WELLS 81A, B, C NORTH ANTELOPE/POKER PROJECT

Initial Study/Mitigated Negative Declaration

Prepared for
Sacramento Suburban Water District

October 2021

ESA

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Acronyms and Other Abbreviations

AR-2	Agricultural-Residential - 2 Acres
ASR	Aquifer Storage and Recovery
bgs	below ground surface
BMPs	best management practices
CAL FIRE	California Department of Forestry and Fire Protection
CalGEM	California Geological Energy Management Division
C-APE	CEQA Area of Potential Effects
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CHRIS	California Historical Resources Information System
CLUP	Comprehensive Land Use Plan
CMU	concrete masonry unit
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
COLE	coefficient of linear extensibility
COMM/OFF	Commercial/Offices
DDW	Division of Drinking Water
DOGGR	California Division of Oil, Gas, and Geothermal Resources
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EFZ	Earthquake Fault Zone
EQ Zapp	California Earthquake Hazards Zone Application
ESA	Environmental Science Associates
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FRAP	Forest Resource Assessment Program
GHG	greenhouse gas

GPM	gallons per minute
HRA	health risk assessment
I-80	Interstate 80
IS/MND	Initial Study/Mitigated Negative Declaration
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MG	million-gallon
mph	miles per hour
MRDS	Mineral Resources Data System
MRZ	Mineral Resource Zone
NAHC	Native American Heritage Commission
NaOCl	sodium hypochlorite
NCIC	North Central Information System
NFHL	National Flood Hazard Layer
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
OEHHA	Office of Environmental Health Hazard Assessment
P.L.	Public Law
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PRC	California Public Resources Code
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SGA	Sacramento Groundwater Authority
SLF	Sacred Lands File
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_x	sulfur oxide
SSWD	Sacramento Suburban Water District
SVP	Society of Vertebrate Paleontology
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant

TCR	tribal cultural resource
U.S.C.	United States Code
UAIC	United Auburn Indian Community of the Auburn Rancheria
UCMP	University of California Museum of Paleontology
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VHS	vertical hollow shaft
WDL	Water Data Library

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ENVIRONMENTAL CHECKLIST

Initial Study

1. **Project Title:** Wells 81A, B, C North Antelope/Poker Project

2. **Lead Agency Name and Address:** Sacramento Suburban Water District
   3701 Marconi Ave #100
   Sacramento, CA 95821

3. **Contact Person and Phone Number:** Dave Morrow, PE
   (916) 679-3988

4. **Project Location:** Sacramento County

5. **Project Sponsor's Name and Address:** Same as above

6. **General Plan Designation(s):** COMM/OFF – Commercial/Offices

7. **Zoning:** AR-2 - Agricultural-Residential - 2 Acres

8. **Description of Project:** See Chapter 1, *Project Description.*

9. **Surrounding Land Uses and Setting:** See Chapter 1, *Project Description.*

10. **Other public agencies whose approval is required:** See Table 1-1.

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** Yes

    Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the Proposed Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages, in Chapter 2.

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial study:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

10/27/2021

Date

Dana Dean, P.E.

Printed Name

Engineering Manager

Title

CHAPTER 1
Project Description

1.1 Introduction

Sacramento Suburban Water District (SSWD) is a publicly owned and operated water utility located in Sacramento County. SSWD serves over 180,000 customers living in the Sacramento area through approximately 689 miles of water main. In 2002, SSWD was formed by the consolidation of the Arcade Water District and Northridge Water District. SSWD is regulated by the State of California Division of Drinking Water and State Water Codes, and has approximately 70 operational groundwater production wells that provide water in the District's North Service Area and South Service Area. SSWD has contractual rights to 26,064 acre-feet of surface water from the City of Sacramento water entitlement and a contract to purchase up to 29,000 acre-feet of surface water per year from the Placer County Water Agency.

This document is an Initial Study/Mitigated Negative Declaration (IS/MND) that analyzes the potential environmental impacts of the Wells 81A, B, C Antelope North/Poker Project (Proposed Project). This IS/MND is prepared in compliance with Public Resources Code Section 21000 et seq., California Environmental Quality Act (CEQA) of 1970 (as amended), and Title 14, Chapter 3 of the California Administrative Code. In accordance with the CEQA Guidelines, California Code of Regulations Title 14, Chapter 3, Section 15070, a Mitigated Negative Declaration shall be prepared if the following criteria are met:

- There is no substantial evidence that the project may have a significant effect; or
- Where there may be a potentially significant effect, revisions to the project would avoid or mitigate the effects to a point where clearly no significant effects would occur.

1.2 Report Organization

This report is organized as follows:

Chapter 1, ***Project Description***, provides an introduction to the Proposed Project and describes the existing site, Proposed Project facility improvements, construction, operation and maintenance activities, and other background information.

Chapter 2, ***Environmental Checklist***, presents the Initial Study Environmental Checklist, analyzes environmental impacts resulting from the Proposed Project, and describes the mitigation measures that would be incorporated into the Proposed Project to avoid or reduce impacts to less-than-significant levels.

1.3 Components of the Proposed Project

The Proposed Project consists of the construction of water supply well facilities to serve as replacement potable water supply sources for SSWD's North Service Area. The Proposed Project components would include:

- Three replacement water supply wells (Well 81A, Well 81B, and Well 81C).
- Above ground well equipping improvements/components (hereafter referred to as "above ground facilities"):
  - Wellheads and associated mechanical equipment.
  - An approximately 2-million-gallon (MG) potable water storage reservoir, which would be about 125 feet (diameter) by about 30 feet (height).
  - An approximately 80-foot by 30-foot building (to house mechanical, electrical, and disinfection equipment) required to operate the replacement wells.
  - An approximately 40-foot by 60-foot area for manganese treatment system.
  - A 300,000-gallon backwash settling tank, which would be about 45 feet (diameter) by about 30 feet (height).
  - An approximately 350 kW emergency natural gas generator.
  - An 8-foot-high concrete masonry unit (CMU) block perimeter wall.

The three replacement wells will be approximately 600-feet deep with an 18-inch well casing. Each well would produce approximately 1,500 to 2,000 gallons per minute (GPM) of water. The final well design will be based on actual conditions at the site as identified during drilling operations. In addition, one of the three wells would be configured for Aquifer Storage and Recovery (ASR). This would allow for ASR operations to be implemented as part of a future ASR Program that SSWD is considering. If the well that is equipped under the Proposed Project is used for ASR, this would be completed under a separate CEQA document at that time.

To secure the facility, a CMU block wall would be constructed along the three sides of the site's perimeter. An existing block wall is part of a security wall that secures SSWD's adjacent Antelope Reservoir & Booster Pump Station facility

The Proposed Project would include landscaping features and construction of a sidewalk along Antelope North Road. The improvements to the street frontage would be designed consistent with the surrounding properties.

Manganese concentrations, above the 50 parts per billion secondary maximum contaminant level set forth by the State Water Resources Control Board (SWRCB), Division of Drinking Water (DDW), have been encountered in SSWD wells located near the Proposed Project site. The Proposed Project includes facilities to for groundwater treatment to remove manganese, should it be required, prior to being introduced into the SSWD distribution system.

1.4 Project Objective

The objective of the Proposed Project is to serve as a potable water supply source for SSWD's North Service Area, replacing water supplies from aging well facilities.

1.5 Project Location and Existing Facilities

The Proposed Project site is located within the northern portion of Sacramento County, in the community of Antelope, California in unincorporated Sacramento County. The Union Pacific Railroad and Interstate 80 (I-80) are approximately 150 feet and 0.9-mile southeast, respectively, of the Proposed Project site.

The Proposed Project site is located immediately northeast of SSWD's existing Antelope Reservoir and Booster Pump Station (Antelope Facility) (at 7800 Antelope North Road in Antelope, California), on two parcels (APNs: 203-0270-001 and 203-0270-002) totaling 1.5 acres. The Antelope Facility contains drainage and utility connections. The required infrastructure for the Proposed Project will connect to the existing storm drains and sanitary sewers located within the existing Antelope Facility. See **Figure 1-1** for the location of the Proposed Project and **Figure 1-2** for the Proposed Project site. See **Figure 1-3** for the preliminary site layout for the Proposed Project.

1.6 Project Construction

The replacement wells for the Proposed Project are expected to be constructed using reverse rotary drilling method. The wells are expected to consists of a 32-inch diameter conductor casing installed to a minimum depth of 50 feet, and 8-inch diameter casing installed to an estimated depth of approximately 600 feet. Formations that are encountered will be sampled regularly during the drilling process, and selected strata will be evaluated relative to expected water quantity and quality of the individual formations. Additionally, water produced by each well will be tested after each well is constructed. Construction of above ground facilities would most likely begin after all the wells have been constructed, but some phases could overlap which would mean likely simultaneous construction of well(s) and above ground facilities.

The Proposed Project site would serve as a staging area where construction equipment and soils would be stockpiled. The adjacent Antelope Facility could assist in serving the purpose in part or in whole. The Proposed Project site would be designed to balance the required cut/fill at the site. If required, construction spoils would be hauled off-site and disposed of at an appropriate waste management facility (yet to be determined) that would meet all state and local requirements.

The project site would be cleared and grubbed prior to the beginning of construction. The site is currently vacant with no trees or shrubs.

