities that could have environmental impacts would be required; therefore, the project would have no impact on this issue.

The project would involve pipeline construction along the school frontage on Ingomar Grade and could involve temporary and short-term effects on access to the school site. Preparation of the Traffic Mitigation Plan as require by Mitigation HAZ-1 would reduce this potential effect to a less than significant level.

d, e) Parks and Other Public Facilities.
The project is the improvement of a water system. As such, it would not create additional demand for parks or other public facilities. No new or expanded facilities that could have environmental impacts would be required; therefore, the project would have no impact on this issue.

3.15 RECREATION

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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?				√

NARRATIVE DISCUSSION

Environmental Setting

Merced County Parks and Recreation manages parks and recreational centers in the unincorporated County. As noted in Section 3.14, Public Services, there are no County parks in the Santa Nella and Volta communities.

In the private sector, the Santa Nella RV Park is located at 13023 CA-33 just south of the project vicinity and the Forebay Golf Course is located at 29500 Bayview Road, west of the project area. There is also a private duck club in the Volta vicinity.

On a regional scale, the Great Valley Grassland State Park is located approximately 15-miles northeast of the project vicinity and offers the largest remaining contiguous block of wetland in California.

Environmental Impacts and Mitigation Measures

a, b) Recreational Facilities.
The project is the improvement of the water systems serving the existing Santa Nella and Volta communities. As such, it would not create additional demand for recreational facilities. No new or expanded facilities that could have environmental impacts would be required; therefore, the project would have no impact on this issue.

3.16 TRANSPORTATION/TRAFFIC

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				√
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				√

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				√
d) Substantially increase hazards to a design feature (e g., sharp curves or dangerous intersections) or incompatible uses (e g, farm equipment)?				√
e) Result in inadequate emergency access?		√		
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			√	

NARRATIVE DISCUSSION

Environmental Setting

The project area is located near and crosses Interstate 5, a four-lane freeway in the Santa Nella vicinity. Interstate 5 is the major interregional route on the West Coast, connecting Los Angeles and San Diego to the south with Sacramento, Oregon and Washington to the north. State Route 33, also named Santa Nella Boulevard in the project vicinity, is a two lane north-south state highway and runs north from Ventura County through the western side of San Joaquin Valley. Henry Miller Avenue is a two-lane Merced County road that runs east west and connects the Santa Nella and Volta communities. Other County roads serving adjacent land uses throughout the project area, including Santa Nella Boulevard and Bay View Road in Santa Nella and Ingomar Grade in Volta. Locally, Santa Nella and Volta have paved street systems that provide local businesses and homes. Private roads, paved and unpaved, provide access to more rural residences and farms in the project area.

Traffic along I-5 through the project area averaged between 30,000 and 32,000 vehicles per day in 2015. Traffic along SR 33 through Santa Nella varies widely, being the most congested in the vicinity of the I-5 interchange. Traffic south of the interchange is estimated a 10,000-11,000 increasing to 13,000-14,000 in the interchange vicinity.

Traffic along Henry Miller Avenue, classified as a Major Collector, is predicted to have an average daily traffic load of 4,300 vehicles per day and to operate at Level of Service C in 2030.

Currently, there is no public transit service to Santa Nella or Volta, nor are there designated bikeways. Sidewalks provide pedestrian routes through commercial areas in Santa Nella west of I-5 that connect the fast food restaurants and other businesses in the area, and within newer single-family residential areas in the southern portion of the Santa Nella community. Railroad service is available to the Morningstar Packing facility east of Volta; however, there are no railroad tracks in the immediate project vicinity and as

noted in Section 3.8, Hazards and Hazardous Materials, there are no public airports or private airstrips in the vicinity.