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Wells 81A, B, C
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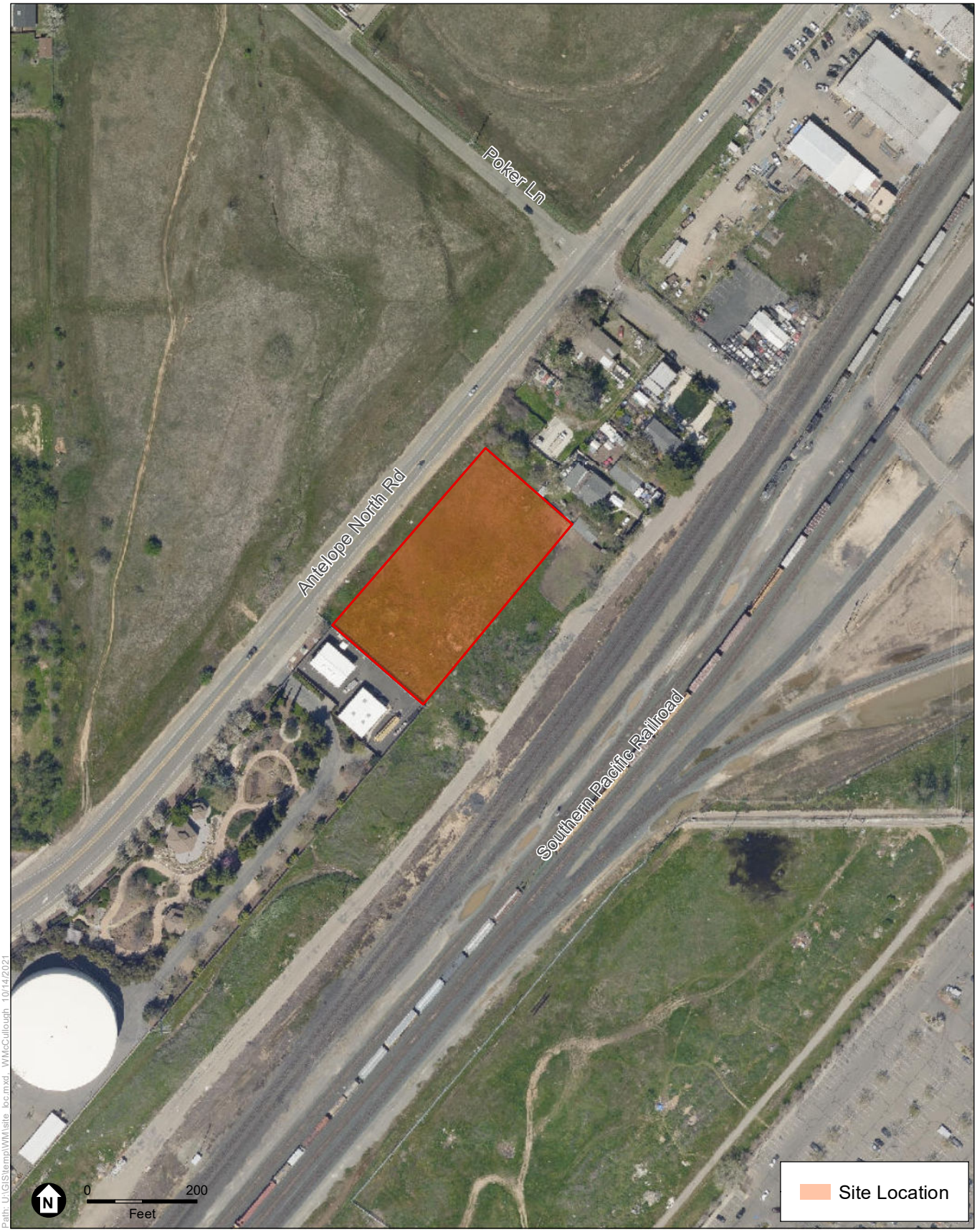
Figure 1-1
Regional Location



Wells 81A, B, C
NorthAntelope/Poker Project

Figure 1-2
Proposed Project Site

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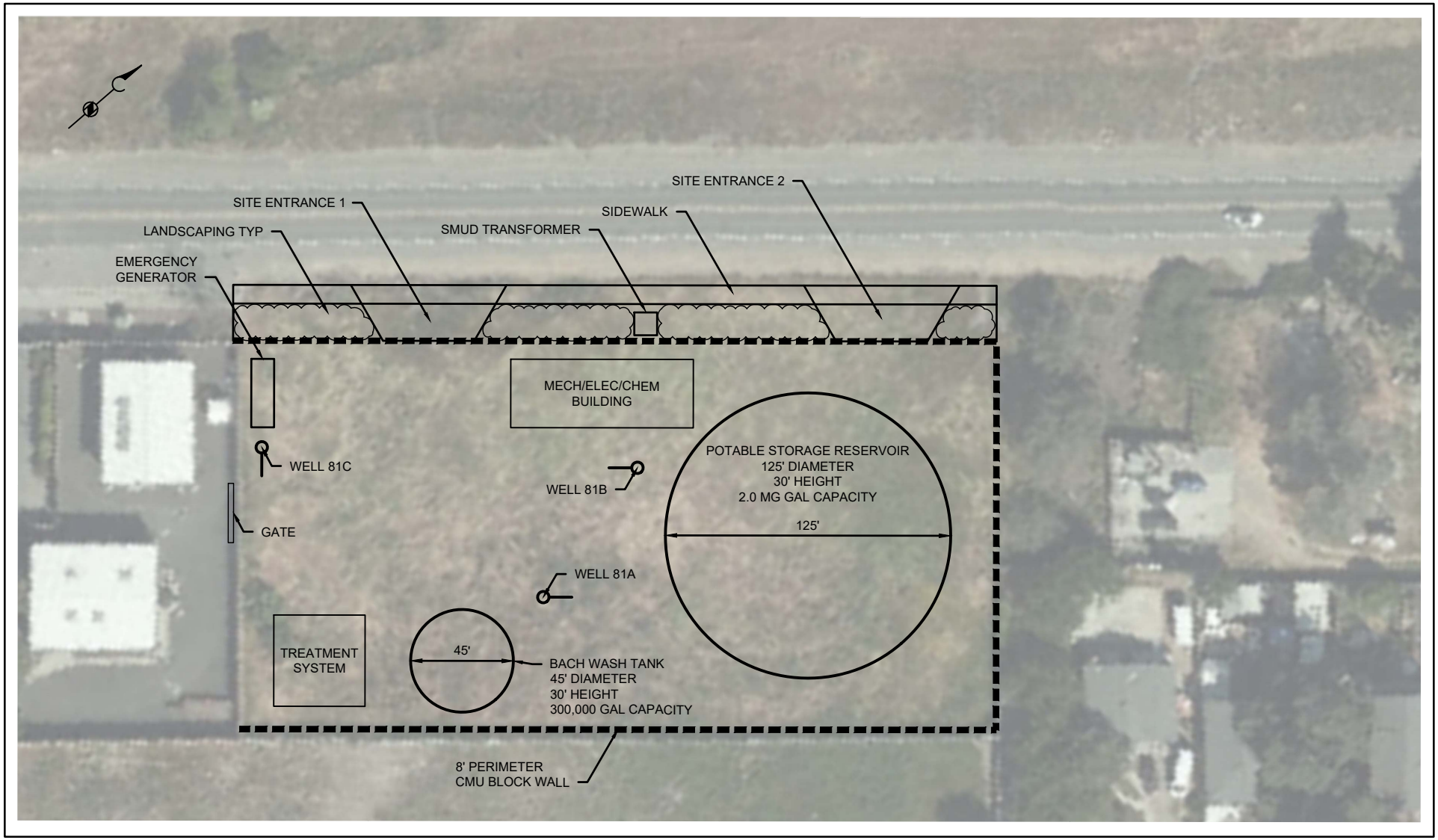

SOURCE: Brown and Caldwell

Wells 81A, B, C
b North Antelope/Poker Project

Figure 1-3
Site Layout

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1.6.1 Construction Equipment and Schedule

The replacement wells and the above ground facilities of the Proposed Project would be constructed using traditional methods. The following equipment would be used during the construction of the Proposed Project:

- Reverse rotary drill rig
- Well drilling support trucks
- Forklifts
- Backhoes
- Cranes
- Skid steers
- Excavators
- Concrete trucks
- Concrete pumps
- Pick-up trucks
- Loaders

The three wells would be drilled in sequence, and the well drilling process would last between 2 and 4 months. The duration of construction for the above ground facilities would last between 12 and 18 months. The Proposed Project is anticipated to occur in the following phases and durations, but actual construction sequencing and duration could vary:

- Clearing and grubbing of the Proposed Project site would take approximately 1 week.
- Construction of the three wells would take place over a period of 2 to 4 months. Each well would require approximately 20 days to complete with up to 14 days of continuous (24 hours per day) drilling operations sometime during the 2- to 4-month period. Intermittent 24-hour drilling operations would be necessary to prevent caving of the borehole and possible loss of the well before completion. The wells would be drilled sequentially.
- After drilling of the wells, construction of above ground facilities would take place over a 12- to 18-month timeframe.
- Construction demobilization would occur over a 2-week period after competition of construction.

1.7 Project Operations and Maintenance

The replacement wells for the Proposed Project would be operated based on system pressure; as pressure falls below a predetermined pressure, wells would start to meet system water demands. Water produced by the wells would pass through the manganese treatment system, if required, and disinfected prior to pumping the water into the distribution system.

Maintenance for the Proposed Project would require deliveries of sodium hypochlorite (NaOCl) used for the treatment system and disinfection process. Additional facility operation would include monitoring well performance (i.e., electrical usage, water level, and pumping rates).

Operation and maintenance associated with the manganese treatment system would include periodic water quality testing and filter media replacement. Filter media would need to be replaced approximately every 10 years, depending on the type of media, the concentration of manganese in the groundwater, and the amount of water produced at the Proposed Project site.

1.8 Resources Not Considered in Detail

Agriculture and Forestry Resources – The Proposed Project site is adjacent to a small developed residential area and within a light industrial area and does not contain lands currently used for agricultural, forest lands, or any land currently under a Williamson Act contract. As such, development of the Proposed Project would not convert farmland to non-agricultural uses, nor would it convert forest land to non-forest uses. The Proposed Project would have **no impact** on agricultural or forestry resources.

Land Use and Planning – The Proposed Project would not include any components that would physically divide an established community. Additionally, the Proposed Project would not require a change in general plan designation or zoning. The Proposed Project would have **no impact** related to land use and planning.

Mineral Resources – The Mineral Land Classification Map of PCC-Grade Aggregate Resources in Sacramento County indicates that the Proposed Project site is located within a Mineral Resource Zone (MRZ)-1, an area where the available information suggests that no significant mineral resource deposits are present (Dupras 1999). A review of the United States Geological Survey (USGS) Mineral Resources Data System (MRDS), the California Geological Energy Management Division (CalGEM)[1] Well Finder online mapping application, and the Sacramento County General Plan indicates that there are no mineral resources in the vicinity of Proposed Project site (Sacramento County 2017; USGS 2021; CalGEM 2021).

According to the review of available data from the USGS, California Geological Survey (CGS), CalGEM, and Sacramento County, there are no significant mineral resources at the Proposed Project site, nor would the Proposed Project result in the loss of availability of any mineral resource in the area. Additionally, Proposed Project activities would not result in the loss of availability of any known mineral resources or locally important mineral resources. Therefore, there would be **no impact** on mineral resources.

Recreation – Almond Grove Park is located approximately 600 feet southwest of the Proposed Project site and is the nearest public park in the vicinity of the Proposed Project. However, the construction of Proposed Project would not facilitate increase in the usage of Almond Grove Park or any other nearby public park, to the degree that it would lead to physical deterioration of the park. Additionally, the Proposed Project does not include the construction or expansion of any recreational facilities. The Proposed Project would have **no impact** on recreation or recreational facilities.

1.9 Measures Included to Minimize Impacts

The Proposed Project site is in an improved area with existing facilities. The Proposed Project facility improvements are designed to be consistent with the surrounding character and properties.

[1] Formerly, the California Division of Oil, Gas, and Geothermal Resources (DOGGR).

The SSWD proposes to implement certain design features as part of the Proposed Project to avoid or reduce impacts associated with the Proposed Project. These design features (measures) are considered part of the Proposed Project for the purposes of this CEQA analysis. These measures are also described in the context of the relevant environmental resource area analyses presented in Chapter 2, *Environmental Checklist*. These measures are summarized below:

Aesthetics – To minimize the potential of contributing to light pollution, the exterior lighting at the Proposed Project site will be designed to point toward the ground and to minimize the leakage of light off-site.

The buildings, storage reservoir, and above ground facilities will be coated to match adjacent facilities. The Proposed Project site is anticipated to be surrounded by an 8-foot-tall CMU block wall, limiting the view onto the site from all four sides of the property.

Hydrology and Water Quality – To minimize the introduction of sediment to the stormwater system during construction, SSWD will implement standard erosion management measures, including the following Sacramento County's stormwater best management practices (BMPs):

- The use of straw wattles and/or silt fences on-site to prevent the flow of sediment off the site.
- The use of sediment traps or gravel bags at drainage inlets to prevent any sediment from entering the stormwater system.

Geology and Soils – Temporary erosion control measures and BMPs will be implemented during and after construction. Because construction of the Proposed Project would involve the disturbance of a surface area greater than 1 acre, the project Contractor (representing SSWD) will be required to obtain coverage through the State Construction General Permit, under the National Pollutant Discharge Elimination System (NPDES) program. To enroll under this permit, the project Contractor will prepare a Storm Water Pollution Prevention Plan (SWPPP), which will be based on the final engineering design and include pertinent components of the Proposed Project.

The SWPPP will be prepared by a qualified engineer or erosion control specialist, and implemented during construction. The SWPPP will be designed to reduce potential impacts related to erosion and surface water quality during construction activities and throughout the life of the Proposed Project. It will include Proposed Project information, monitoring and reporting procedures, and BMPs. The BMPs will include overall site management or good housekeeping measures, stormwater runoff quality control measures, concrete waste management, watering for dust control, and installation and maintenance of erosion control devises such as perimeter silt fences, as needed. Specific BMPs include:

- Measures to prevent sediment from entering aquatic habitat near work areas, including the use of silt fencing and/or sterile hay bales.
- Measures to prevent the cleaning of equipment in drainages or other wetlands.
- Measures addressing temporary sediment disposal.

- Measures to ensure that equipment storage, fueling (if needed), and staging areas are located on upland areas to minimize the risks of direct drainage into sensitive habitats. These staging/equipment maintenance areas will be pre-designated and managed to prevent runoff from entering sensitive habitat.
- Measures to prevent releases of cement or other toxic substances into surface waters.
- Reporting of Project-related spills of hazardous materials to appropriate regulatory entities, including but not limited to Sacramento County, the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), and the Regional Water Quality Control Board (RWQCB). Hazardous materials spills will be cleaned up immediately, and contaminated soils will be excavated and transported to approved disposal areas.

Implementation of the SWPPP will comply with state and federal water quality regulations.

Noise – The Proposed Project will be constructed per Section 6.68 of the Sacramento County Code for noise control (Sacramento County Code 2015). Consistent with the Sacramento County Code, above ground facilities will not be constructed "…*between the hours of 8 p.m. and 6 a.m. on weekdays and Friday commencing at 8 p.m. through and including 7 a.m. on Saturday; Saturdays commencing at 8 p.m. through and including 7 a.m. on the next following Sunday; and on each Sunday after the hour of 8 p.m*."

The Sacramento County Code for noise control also includes exemptions (Section 6.68.090(e)) for when the *"…nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after eight p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner."*

As stated above, intermittent 24-hour drilling operations for well construction would be necessary to prevent caving of the borehole and possible loss of the well before completion. Therefore, each well could require 14 days (operating 24 hours per day) to construct over a 2- to 4-month well construction period. Within the 2- to 4-month period of well construction, there could be 6 weeks of 24-hour per day drilling. Because of the proximity of the Proposed Project site to several residential properties, SSWD will implement the following measures to reduce noise effects:

- During the well drilling and construction portion of the Proposed Project, equipment will be required to be rated for residential use. Nighttime activities will be limited to only time-sensitive and critical tasks that require 24-hour per day operations. Sound curtains will be installed prior to drilling to reduce noise impacts.

Transportation – The project Contractor will prepare a Traffic Control Plan as required by Sacramento County for the ongoing operation of vehicles along Antelope North Road during the period of construction of the Proposed Project. This plan is anticipated to address the following:

- Avoid blocking traffic on Antelope North Road and at its intersection with Poker Lane.
- Allow for continuous pedestrian traffic along Antelope North Road.

1.10 Responsible Agencies, Permits, and Approvals

Table 1-1 summarizes the anticipated permits and/or approvals that may be required before construction of the Proposed Project.

TABLE 1-1
REGULATORY REQUIREMENTS, PERMITS, AND AUTHORIZATIONS FOR PROPOSED PROJECT FACILITIES

Jurisdiction	Agency	Type of Approval
Federal Agencies	N/A	N/A
State/Regional Agencies	Central Valley Regional Water Quality Control Board	NPDES Waste Discharge Requirements Limited Threat Discharges to Surface Waters (R5-2016-0076-01)
	State Water Resources Control Board	NPDES General Permit for Construction Stormwater General Permit (2010-0014-DWQ)
	State of California, Division of Drinking Water	Domestic Water Supply Permit Amendment
	Sacramento Metropolitan Air Quality Management District	Authority to Construct and/or Permit to Operate for natural gas generator
Local Agencies	County of Sacramento	Well installation permit and encroachment permit

NOTES:
N/A = not applicable.
NPDES = National Pollutant Discharge Elimination System.

SOURCE: Data compiled by Environmental Science Associates in 2021.

1.11 References

California Geological Energy Management Division (CalGEM). 2021. Well Finder. Accessed on October 8, 2021. https://www.conservation.ca.gov/calgem/Pages/WellFinder.aspx.

Dupras, Don L. (Dupras), 1999. Mineral Land Classification Map of PCC-Grade Aggregate Resources in Sacramento County. Open-File Report 99-09, Plate 3. California Geological Survey. Map. Scale 1:90,000.

Sacramento County. 2015. Sacramento County Code for Noise Control, Section 6.68.

Sacramento County. 2017. County of Sacramento General Plan, Conservation Element. Amended September 26, 2017. Office of Planning and Environmental Review.

United States Geological Survey (USGS). 2021. Mineral Resources Data System online application. Webpage. Accessed on October 4, 2021. Available at: http://mrdata.usgs.gov/mrds/map-graded.html.

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CHAPTER 2
Environmental Checklist

2.1 Aesthetics

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
I.	**AESTHETICS —** Except as provided in Public Resources Code Section 21099, would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

Discussion

a) ***Less-than-Significant Impact***. The Proposed Project is not in an area with special scenic values. The building constructed to house the treatment and mechanical equipment associated with the wells would be located behind an 8-foot CMU wall and would be designed to be visually consistent with the buildings located on-site or adjacent to the Proposed Project site. The impacts on scenic vistas would be **less than significant**.

b) ***Less-than-Significant Impact***. There are no scenic resources (e.g., rock outcrops or historic buildings) at or near the Proposed Project site, and no tree removal is planned as part of the Proposed Project. The impacts to scenic resources would be **less than significant**.

c) ***Less-than-Significant Impact***. The Proposed Project is within an urbanized area and is zoned as AR-2 (Agricultural-Residential-2 Acres), with industrial to the southwest, residential homes to the northeast, open space to the north, and railroad tracks to the southeast of the Proposed Project site. The Proposed Project would not be in conflict with applicable zoning, and the impacts would be **less than significant**.

d) ***Less-than-Significant Impact***. As described in Section 1.6, *Measures Included to Minimize Impacts*, the Proposed Project would be designed to minimize the potential for light pollution by positioning the exterior lighting toward the ground. The impact would be **less than significant**.

2.2 Air Quality

Issues (and Supporting Information Sources):		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III.	**AIR QUALITY —** Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Discussion

a, b) ***Less-than-Significant Impact with Mitigation Incorporated***. The Proposed Project is located with Sacramento County and is under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). SMAQMD has permitting authority which is exercised through its Rules and Regulations. SMAQMD has issued guidance for the preparation of air quality analyses for CEQA documents (SMAQMD 2017).

Construction of the Proposed Project would be short term and temporary, and the increase in criteria pollutant emissions from off- and on-road equipment exhaust would not conflict with the applicable air quality plans. Because construction emissions are not expected to exceed the SMAQMD thresholds for nitrogen oxides (NO_X), this construction impact would be **less than significant**.

Operation of the Proposed Project would result in an increase in criteria pollutant emissions, generated by employee trips during inspection activities. However, the increase in employee trips would not be substantial. In addition, the operation of the Proposed Project would be electrically powered; therefore, no stationary-source emissions would occur at the Proposed Project site. There would be a generator on-site, but this would be for emergency purposes only.

Thus, operation and maintenance of the Proposed Project would not conflict with or obstruct implementation of SMAQMD standards. This operational impact would be **less than significant**

Construction activities are short term and typically result in combustion exhaust emissions (e.g., vehicle and equipment tailpipe emissions), including ozone precursors (reactive organic gases [ROG] and NOx), and PM from combustion and in the form of

dust (fugitive dust). Emissions of ozone precursors and particulate matter (PM) are primarily a result of the combustion of fuel from on-road vehicles and off-road equipment.

Pollutant emissions associated with construction of the Proposed Project would be generated from the following general construction activities: (1) ground disturbance from grading, excavation, drilling, construction of facilities, etc.; (2) vehicle trips from workers traveling to and from the construction areas; (3) trips associated with delivery of construction supplies to, and hauling debris from, the construction areas; and (4) fuel combustion by on-site construction equipment. These construction activities would temporarily generate air pollutant emissions, including dust and fumes. The amount of emissions that would be generated on a daily basis would vary, depending on the intensity and types of construction activities that would occur simultaneously. Overall, construction activities associated with the Proposed Project components would occur over a period of approximately 12 to 18 months; however, work within this timeframe would not be continuous for the entire 12 to 18 months, as described above. The annual construction emissions of carbon monoxide (CO), NOx, ROG, sulfur oxide (SOx), particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) would not exceed the SMAQMD significance thresholds for construction.

However, fugitive dust control measures are included in **Mitigation Measure AQ-1** and would reduce fugitive dust emissions from construction activities, which would be implemented as part of the Proposed Project. Therefore, with implementation of **Mitigation Measure AQ-1,** this impact would be **less than significant**.

> **Mitigation Measure AQ-1:** SSWD and/or its Contractor shall implement the following fugitive dust control standards for construction emissions (required by SMAQMD Rule 403 and enforced by SMAQMD staff):
>
> - Water exposed surfaces two times daily. Exposed surfaces include, but are not limited to, soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
> - Cover or maintain at least 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that travel along freeways or major roadways should be covered.
> - Use wet power vacuum street sweepers to remove visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
> - Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
> - All roadways, driveways, sidewalks, and parking lots to be paved should be completed as soon as practical. In addition, building pads should be laid as soon as practical after grading unless seeding or soil binders are used.

c) ***Less-than Significant-Impact with Mitigation Incorporated***. Construction of the Proposed Project would result in the short-term generation of diesel particulate matter (DPM) emissions from the use of off-road diesel equipment and from construction

material deliveries and debris removal using on-road heavy-duty trucks. DPM is a complex mixture of chemicals and particulate matter that has been identified by the State of California as a toxic air contaminant (TAC) with potential cancer and chronic non-cancer effects. The dose to which receptors are exposed is the primary factor affecting health risk from TACs. Dose is a function of the concentration of a substance in the environment and the duration of exposure to the substance. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments (HRAs), which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period when assessing TACs (such as DPM) that have only cancer or chronic non-cancer health effects (OEHHA 2015).