Environmental Impacts and Mitigation Measures

a) Conflict with Transportation Plans, Ordinances and Policies.
The project is the improvement of existing water systems in Santa Nella and Volta. The project would involve construction along Henry Miller Avenue and other local roadways and would be drilled under Interstate 5. The project, however, would not contribute new traffic affect use of the actual roadways in the long run. The project would generate some traffic during construction activities but would generate no further traffic upon completion of improvements. The project would have no impact on traffic conditions on roads in the vicinity; therefore, it would have no impact on applicable plans, ordinances and policies related to traffic.

b) Conflict with Congestion Management Program.
The Merced County Association of Governments adopted the latest version of its Regional Transportation Management Plan in May 2016. The Regional Management Plan is designed to coordinate land use, air quality and transportation planning to reduce potential congestion from traffic generated by development. Since the project would not generate traffic, it would have no impact on activities designed to achieve the objectives of the Regional Congestion Management Plan.

c) Air Traffic Patterns.
There are no public airports in the immediate vicinity of the project. The project involves the improvement of existing; water systems therefore, it would not generate passenger air traffic or involve conflicts with airport or aircraft operations. The project would have no impact on this issue.

d) Traffic Hazards.
Other than temporary effects during construction, the project would not alter the existing road system such it would introduce hazards to traffic. Existing design features in the area would not change. The project would have no impact on this issue.

e) Emergency Access.
The project may have a temporary impact on emergency vehicle travel during construction, as discussed in Section 3.8, Hazards and Hazardous Materials. However, implementation of Mitigation Measure HAZ-1 would reduce potential impacts to a level that would be less than significant.

f) Conflict with Non-vehicular Transportation Plans.
There is no public transit in the project area, and there are no bikeways. It is possible that some sidewalks in the community of Santa Nella may be affected by project construction, however, any sidewalk that is removed would be replaced upon completion of construction activity. There are no non-vehicular transportation plans applicable to Santa Nella, Volta and the project area. Project impacts would be less than significant.

3.17 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				√
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			√	
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				√
d) Are sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				√
e) Has the wastewater treatment provider which serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				√
f) Is the project served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				√
g) Comply with federal, state and local statutes and regulations related to solid waste?				√

NARRATIVE DISCUSSION

Environmental Setting

The SNCWD provides sanitary sewer service to approximately 630 existing connections in the Santa Nella community. The community of Volta and rural areas along Henry Miller Avenue and elsewhere in the vicinity of the project are served by individual septic systems. The SNCWD has very limited sewage treatment capacity to support substantial additional growth.

As described in Chapter 2.0 Project Description and Section 3.9, Hydrology, both the communities of Santa Nella and Volta are served by potable water systems. Currently, the SNCWD provides water service to the Santa Nella community and Volta CSD serves the Volta community. Both systems have existing water quality limitations, which are described in more detail in Chapter 2.0 and Appendix A.

SNCWD owns and operates the public water system in Santa Nella. The water system serves approximately 630 service connections. SNCWD utilizes two water sources: the California Aqueduct and Well 1. Water from the California Aqueduct is treated at the SNCWD Surface Water Treatment Plant (SWTP) before delivery to customers. The SWTP is located adjacent to the San Luis Canal component of the California Aqueduct, downstream of the O'Neill Forebay and adjacent to State Route (SR) 33. The capacity of the SWTP is 0.91 million gallons per day (mgd). The treatment units have been in service for more than 20 years, have developed leaks and control valve problems, and are generally in poor condition.

SNCWD Well #1 satisfies demands for within SNCWD boundaries that are not allowed to receive water from the SWTP. Well #1 was rehabilitated in 2011, but because of the well age and conditions, the pump should be operated at 200 gpm or less. Well 1 has relatively high total dissolved solids (TDS) concentrations typically between 850 and 1,100 milligrams per liter (mg/L). Water from Well #1 is chlorinated and blended with treated surface water before delivery to consumers. Treated surface water is the source of total trihalomethanes (TTHM) that exceed the California Maximum Contaminant Level (MCL).

The Volta CSD small public water system, constructed in 1992, is served by a single 600 gpm, 40-hp well. Water is stored in a 7,500 gallon hydropneumatic tank at the well site before being discharged to the distribution system to serve 44 service connections. There is no disinfection equipment at the site, and the system does not have a back-up generator. Backup service during a power outage is via an interconnect with the adjacent Morningstar water system. The Volta well water contains hexavalent chromium at concentrations that exceed the current maximum contaminant level (MCL) of 10 ug/L (ppb).

Solid waste generated within the project area is taken to the Billy Wright Landfill, located approximately five miles south of Santa Nella. Solid waste disposal services are provided by Gilton Waste Management of Modesto.