A residence is located approximately 100 feet to the northwest of the Proposed Project site. The increase in lifetime cancer risk and chronic non-cancer hazard index from exposure to DPM emissions generated by construction activities associated with the Proposed Project from this nearest off-site sensitive receptor are not anticipated to exceed the SMAQMD significance thresholds for construction.

However, exhaust control measures are included in **Mitigation Measure AQ-2** and would reduce exhaust emissions from construction activities, which would be implemented as part of the Proposed Project. Therefore, with implementation of **Mitigation Measure AQ-2**, this impact would be **less than significant**.

> **Mitigation Measure AQ-2:** SSWD and/or its Contractor shall implement the following exhaust control standards for construction emissions (required by SMAQMD Rule 403 and enforced by SMAQMD staff):
>
> - Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.
> - Provide current certificate(s) of compliance for the California Air Resources Board (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, Sections 2449 and 2449.1].

Normal operation of the Proposed Project would consist of periodic facility inspections. However, the employee trips required for periodic facility inspection would not be significantly more than existing employee trips in the area. As a result, the impact related to exposure of sensitive receptors to substantial TAC emissions from the Proposed Project operations would be **less than significant.**

d) ***Less-than Significant-Impact***. The use of on-site diesel-powered equipment can produce odorous exhaust; however, equipment use at the Proposed Project site would be temporary, and potential odors would not affect a substantial number of people in the vicinity, given the industrial nature of the Proposed Project site. Therefore, construction of the Proposed Project would not create objectionable odors that would affect a substantial number of people, and odor impacts would be **less than significant**.

As a general matter, the types of land use development that pose potential odor problems include wastewater treatment plants, refineries, landfills, composting facilities, and transfer stations. Because the Proposed Project would consist of three wells and associated treatment and pumping facilities and no uses known to pose potential odor problems would occupy the site, operation of the Proposed Project would not create objectionable odors that would affect a substantial number of people. This impact would be **less than significant**.

References

Office of Environmental Health Hazard Assessment (OEHHA), 2015. Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments. Air, Community, and Environmental Research Branch Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. February 2015.

Sacramento Metropolitan Air Quality Management District (SMAQMD). 2017. Air Quality Pollutants and Standards.

2.3 Biological Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
IV. BIOLOGICAL RESOURCES — Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Environmental Setting

Data Sources/Methodology

The primary sources of data referenced for this section include the following:

- USFWS List of Federal Endangered and Threatened Species that May Occur in the Project Site (USFWS 2021a) (see **Appendix A**).
- USFWS Critical Habitat for Threatened and Endangered Species (online mapping program) (USFWS 2021b).
- California Natural Diversity Database (CNDDB) Rarefind 5 computer program (v5.2.14) (CDFW 2021a) (see **Appendix A**).
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (v8-03 0.39) (CNPS 2021) (see **Appendix A**).

Following a review of the reports above, Environmental Science Associates (ESA) conducted a general biological survey of the Proposed Project site on October 8, 2021. The purpose of the survey was to document biological resources present within the Proposed Project site. The survey

was conducted on foot and existing habitat types, plants, and wildlife species within and adjacent to the Proposed Project site were recorded. The biological survey focused on identifying and delineating suitable habitat for special-status plant and wildlife species. General habitat conditions were noted and incidental species observations were recorded. The survey included a floristic survey of all vascular plants observed.

Existing Site Conditions and Setting

The Proposed Project site is surrounded by a paved road to the northwest; fences and development to the northeast and southwest; and a fence, disturbed grassland, paved road, and railroad tracks to the southeast. The Proposed Project site occurs on Section 21 of Township 10 North, Range 6 East of the Citrus Heights, California USGS 7.5-minute series quadrangle. The approximate centroid of the Proposed Project site is 38º 42′ 28.94″ North, 121º 19′ 53.56″ West. Topography is relatively flat, with elevations ranging from approximately 155 to 160 feet.

Vegetation/Habitat Types

Vegetation communities are assemblages of plant species that occur together in the same area and are defined by species composition and relative abundance. The Proposed Project site consists of an upland vegetation community of nonnative annual grassland. The nonnative grassland had been mowed prior to the October 8, 2021 biological survey. A spoils pile and disturbed areas devoid of vegetation occur along the northwestern portion of the grassland. California ground squirrel (*Otospermophilis beecheyi*) and their burrows occur throughout the nonnative annual grassland. Dominant vegetation within the nonnative annual grassland includes rattail foxtail barley (*Hordeum murinum*), soft chess (*Bromus hordeaceus*), and oat (*Avena* sp.).

Sensitive Natural Communities including Waters of the U.S. and Waters of the State

Sensitive natural communities include habitats and natural communities that are regulated by federal and state resource agencies or natural communities ranked S1, S2, or S3 by the California Department of Fish and Wildlife (CDFW 2021b). No sensitive habitats occur within the Proposed Project site.

Wildlife Movement Corridors

Wildlife movement corridors are considered an important ecological resource by various agencies (CDFW and USFWS) and under CEQA. Movement corridors provide favorable locations for wildlife to travel between different habitat areas such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They also function as dispersal corridors, allowing animals to move between various locations within their range. Topography and other natural factors, in combination with urbanization, can fragment or separate large open-space areas. Areas of human disturbance or urban development can fragment wildlife habitats and impede wildlife movement between areas of suitable habitat. This fragmentation creates isolated "islands" of vegetation that may not provide sufficient area to accommodate sustainable populations, and can adversely affect genetic and species diversity. Movement corridors mitigate the effects of this fragmentation by allowing animals to move between remaining habitats, which

in turn allows depleted populations to be replenished and promotes genetic exchange between separate populations.

The Proposed Project site does not provide a wildlife corridor, as it is surrounded by paved roads, railroad, and fencing.

Special-Status Species

Special-status species are regulated under the federal and California Endangered Species Acts or other regulations, or are species that are considered sufficiently rare by the scientific community to qualify for such listing. These species are classified under the following categories:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (Code of Federal Regulations Title 50, Section 17.12 [50 CFR 17.12] [listed plants] and 50 CFR 17.11 [listed animals] and various notices in the *Federal Register* [proposed species]).
- Species that are candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (*Federal Register* Title 61, Number 40, February 28, 1996).
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (California Code of Regulations Title 14, Section 670.5).
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.).
- Animal species of special concern to CDFW.
- Animals fully protected under the Fish and Game Code (California Fish and Game Code Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).
- Species that meet the definitions of rare and endangered under CEQA. CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists (State CEQA Guidelines, Section 15380).
- Plants considered by CNPS and CDFW to be "rare, threatened or endangered in California" (California Rare Plant Ranks 1A, 1B, and 2 in CNPS 2021).

A list of special-status species that have the potential to occur within the vicinity of the Proposed Project site was compiled based on data contained in the CNDDB (CDFW 2021a), CNPS (2021), and USFWS (2021a) lists. **Table 1** in **Appendix A** provides a list of special-status species, their general habitat requirements, and an assessment of their potential to occur at the Proposed Project site. In addition, the analysis below includes consideration of nesting birds regulated by the federal Migratory Bird Treaty Act (MBTA) or California Fish and Game Code.

The "Potential to Occur" categories are defined as follows:

- **None**: The Proposed Project site does not support suitable habitat for a particular species, and/or the Proposed Project site is outside of the species' known range. In addition, specific

to plants, plants were not observed during a survey conducted within the evident and identifiable period for that species.

- **Low**: The Proposed Project site provides only limited and low-quality habitat for a particular species. In addition, the known range for a particular species may be outside of the immediate Proposed Project site.
- **Medium**: The Proposed Project site provides suitable habitat for a particular species.
- **High**: The Proposed Project site provides ideal habitat conditions for a particular species and/or known populations occur within or in the vicinity of the Proposed Project site.
- **Present:** The species was observed during the biological survey within the Proposed Project site. Excluding commonly occurring ground-nesting birds, there is no or low potential for regionally occurring special-status species to occur within the Proposed Project site. The analysis below includes consideration of nesting migratory birds and other birds of prey, which were categorized as having medium potential to occur within or in the vicinity of the Proposed Project site.

Critical Habitat

Critical habitat is defined in Section 3(5)A of the federal Endangered Species Act as the specific portions of the geographic area occupied by the species in which physical or biological features essential to the conservation of the species are found and that may require special management considerations or protection. Specific areas outside of the geographic area occupied by the species may also be included in critical habitat designations upon a determination that such areas are essential for the conservation of the species. The Proposed Project site does not occur within designated critical habitat for any federally listed species (USFWS 2021b).

Discussion

a) ***Less-than-Significant with Mitigation Incorporated.*** Special-status species and their habitats that may be affected either directly or indirectly through implementation of the Proposed Project are nesting birds regulated by the MBTA.

Special-Status Birds and Nesting Birds Regulated by the MBTA and Fish and Game Code. Under the MBTA, most bird species and their nests and eggs are protected from injury or death. California Fish and Game Code Sections 3503, 3503.5, and 3800 prohibit the possession, incidental take, or needless destruction of birds, their nests, and eggs.

The nonnative annual grassland within the Proposed Project site provides suitable nesting habitat for ground-nesting birds. While no trees are located on the Proposed Project site, trees in the Proposed Project vicinity also provide nesting habitat. Direct impacts on nesting birds or their habitat could occur during initial Proposed Project activities such as clearing and grubbing or grading. Nesting birds could be adversely affected if active nesting is either removed or exposed to a substantial increase in noise or human presence during Proposed Project activities. The impact would be less than significant if construction activities were to occur during the nonbreeding season (September 1 through January 31). However, construction activities conducted during the breeding season (February 1 through August 31) could impact nesting birds, resulting in a potentially

significant impact. Implementing **Mitigation Measure BIO-1** would reduce the impact to a **less-than-significant** level.

> **Mitigation Measure BIO-1: Implement Measures to Protect Special-Status Birds and Nesting Birds Regulated by the MBTA and California Fish and Game Code.** For construction activities during the nesting season (February 1 to August 31), a preconstruction survey shall be conducted for active nests within 500 feet of the Proposed Project site for all regulated bird species. The survey shall be conducted with binoculars from publicly accessible areas outside of the Proposed Project site. The survey shall be conducted by a qualified biologist no more than 7 days before the start of construction.
>
> If the preconstruction survey shows that there is no evidence of active nests, a letter report shall be submitted to the Proposed Project proponent for their records within 14 days of the survey and no additional measures are required. If construction does not begin within 7 days of the preconstruction survey, or if construction halts for more than 7 days, an additional preconstruction survey is required.

If active nests are found during the survey, the biologist shall establish a no work buffer zone. Generally accepted buffers include a 250-foot buffer around raptor nests and a 100-foot buffer around migratory bird and passerine nests. The Proposed Project proponent shall either wait until the nests are not active to start construction or shall prepare a plan for avoiding impacts. The plan shall identify measures to avoid disturbance of the active nests. Depending on the conditions specific to each nest, and the relative location and rate of construction activities, it may be feasible for construction to occur as planned, as determined by a qualified biologist. Appropriate measures may include restricting construction activities or having a qualified biologist with stop-work authority monitor the nest for evidence that the behavior of the parents has changed during construction.

b) ***No Impact***. The Proposed Project site does not contain any riparian habitat or other sensitive natural community. Therefore, the Proposed Project would have **no impact** on natural communities.

c) ***No Impact***. The Proposed Project site does not contain wetlands that could be regulated by the federal Clean Water Act and the state Porter-Cologne Water Quality Control Act. Therefore, the proposed Project would have **no impact** on aquatic features.

d) ***No Impact***. The Proposed Project would not interfere with the movement of wildlife or fish. **No impact** would occur.

e) ***No Impact***. The Proposed Project site does not contain any trees. The Proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Therefore, **no impact** would occur.

f) ***No Impact***. No adopted habitat conservation plans, natural community conservation plans, or other local conservation plans cover the Proposed Project site. **No impact** would occur.

References

California Department of Fish and Wildlife (CDFW). 2021a. California Natural Diversity Database (CNDDB) Rarefind 5 computer program (v5.2.14). Biogeographic Data Branch, Sacramento, CA.

———. 2021b. California Natural Community List. Vegetation Classification and Mapping Program. Sacramento, CA. Available: https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List.

California Native Plant Society (CNPS). 2021. Inventory of Rare and Endangered Plants (online edition, v8.03 0.39). Citrus Heights USGS Topographic Quadrangle and 8 Surrounding Quadrangles (Pleasant Grove, Roseville, Rocklin, Rio Linda, Folsom, Sacramento East, Carmichael, and Buffalo Creek). Sacramento, CA.

Migratory Bird Treaty Act. 1918. (16 U.S.C. 703-712; Ch. 128; July 3, 1918; 40 Stat. 755) as amended by: Chapter 634; June 20, 1936; 49 Stat. 1556; P.L. 86-732; September 8, 1960; 74 Stat. 866; P.L. 90-578; October 17, 1968; 82 Stat. 1118; P.L. 91-135; December 5, 1969; 83 Stat. 282; P.L. 93-300; June 1, 1974; 88 Stat. 190; P.L. 95-616; November 8, 1978; 92 Stat. 3111; P.L. 99-645; November 10, 1986; 100 Stat. 3590 and P.L. 105-312; October 30, 1998; 112 Stat. 2956.

U.S. Fish and Wildlife Service (USFWS). 2021a. List of Federal Endangered and Threatened Species that May Occur in the Project Site. Sacramento Fish and Wildlife Office, Endangered Species Division. Available: https://ecos.fws.gov/ipac/user/login. Accessed on March 22, 2021.

———. 2021b. Critical Habitat for Threatened and Endangered Species. Critical Habitat Portal Online Mapper. Available: http://ecos.fws.gov/crithab/.

2.4 Cultural Resources

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES — Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Environmental Setting

This section examines the potential impacts of the Proposed Project on cultural resources. Tribal cultural resources (TCRs) are described separately later in this chapter of the IS/MND (see Section 2.14). For purposes of this analysis, the term *cultural resource* is defined as follows:

> *Pre-contact and historic-era sites, structures, districts, and landscapes, or other evidence associated with human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious, or other reason. These resources include the following types of CEQA-defined resources: historical resources, archaeological resources, and human remains.*

The term *pre-contact* is used as a chronological adjective to refer to the period prior to Euroamerican arrival in the Proposed Project area.

This section relies on the information and findings presented in the Proposed Project's confidential cultural resources technical report: *Wells 81A, B, C North Antelope/Poker Project, Antelope, Sacramento County: Cultural Resources Inventory Report* (Hoffman 2021). The Cultural Resources Inventory Report included an overview of the environmental, ethnographic, and historic background of the Proposed Project area, with an emphasis on aspects related to human occupation. Please contact SSWD to inquire about reviewing this report.

CEQA Area of Potential Effects

For purposes of this analysis, the CEQA Area of Potential Effects (C-APE) is defined as both the horizontal and vertical maximum extents of potential direct impacts of the Proposed Project on cultural resources. This area encompasses the footprint of Proposed Project actions, including staging and access areas. The C-APE comprises approximately 1.5 acres and extends vertically to the maximum depth of the Proposed Project's ground-disturbing activities, varying according to specific location; this vertical extent is estimated to be 3 feet for all Proposed Project components, except for clearing and grubbing, estimated to extend to 1 foot deep, and the wells themselves, estimated to extend to up to 600 feet below surface. (Note: Imperial units are used except when original field measurements were taken in metric or when item(s) to which measurement applies is customarily measured using metric.) Because of the nature of the Proposed Project and its

minimal potential for indirect impacts, a single C-APE has been defined to account for impacts on archaeological and architectural resources. The same C-APE applies to human remains.

Records Search

In 2021, ESA conducted a records search of the California Historical Resources Information System (CHRIS), at the North Central Information System (NCIC) at Sacramento State University, that included the C-APE with a 0.25-mile buffer. The NCIC maintains the CHRIS records relevant to the C-APE and vicinity.

The NCIC has record of one previously recorded cultural resource mapped within the 0.25-mile search area, although this resource (P-34-000505) is not mapped within the C-APE. The previously recorded resource in the search area, P-34-000505, is the historic-era Southern Pacific Railroad, which runs north-northeast/south-southwest outside to the east of the C-APE. The NCIC has records of 11 previous cultural resources studies that have been conducted in or within 0.25 mile of the C-APE; only two of these have covered a portion of the C-APE.

Ethnographic Literature Research

With respect to the C-APE, a review of ethnographic literature for the current investigation revealed that the closest documented Native American village near the C-APE was the Nisenan village *Pitsokut*, which was near the modern-day city of Roseville, approximately 3 miles northeast of the C-APE (Kroeber 1925 [1976]).

Native American Correspondence

ESA contacted the California Native American Heritage Commission (NAHC) on September 20, 2021 in request of a search of the NAHC's Sacred Lands File (SLF) and a list of Native American representatives who may have interest in the Proposed Project. To date, there has been no response received by the NAHC.

In support of required Native American consultation for the Proposed Project pursuant to California Public Resources Code (PRC) § 21080.3, SSWD sent letters on October 5, 2021, via certified mail, to the following Native American representatives: Raymond Hitchcock, Chairperson, Wilton Rancheria Chairperson; and Gene Whitehouse, Chairperson, United Auburn Indian Community (UAIC) of the Auburn Rancheria. These letters provided information on the Proposed Project and requested that the recipients notify SSWD if they would like to consult pursuant to PRC § 21080.3. To date, SSWD received a response from UAIC stating they decline to consult on the Proposed Project.

Archaeological Site Sensitivity

Quaternary sand, silt, and gravels associated with the Turlock Lake Formation underlie the entire C-APE (California Division of Mines and Geology 1981), and native soils in the C-APE consist of Fiddyment series fine sandy loams (USDA 2021). Based on the Older Pleistocene age (1.9 million to 22,000 years before present) (Meyer and Rosenthal 2008) of the soil unit mapped in the C-APE, and that the C-APE is not in close proximity to a perennial freshwater body, the C-APE's potential for the presence of buried Native American archaeological deposits is very

low (Meyer and Rosenthal 2007:15; 2008:160–161). The potential California Register-eligibility of any Native American archaeological resources in the C-APE, if present, is hard to gauge since such deposits may be intact or disturbed from historic-era and modern activities, and such disturbance may have affected the integrity of such deposits. Regardless, the potential California Register-eligibility of any intact (i.e., those retaining integrity) Native American archaeological resources in the C-APE is moderate, since such resources have the potential to meet any California Register criteria. Based on the above analysis, the C-APE has a low sensitivity for both surficial and buried Native American archaeological resources (low potential presence with moderate potential significance).

No signs of historic-era development activities and associated use that may have resulted in the creation of surficial and buried historic-era archaeological deposits in the C-APE were seen in a review of historic photographs or maps, or during the field survey. Therefore, the potential presence for both surficial and buried historic-era archaeological deposits in the C-APE is low. Background research of historic topographic maps and photographs did not indicate any clear avenues for significance for the California Register for any buried historic-era archaeological deposits in the C-APE. Also, based on known historic-era archaeological resources previously recorded in similar settings in the Proposed Project vicinity, the potential significance of any intact historic-era archaeological resources in the C-APE is low. Therefore, the C-APE has a low sensitivity for historic-era archaeological resources, both buried and surficial (low potential presence with low potential significance).

Field Survey

On September 28, 2021, ESA Archaeologist Robin Hoffman conducted a pedestrian surface survey of the entire C-APE. Intensive pedestrian methods were used during the survey, consisting of walking the ground surface in parallel transects no greater than 10 meters apart and inspecting the ground surface for evidence of cultural material (archaeological or architectural). During the survey, ground visibility ranged from 0 to 75 percent, averaging approximately 10 percent, as dense cut dry grass was present throughout the C-APE. Soil throughout the C-APE, where visible, was dry light brown fine sandy loam. Several small, short, soil piles were present throughout the C-APE and may evidence either stockpiling or some small-scale previous ground disturbance in the C-APE. Sparse modern refuse was also present throughout the C-APE. The entire C-APE was covered by the survey. During the field survey, no cultural resources or indicators thereof were identified in the C-APE.

Summary of Resources Identified

Through background research, Native American correspondence, and a field survey conducted for the Proposed Project, no cultural resources, including any that could qualify as a historical resource or unique archaeological resource, as defined by CEQA, were identified in the C-APE.

Discussion

a) ***No Impact***. No architectural resources were identified in the C-APE through background research and field surveys for the Proposed Project. As such, there are no known historical resources, as defined in CEQA Guidelines Section 15064.5, in the C-APE.

Therefore, the Proposed Project would result in **no impact** on historical resources, and no mitigation is required.

b) ***Less-than-Significant Impact with Mitigation***. No archaeological resources have been identified in the C-APE. Therefore, no known archaeological resources that may qualify as historical resources (as defined in CEQA Guidelines Section 15064.5) or unique archaeological resources (as defined in PRC Section 21083.2[g]) are present in the C-APE. Additionally, the desktop archaeological sensitivity analysis conducted as part of the cultural resources study concluded that the C-APE has low sensitivity for both pre-contact and historic-era archaeological resources. As a result, there is no substantial evidence of the presence in the C-APE of any archaeological resources, as defined in CEQA Guidelines Section 15064.5. Therefore, the Proposed Project is not expected to impact any archaeological resource, pursuant to CEQA Guidelines Section 15064.5.

Although there is no substantial evidence that archaeological resources are present in the C-APE, the Proposed Project would involve ground-disturbing activities that may extend into undisturbed soil. Such activities could unearth, expose, or disturb subsurface archaeological resources that have not been identified on the surface. If such resources were found to qualify as archaeological resources, pursuant to CEQA Guidelines Section 15064, impacts of the Proposed Project on archaeological resources would be potentially significant. Such potentially significant impacts would be reduced to less-than-significant by implementing **Mitigation Measure CUL-1**.