Environmental Impacts and Mitigation Measures

a, e) Wastewater Systems.
The project does not propose any new structures or operations that would create an additional demand on wastewater. Therefore, the project would have no impact on existing wastewater system or involve a demand for individual on-site sewage disposal.

b, d) Water Systems and Supply.
The project involves improvements to the existing Santa Nella and Volta public water systems needed to maintain State drinking water standards for the communities of Santa Nella and Volta. The Volta CSD small public water system has difficulty operating and maintaining its existing system and is unable to make necessary improvements. As a part of the project, the CSD will be dissolved and its territory annexed into the SNCWD. Future service to users in both Santa Nella and Volta area will be provided by SNCWD, a large public water system.

Improvements to the combined water systems will involve construction of one new source water supply well (Well #2) and a new 200,000-gallon water tank adjacent to the community of Volta two 750,000-gallon storage and blending tanks, and new booster pump facilities at the site of the SNCWD offices in Santa Nella. As described in Chapter 2.0, the new facilities would be joined with a new 5.0-mile pipeline along Henry Miller Road. The proposed project would have a beneficial impact. The water system facilities at the existing Volta well site will be destroyed and abandoned. The potential environmental effects of the proposed work are addressed throughout this document.

c) Stormwater Systems.
The proposed project would not involve any impacts on existing storm drainage systems or require any additional storm drainage improvements. The project would have no impact on this issue.

f, g) Solid Waste Services.
The project is the improvement of existing public water systems. As such, it would not generate any substantial new demand for solid waste collection services or landfill capacity. The project would not involve impacts on any existing waste disposal facilities. The project would have no impact on this issue.

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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 would cause substantial adverse effects on human beings, either directly or indirectly?				√

NARRATIVE DISCUSSION

a) Findings on Biological and Cultural Resources.
The project's potential biological and cultural resource impacts were described in Sections 3.4 and 3.5, respectively. Although no known resources would be impacted by the project, project construction would involve the potential for impacts, and potentially significant environmental effects were identified in these issue areas. All of the potentially significant effects would be reduced to a less than significant level with the mitigation measures identified in Sections 3.4 and 3.5, which would be incorporated into the project.

b) Findings on Individually Limited but Cumulatively Considerable Impacts.
As described in this Initial Study, the potential environmental effects of the project would either be less than significant, or the project would have no impact at all, when compared to baseline conditions. Where the project involves potentially significant effects, these effects would be reduced to a less than significant level with proposed mitigation measures and compliance with required permits and applicable regulations. The potential environmental effects identified in this Initial Study have been considered in conjunction with each other as to their potential to generate other potentially significant effects. The various potential environmental effects of the project would not combine to generate any potentially significant cumulative effects. There are no other known, similar projects with which the project might combine to produce adverse cumulative impacts.

c) Findings on Adverse Effects on Human Beings.
Potential adverse effects on human beings were discussed in Section 3.6, Geology and Soils (seismic hazards); Section 3.8, Hazards and Hazardous Materials; Section 3.9, Hydrology and Water Quality (flooding); and Section 3.16, Transportation/Traffic (traffic hazards). No potential adverse effects on human beings were identified in these sections. The project would have a beneficial effect on human beings by improving the quality and quantity of the water being served to the communities of Santa Nella and Volta, and by reducing potentially adverse health effects that could result from ongoing operations of the existing public water systems.

4.0 REFERENCES

4.1 DOCUMENT PREPARERS

This IS/MND was prepared by BaseCamp Environmental for use by and under the supervision of Black Water Engineering and the Santa Nella County Water District. The following persons were involved in preparation of the IS/MND:

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4.4 PERSONS CONSULTED

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5.0 NOTES RELATED TO EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (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 will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) 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.

3) 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. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed: Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures: For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances).

Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) The checklist in CEQA Guidelines Appendix G is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

APPENDICES

The following appendices to the IS/MND are available for review at www.sncwd.com or at the SNCWD offices at 12931 S Hwy 33, Santa Nella, CA 95322

APPENDIX A	NV5 REPORT
APPENDIX B	AIR QUALITY MODELING RESULTS
APPENDIX C	BIOLOGICAL ASSESSMENT
APPENDIX D	CULTURAL RESOURCES ASSESSMENT