> **Mitigation Measure CUL-1: Implement Unanticipated Discovery Protocol for Archaeological Resources, including Potential Tribal Cultural Resources.** If pre-contact or historic-era archaeological resources are encountered by construction personnel during Proposed Project construction, all construction activities within 100 feet shall halt until a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology and with expertise in California archaeology, can assess the significance of the find. Pre-contact archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (midden) containing fire-affected rock, artifacts, or shellfish remains; groundstone artifacts (e.g., mortars, pestles, handstones); and battered stone tools, such as hammer stones and pitted stones. Historic-era materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the qualified archaeologist determines that the resource is or is potentially Native American in origin, culturally affiliated California Native American Tribes shall be contacted to assess the find and determine whether it is potentially a tribal cultural resource.
>
> If SSWD determines, based on recommendations from the qualified archaeologist and culturally affiliated California Native American Tribes, if the resource is Native American, that the resource may qualify as a historical resource or unique archaeological resource (as defined in CEQA Guidelines Section 15064.5), or a tribal cultural resource (as defined in PRC Section 21074), the resource shall be avoided if feasible. Avoidance means that no activities

associated with the Proposed Project that may impact cultural resources or tribal cultural resources shall occur within the boundaries of the resource or any defined buffer zones. SSWD shall determine whether avoidance is feasible considering factors such as the nature of the find, Proposed Project design, costs, and other considerations.

If avoidance is not feasible, SSWD shall consult with its qualified archaeologist, culturally affiliated California Native American Tribes, if the resource is Native American, and other appropriate interested parties to determine treatment measures to minimize or mitigate any potential impacts on the resource pursuant to PRC Section 21083.2 and CEQA Guidelines Section 15126.4.

Any treatment measures implemented shall be documented in a professional-level technical report (e.g., Archaeological Testing Results Report, Archaeological Data Recovery Report, Ethnographic Report), authored by a qualified archaeologist, to be filed with the CHRIS. Proposed Project construction work at the location of the find may commence upon completion of the approved treatment and authorization by SSWD. Work may proceed in other parts of the Proposed Project area while the mitigation is being carried out.

If, during Proposed Project implementation, SSWD determines that portions of the Proposed Project area may be sensitive for archaeological resources or tribal cultural resources, SSWD may authorize construction monitoring of these locations by an archaeologist and Tribal Monitor. Any monitoring by a Tribal Monitor shall be done under agreements between SSWD and culturally affiliated California Native American Tribes.

c) ***Less-than-Significant Impact with Mitigation Incorporated***. No human remains have been identified in the C-APE through archival research, field surveys, or Native American consultation. Also, the land use designations for the C-APE do not include cemetery uses, and no known human remains exist within the C-APE. Therefore, the Proposed Project is not anticipated to disturb any human remains.

However, because the Proposed Project would involve ground-disturbing activities, it is possible that such actions could unearth, expose, or disturb previously unknown human remains. In the event that human remains were discovered during Proposed Project construction activities, impacts on the human remains resulting from the Proposed Project would be significant if those remains were disturbed or damaged. Such potentially significant impacts would be reduced to a less-than-significant level by implementing **Mitigation Measure CUL-2**.

Mitigation Measure CUL-2: Implement Unanticipated-Discovery Protocol for Human Remains. If human remains are uncovered during construction, all work shall immediately halt within 100 feet of the find and the Sacramento County Coroner shall be contacted to evaluate the remains and follow the procedures and protocols set forth in CEQA Guidelines Section 15064.5(e)(1). If the County Coroner determines that the remains are Native American, Sacramento County shall contact the NAHC, in accordance with California Health and Safety Code Section 7050.5(c) and PRC Section 5097.98. As required

by PRC Section 5097.98, SSWD shall ensure that further development activity avoids damage or disturbance in the immediate vicinity of the Native American human remains, according to generally accepted cultural or archaeological standards or practices, until SSWD has conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

References

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2.5 Energy

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VI. ENERGY — Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Discussion

a) ***Less-than-Significant Impact***. Energy use during construction would mainly consist of fuels (diesel and gasoline) consumed by vehicles and equipment required to construct the Proposed Project. Refer to Section 1.2.4, *Construction Equipment and Schedule*, for a list of the anticipated construction equipment; Section 1.2.4 also states that the duration of the Proposed Project (including the well drilling process and construction of the above ground facilities) would be between 12 and 18 months long. The Proposed Project would be constructed using traditional construction methods, construction is not anticipated to be performed in a wasteful or inefficient manner, and it would not result in unnecessary consumption of energy resources. As construction would only last between 12 and 18 months, and would employ efficient and non-wasteful construction methods, the Proposed Project's energy impact would be **less than significant**.

b) ***No Impact***. The Proposed Project would be constructed, operated, and maintained in accordance with the goals and policies included in the Policy Plan and Action Program described in the Energy Element of the Sacramento County General Plan (Sacramento County 2017). Therefore, the Proposed Project would have **no impact** on energy resources.

References

Sacramento County. 2017. Sacramento County General Plan, Energy Element.

2.6 Geology and Soils

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VII. GEOLOGY AND SOILS — Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Discussion

a.i) ***No Impact***. According to the California Geological Survey (CGS) California Earthquake Hazards Zone Application (EQ Zapp), the Proposed Project is not within a mapped Earthquake Fault Zone (EFZ) (CGS 2021). Further, the Proposed Project does not include any construction of any structures that are intended for human occupation. Therefore, the Proposed Project would not directly or indirectly cause loss, injury, or death, and there would be **no impact**.

a.ii) ***Less-than-Significant Impact***. There are no Holocene-active[2] or Pre-Holocene[3] faults in proximity to Proposed Project site (CGS 2010). The nearest faults to the Proposed Project site are the Maidu East fault of the Foothills fault system (approximately 18 miles

[2] Holocene-active faults show evidence of displacement within the Holocene Epoch, or the last 11,700 years are considered active (CGS 2008).

[3] Pre-Holocene faults have not shown evidence of displacement in the last 11,700 years (CGS 2008).

northeast of the Proposed Project site) and the Dunnigan Hills fault (approximately 30 miles west of the Proposed Project site).

Further, all construction associated with the Proposed Project would be subject to the regulations included in the most current version of the California Building Code (CBC), consistent with state law. The CBC requires the preparation of a site-specific geotechnical report by a California-licensed geotechnical engineer. The report will be used to inform the specific design elements of the Proposed Project components, including seismic design elements, to ensure the structures associated with the Proposed Project are suitable to withstand any potential damage due to seismic groundshaking.

Compliance with a site-specific geotechnical report and all applicable design requirements included in the CBC will ensure that impacts related to seismic groundshaking at the Proposed Project site would be **less than significant**.

a.iii) ***Less-than-Significant Impact***. Liquefaction is a phenomenon in which unconsolidated, water-saturated sediments become unstable due to the effects of strong seismic groundshaking. During an earthquake, these sediments can behave like a liquid, potentially causing severe damage to overlying structures. Lateral spreading is a variety of minor landslide that occurs when unconsolidated liquefiable material breaks and spreads due to the effects of gravity, usually down gentle slopes. Liquefaction-induced lateral spreading is defined as the finite, lateral displacement of gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake. The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, and density of the soil. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 50 feet of the ground surface and are saturated (below the groundwater table). Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure.

The Proposed Project site is underlain by the Turlock Lake Formation (Qtl), which is mainly comprised of weathered alluvial deposits of sand with some silt and gravel (Gutierrez 2011). However, according to Department of Water Resources (DWR) groundwater data, the groundwater level near the Proposed Project site has been consistently below 175 feet below ground surface (bgs) between 2012 and 2020 (DWR 2021). Additionally, the Proposed Project site is not in proximity to any Holocene-active faults, and the closest fault is approximately 18 miles to the northeast. Due to underlying geology, low groundwater level, and distance from nearby active faults, the potential for liquefaction due to seismic groundshaking at the Proposed Project site is low. Further, as stated in Impact a.ii, a geotechnical investigation would be required to inform the design of Proposed Project components, which would include specific data regarding the liquefaction potential at the Proposed Project site.

Adherence to the design specifications included in the required site-specific geotechnical report would reduce the potential for impacts related to liquefaction. The impact would be **less than significant**.

a.iv) ***No Impact***. Landslides are one of the various types of downslope movements in which rock, soil, and other debris are displaced due to the effects of gravity. The potential for material to detach and move downslope depends on multiple factors, including the type of material, water content, and steepness of terrain.

Landslides and other slope failures are not anticipated at the Proposed Project site due to the relatively flat topography of the surrounding area. Based on Google Earth imagery, there are no signs of previous landslides within or around the Proposed Project site. Additionally, based on a review of geologic maps of the area, there are no mapped historical landslides in the vicinity of the Proposed Project site (Gutierrez 2011). Nevertheless, slope stability studies will be included in the geotechnical investigation; if the investigation indicates there is a landslide risk, measures will be included in the geotechnical report. The Proposed Project would not include any activity that would directly or indirectly cause potential substantial adverse effects (including loss, injury, or death) as a result of landslides. There would be **no impact**.

b) ***Less-than-Significant Impact***. Project construction would include ground-disturbing activities that could increase the risk of erosion or sediment transport, such as soil excavation, grading, trenching, and soil stockpiling. Because the overall footprint of construction activities would exceed 1 acre, the Proposed Project would be required to comply with the NPDES General Permit for Stormwater Discharge Associated with Construction and Land Disturbance Activities Order 2010-0014-DWQ (Construction General Permit), as discussed in Section 1.6, *Measures Included to Minimize Impacts*.

Compliance with these independently enforceable existing requirements would reduce the Proposed Project's potential impacts associated with soil erosion and loss of topsoil during construction to **less than significant**.

c) ***Less-than-Significant Impact***. As stated above, the risk of earthquake-induced liquefaction or landslides at the Proposed Project site are considered low due to the conditions at the Proposed Project site. Additionally, activities associated with construction of the Proposed Project are not expected to exacerbate any potential soil instability at the Proposed Project site. Therefore, the Proposed Project impacts would be **less than significant**.

d) ***Less-than-Significant Impact***. Expansive soils are soils that possess a "shrink-swell" characteristic, also referred to as linear extensibility. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. This property is measured using the coefficient of linear extensibility (COLE) (NRCS 2017). The NRCS relies on linear extensibility measurements to determine the shrink-swell potential of soils. If the linear extensibility percent is more than 3 percent

(COLE=0.03), shrinking and swelling may cause damage to buildings, roads, and other structures (NRCS 2017). Changes in soil moisture can result from rainfall, landscape irrigation, utility leakage, roof drainage, and/or perched groundwater[4]. Expansive soils are typically very fine-grained and have a high to very high percentage of clay. Structural damage may occur incrementally over a long period of time, usually as a result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils.

NRCS Web Soil Survey data indicate that the soil underlying the Proposed Project site has a 2.9 percent linear extensibility rating, which is considered a low linear extensibility rating (NRCS 2021). Geotechnical investigations are required to address expansion potential. If site conditions differ from the web soil survey data, measures will be included in the geotechnical report that will address any risk associated with soil expansion. The impacts of the Proposed Project would be **less than significant**.

e) ***No Impact***. The Proposed Project does not include any components that would require soils adequate for the use of septic tanks or other alternative wastewater disposal system. None of the Proposed Project components include the use of septic tanks or an alternative wastewater disposal system; therefore, there would be **no impact** under this criterion.

f) ***Less-than-Significant Impact***. Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones; mammals, birds, fish, etc.), invertebrates (animals without backbones; starfish, clams, coral, etc.), and microscopic plants and animals (microfossils), and can include mineralized body parts, body impressions, or footprints and burrows. They are valuable, non-renewable, scientific resources used to document the existence of extinct life forms and to reconstruct the environments in which they lived. A significant impact would occur if a project would destroy a unique paleontological resource or site, or a unique geologic feature.

In its "Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources," the Society of Vertebrate Paleontology (SVP) defines four categories of paleontological potential for rock units: high, low, undetermined, and no potential: **High Potential**, rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources; **Low Potential**, rock units that are poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule; **Undetermined Potential**, rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment; and **No Potential**, rock units like high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites) that will not preserve fossil resources (SVP 2010). It is important to note that while paleontological potential as defined above can provide a rough idea of whether

[4] Perched groundwater is a local saturated zone above the water table that typically exists above an impervious layer (such as clay) of limited extent.

subsurface fossils may exist, the uniqueness or significance of a fossil locality is unknown until it is identified to a reasonably precise level (Scott and Springer 2003). Therefore, any fossil discovery should be treated as potentially unique or significant until determined otherwise by a professional paleontologist.

Geologic mapping indicates that the surficial geology at the Proposed Project site is entirely composed of deposits from the Pleistocene-age Turlock Lake Formation (Gutierrez 2011). According to the University of California Museum of Paleontology (UCMP) fossil localities online database, no significant vertebrate fossils have been discovered from within the Turlock Lake Formation in Sacramento County or anywhere in California, although several plant fossils have been recovered from the Turlock Lake Formation from Fresno County (UCMP 2021).

The risks of encountering and/or destroying paleontological resources increase with the amount of ground disturbance associated with a project; ground disturbing activities that would not require mass excavation of soil (i.e., post driven into the ground) would have a minimal impact on paleontological resources, as there would be little to no material to observe. Ground disturbance that includes mass open evacuation, or situations where excavation spoils may be examined, have a greater impact and an increased likelihood of encountering significant paleontological resources.

The Proposed Project wells would be constructed using the reverse rotary drilling method, and would include installing a 32-inch (in diameter) conductor casing to a minimum depth of 50 feet bgs, as well as installing an 18-inch (in diameter) casing to a depth of 600 feet bgs. The Proposed Project would also include construction of above ground facilities, which would require excavation to an unknown depth.

Project-related ground disturbance would result in a significant impact on the paleontological resources if it were to destroy unique paleontological resources during construction. However, as stated above, geologic mapping indicates that the surficial geology at the Proposed Project site is entirely composed of deposits from the Pleistocene-age Turlock Lake Formation and no significant vertebrate fossils have been discovered from within the Turlock Lake Formation in Sacramento County or anywhere in California. Therefore, this impact is **less than significant**.

References

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2.7 Greenhouse Gas Emissions

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VIII. GREENHOUSE GAS EMISSIONS — Would the project:				
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?	☐	☐	☒	☐

Discussion

a) ***Less-than-Significant Impact***. Due to the relatively small scale of the construction activities, the Proposed Project would contribute minimal greenhouse gas (GHG) emissions, and the impacts of the Proposed Project would be **less than significant**.

b) ***Less-than-Significant Impact***. Neither the SMAQMD nor any other agency within Sacramento County or the region has prepared a plan to bring the region into compliance with Assembly Bill (AB) 32 (Global Warming Solutions Act of 2006) or any other statewide GHG reduction plan. Also, the Proposed Project is of such a small scale that its emissions would not likely conflict with any such plan. The impacts of the Proposed Project would be **less than significant**.

2.8 Hazards and Hazardous Materials

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
IX.	**HAZARDS AND HAZARDOUS MATERIALS —** Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

Discussion

a, b) ***Less-than-Significant Impact***. According to the SWRCB GeoTracker database and the Department of Toxic Substances Control's (DTSC) EnviroStor database, there is one Leaking Underground Storage Tank (LUST) site (Pisor Fence Co. at 7850 Antelope North Road) approximately 700 feet northeast of the Proposed Project site. The case was closed on May 28, 1996, and the known current residual concentrations in the soil and groundwater do not represent a significant current or future public health, ecological, and water resources threat (RWQCB 1996; SWRCB 2021; DTSC 2021).

Construction of the Proposed Project would involve the routine use of small quantities of hazardous materials commonly used during construction activities such as fuels, lubricants, and oil for construction equipment. The storage and use of hazardous materials at the site during routine use could result in the accidental release of small quantities of hazardous materials, which could degrade soil and/or surface water within the Proposed Project area. This impact would be potentially significant.

BMPs would be implemented to minimize the risk of a hazardous materials release during construction activities. The use, storage, transport, and disposal of hazardous materials during construction, operation, and decommissioning of the Proposed Project would be carried out in accordance with federal, state, and county regulations. These requirements would ensure that hazardous materials used for construction would be stored in appropriate containers, with secondary containment to prevent a potential release. Additionally, Proposed Project-related spills of hazardous materials would be required to be reported to appropriate regulatory entities, including but not limited to Sacramento County; USFWS; CDFW and the RWQCB. Hazardous materials spills would be cleaned up immediately, and contaminated soils would be excavated and transported to approved disposal areas, consistent with state and local requirements. Therefore, impacts associated with the potential to create a significant hazard to the public or the environment would be **less than significant**.

Operation of the Proposed Project would involve the use and transportation of negligible amounts of hazardous materials, and any such materials would be properly stored and disposed of in accordance with applicable regulations. Project operation would include the use of water treatment chemicals (i.e., liquid sodium hypochlorite). The chemicals would be confined within the treatment facility, which would reduce any risk of exposure to the public or environment. The impact would be **less than significant**.

c) ***No Impact***. The Proposed Project site is not within 0.25 mile of a school. The nearest schools are Olive Grove Elementary School (approximately 0.6 mile west of the Proposed Project site) and Barrett Ranch Elementary School (approximately 1 mile west of the Proposed Project site). The Proposed Project would not emit hazardous emissions or handle hazardous materials within 0.25 mile of a school, so there would be **no impact**.

d) ***No Impact***. The Proposed Project is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Cortese List), nor is it near any such site. An independent review of the EnviroStor and GeoTracker hazardous materials databases confirms that the Proposed Project site is not included in those databases, and there are no active or closed hazardous materials sites within the Proposed Project site boundary. The nearest hazardous materials site is a closed LUST site, approximately 700 feet northeast of the Proposed Project site. There would be **no impact** under this criterion.

e) ***No Impact***. The Proposed Project site is not within 2 miles of a public or public use airport. The nearest airports are the Sacramento McClelland Airport (approximately 4 miles southwest of the Proposed Project site) and the Rio Linda Airport (approximately 6.4 miles southwest of the Proposed Project site). The Comprehensive Land Use Plan (CLUP) for the Sacramento McClelland and Rio Linda airports indicate that the Proposed Project site is not within any airport influence areas, noise contours, or safety zones (SACOG 1992a, 1992b). The Proposed Project activities would not result in a safety hazard or excessive noise for people working or residing in the area, and there would be **no impact**.

f) ***Less-than-Significant Impact***. The primary evacuation routes in Sacramento County would generally be the major interstates, highways, and arterials (Sacramento County 2021). Additional evacuation routes would be identified and coordinated by local law enforcement and emergency service responders as needed during an emergency situation. The Proposed Project does not include any road closures or any other components that would hinder an emergency response. In addition, as described in Section 1.6, *Measures Included to Minimize Impacts*, SSWD or its Contractor would prepare a Traffic Control Plan to maintain the safe operation of all vehicle modes along Antelope North Road during the period of construction of the well, pump station, and building. Impacts related to impairment or interference with an adopted emergency or evacuation plan would be **less than significant**.

g) ***Less-than-Significant Impact***. Based on mapping by the California Department of Forestry and Fire Protection (CAL FIRE) Forest Resource Assessment Program (FRAP), the Proposed Project site is not within a Very High Fire Hazard Severity Zone (CAL FIRE 2007). The use of construction equipment and the possible temporary on-site storage of fuels and/or other flammable construction chemicals could pose an increased fire risk resulting in injury to workers or the public during construction. However, Contractors would be required to comply with hazardous materials storage and fire protection regulations, which would minimize the potential for fire creation, and ensure that the risk of wildland fires during construction would be **less than significant**.

References

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2.9 Hydrology and Water Quality

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
X. HYDROLOGY AND WATER QUALITY — Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Discussion

a) ***Less-than-Significant Impact***. Construction and operation of the Proposed Project would be subject to the terms of the NPDES permit and included SWPPP. Additionally, Section 1.6, *Measures Included to Minimize Impacts*, includes specific measures to follow to minimize erosion and sedimentation into the stormwater system. As stated in Section 1.2, *Components of the P*roposed *Project*, the Proposed Project includes facilities to treat groundwater, should it be required, to meet DDW drinking water standards prior to being introduced into the SSWD distribution system. Compliance with the NPDES permit and included SWPPP, along with the Proposed Project design features, would reduce water quality impacts to a **less-than-significant** level.

b) ***Less-than-Significant Impact***. The Proposed Project would replace existing, aging water well source capacity that has been removed from service; therefore, the Proposed Project would not deplete groundwater supplies over current levels of groundwater extraction. The Proposed Project is intended to improve water quality and water system reliability. The Proposed Project would include a negligible amount of impervious surface where the

water storage reservoir, settling tank, building, emergency generator, and manganese treatment system are proposed. The introduction of additional impervious surfaces at the Proposed Project site would reduce groundwater recharge, although to a negligible degree. The impacts related to groundwater supplies and recharge would be **less than significant**.

c.i) ***Less-than-Significant Impact***. The Proposed Project site currently drains into the County's stormwater system where it would continue to drain during operation of the Proposed Project. Further, there are no water bodies at or near the Proposed Project site.

Both the Proposed Project design features and the required SWPPP would ensure the impacts related to erosion and siltation on- or off-site would be **less than significant**.

c.ii) ***Less-than-Significant Impact***. The Proposed Project would slightly increase the amount of runoff from the Proposed Project site due to the small increase in impervious surfaces. However, the Proposed Project site is not within a mapped flood zone, the increase would be negligible, and the runoff would drain into the existing stormwater system. Construction and operation of the Proposed Project would be regulated by the required SWPPP. The Proposed Project design features and compliance with the required SWPPP will ensure that impacts related to flooding on- or off-site would be **less than significant**.

c.iii) ***Less-than-Significant Impact***. Runoff from the Proposed Project site would increase slightly, due to the additional impervious surfaces; however, the increase would be negligible. The increase in runoff from the Proposed Project site could contribute to additional polluted runoff. However, the SWPPP and associated BMPs would be implemented during construction and reduce impacts related to polluted runoff. The impact would be **less than significant**.

c.iv) ***Less-than-Significant Impact***. According to current Federal Emergency Management Agency (FEMA) data, the Proposed Project site is not within a mapped flood zone (FEMA 2012). Therefore, although the Proposed Project includes the addition of minimal impervious surfaces, the Proposed Project would not impede or redirect flood flows; the impact, as it relates to impeding or redirect flood flows, would be **less than significant**.

d) ***No Impact***. According to FEMA National Flood Hazard Layer (NFHL), the Proposed Project site is not within a flood hazard zone. The Proposed Project is over 100 miles east of the Pacific Ocean and approximately 8.8 miles west of Folsom Lake; there is no risk of tsunami or seiche inundation. There would be **no impact** related to Proposed Project inundation.

e) ***Less-than-Significant Impact***. The Proposed Project would be constructed within the Sacramento Valley - North American Subbasin; the Sacramento Groundwater Authority (SGA) adopted a Groundwater Management Plan in 2014 for Sacramento County, North Basin (SGA 2014). Proposed Project construction activities would be regulated by the NPDES permit and SWPPP, and construction activities performed in-line with the BMPs included in the SWPPP. Proposed Project design features include BMPs to implement

during construction as well. Compliance with the SWPPP and implementation of the construction BMPs would ensure that the Proposed Project does not conflict with the Groundwater Management Plan for Sacramento County, North Basin. The impacts would be **less than significant**.

References

Federal Emergency Management Agency (FEMA). 2012. Flood Insurance Rate Map (FIRM), Sacramento, California and Incorporated Areas. Panel 0079H; Panel 79 of 705. Map Number: 06067C0079H. Effective Date: August 16, 2012. Map. Scale 1:500.

Sacramento Groundwater Authority (SGA). 2014. Groundwater Management Plan, Sacramento Valley - North Basin. Adopted December 11, 2014.

2.10 Noise

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XIII. NOISE — Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion

a) ***Less-than-Significant Impact***. The Proposed Project site is approximately 600 feet immediately southwest of a cluster of five parcels, which are a mix of residential and commercial. The closest residence is approximately 100 feet to the northwest of the Proposed Project.

The Sacramento County Code (Section 6.68) contains provisions pertaining to noise control, including rules and probations intended to minimize noise levels within the county (Sacramento County Code 2015). However, Section 6.68.090(e) contains the following exemption:

> *"Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided said activities do not take place between the hours of eight p.m. and six a.m. on weekdays and Friday commencing at eight p.m. through and including seven a.m. on Saturday; Saturdays commencing at eight p.m. through and including seven a.m. on the next following Sunday and on each Sunday after the hour of eight p.m. Provided, however, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after eight p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner."*

As stated in Chapter 1, *Project Description*, drilling and construction of the wells (A, B, and C) would take place over a period of 2 to 4 months and would require approximately 14 days of continuous (24 hours per day) drilling operations sometime during the 12- to 18-month construction period. Intermittent 24-hour drilling operations would be

necessary to prevent caving of the borehole and possible loss of the water supply well before completion.

As stated in Section 1.6, *Measures Included to Minimize Impacts*, due to the continuous well drilling, SSWD incorporated specific design features to implement during construction to reduce noise impacts. The design features would require the equipment to be rated for residential use, as well as planning for limited nighttime activities. Additionally, a submersible pump and motor or a VHS above grade motor equipped with a sound dampening enclosure will be designed and constructed. Sound curtains will be installed prior to drilling to reduce noise impacts.

Incorporation of these noise reduction measures would ensure that noise impacts are **less than significant** during construction.

b) ***Less-than-Significant Impact***. The Proposed Project would not expose persons to excessive groundborne vibrations or noise levels due to the limited duration of construction activities. Additionally, the included design features to reduce noise impacts would ensure that any noise impacts are **less than significant**.

c) ***No Impact***. As described in Section 2.8, *Hazards and Hazardous Materials*, there are no public or public use airports within 2 miles of the Proposed Project site. Additionally, the Proposed Project site is not within any airport influence areas, noise contours, or safety zones according to the CLUPs for the Sacramento McClelland and Rio Linda airports (SACOG 1992a, 1992b). There would be **no impact** related to safety hazards or excessive noise for people working or residing in the Proposed Project site.

References

Sacramento Area Council of Governments (SACOG). 1992a. Sacramento McClelland Airport Comprehensive Land Use Plan.

———. 1992b. Rio Linda Airport Comprehensive Land Use Plan.

2.11 Population and Housing

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XIV. POPULATION AND HOUSING — Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

a) ***Less-than-Significant Impact***. The Proposed Project would improve water reliability within the SSWD's North Service Area by replacing existing, outdated facilities, and would not increase the capacity of the system to induce growth. The impacts on population growth would be **less than significant**.

b) ***No Impact***. The Proposed Project would not require the displacement of people or housing to necessitate construction. There would be **no impact**.

2.12 Public Services

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XV. PUBLIC SERVICES —				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☒	☐
iv) Parks?	☐	☐	☒	☐
v) Other public facilities?	☐	☐	☒	☐

Discussion

a.i–v) ***Less-than-Significant Impact***. The Proposed Project would not require the addition of or physically alter government facilities, and would not require the need for new or physically altered government facilities. As such, the Proposed Project would not cause significant impacts to maintain service ratios or response times for any public services. The impacts on public services would be **less than significant**.

2.13 Transportation

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

Discussion

a, d) ***Less-than-Significant Impact***. During construction, the Proposed Project would require the delivery of equipment and materials used for construction, as well as requiring worker travel, which would generate vehicle trips for the duration of the construction phase. During operation, the Proposed Project site would require periodic visits to maintain the new facilities and deliver the required water treatment chemicals. These maintenance and delivery activities would generally be less than one trip per day.

As stated in Section 2.8, *Hazards and Hazardous Materials*, the primary evacuation routes in Sacramento County would generally be the major interstates, highways, and arterials (Sacramento County 2021). Additional evacuation routes would be identified and coordinated by local law enforcement and emergency service responders as needed during an emergency situation. The Proposed Project does not include any road closures or any other components that would hinder an emergency response or result in inadequate emergency access.

Additionally, as stated in Section 1.6, *Measures Included to Minimize Impacts*, SSWD would prepare a Traffic Control Plan, which the Contractor will be required to implement during construction. The Traffic Control Plan would include measures to implement to ensure safe operation of vehicles and bicycles, and pedestrian traffic along the sidewalk.

Compliance with measures included in the Traffic Control Plan would ensure that any potential impacts associated with traffic and transportation would be **less than significant**.

b) ***Less-than-Significant Impact***. Section 15064.3 of the CEQA Guidelines establishes specific considerations for evaluating a project's transportation impacts. The CEQA Guidelines identify vehicle miles traveled—the amount and distance of automobile travel attributable to a project—as the most appropriate measure of transportation impacts. Other relevant considerations include the effects of a project on transit and non-motorized

travel. The well drilling process for the Proposed Project would last between 2 and 4 months and the above ground facility construction would last between 12 and 18 months. Operation of the Proposed Project would not add a substantial amount of vehicle miles traveled to the Proposed Project site. The Proposed Project would cause limited disruptions to traffic along Antelope North Road, as no road work or road closures are planned as part of the Proposed Project. Nevertheless, a Traffic Control Plan would be prepared prior to construction to maintain safe operation of all traffic along Antelope North Road, to be implemented during all construction activities. Therefore, this impact would be **less than significant**.

c) ***No Impact***. The Proposed Project would not include the creation or alteration of any roadway, and would not substantially increase hazards due to any geometric design features or incompatible uses. There would be **no impact** under this criterion.

d) ***Less-than-Significant Impact***. As stated in Section 2.8, *Hazards and Hazardous Materials*, the primary evacuation routes in Sacramento County would generally be the major interstates, highways, and arterials (Sacramento County 2021). Additional evacuation routes would be identified and coordinated by local law enforcement and emergency service responders as needed during an emergency situation. The Proposed Project does not include any road closures or any other components that would hinder an emergency response or result in inadequate emergency access. The Proposed Project would not interfere or impair emergency access routes, and the impact would be **less than significant**.

References

Sacramento County. 2021. Evacuation Functional Annex. Sacramento County Office of Emergency Services. August 2021.

2.14 Tribal Cultural Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XVIII. TRIBAL CULTURAL RESOURCES —				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources. Code Section 5020.1(k), or	☐	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Environmental Setting

This section relies on the information and findings presented in the Proposed Project's confidential cultural resources technical report: *Wells 81 A, B, C North Antelope/Poker Project, Antelope, Sacramento County: Cultural Resources Inventory Report* (Hoffman 2021). This study included an overview of the environmental, ethnographic, and historic background of the Proposed Project area, with an emphasis on aspects related to human occupation. More detailed information regarding the results of the cultural resources study can be found in that report. Please contact SSWD to inquire about reviewing this report.

Much of the background context and methodology for analyzing potential impacts of the Proposed Project on tribal cultural resources is the same as for the cultural resources impact analysis. Therefore, to avoid redundancy, the background context and methods information presented in Section 2.4, *Cultural Resources*, of this IS/MND is not repeated here.

This section uses the key term "tribal cultural resource" (TCR). TCRs consist of sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing, in the National Register of Historic Places, the California Register, or a local register of historical resources. The term *pre-contact* is used as a chronological adjective to refer to the period prior to Euroamerican arrival in the Proposed Project area.

Records Search

The CHRIS records search findings are presented in Section 2.4, *Cultural Resources*, above. The results are summarized here.

The NCIC has record of one previously recorded cultural resource mapped within the 0.25-mile search area, although this resource (P-34-000505) is not mapped within the Proposed Project area and consists of the historic-era Southern Pacific Railroad. NCIC has records of 11 previous cultural resources studies that have been conducted in or within 0.25 mile of the Proposed Project area; only two of these have covered a portion of the Proposed Project area.

Ethnographic Literature Research

A review of ethnographic literature for the current investigation revealed that the closest documented Native American village near the Proposed Project area was the Nisenan village *Pitsokut*, which was near the modern-day city of Roseville, approximately 3 miles northeast of the Proposed Project area (Kroeber 1925 [1976]).

Native American Correspondence

ESA contacted the NAHC on September 20, 2021 in request of a search of the NAHC's SLF and a list of Native American representatives who may have interest in the Proposed Project. To date, there has been no response received by the NAHC.

In support of required Native American consultation for the Project pursuant to PRC § 21080.3, SSWD sent letters on October 5, 2021, via certified mail, to the following Native American representatives: Raymond Hitchcock, Chairperson, Wilton Rancheria Chairperson; and Gene Whitehouse, Chairperson, United Auburn Indian Community (UAIC) of the Auburn Rancheria. These letters provided information on the Proposed Project and requested that the recipients notify SSWD if they would like to consult pursuant to PRC § 21080.3. To date, SSWD received a response from UAIC stating they decline to consult on the Proposed Project.

Field Survey

The methods for the field survey are presented in Section 2.4, *Cultural Resources*. The survey results are summarized here. During the field survey, no cultural resources, potential TCRs, or indicators thereof were identified in the Proposed Project area.

Summary of Resources Identified

Through background research, Native American correspondence, and a field survey conducted for the Proposed Project, no TCRs—including Native American archaeological resources or human remains that could qualify as TCRs—were identified in the Proposed Project area.

Discussion

The two impact discussion questions from CEQA Guidelines Appendix G related to TCRs are described together below.

a.i, a.ii) ***Less-than-Significant Impact with Mitigation Incorporated.*** No TCRs, as defined in PRC Section 21074, have been identified in the Proposed Project area through archival research, field survey, or Native American consultation. Therefore, the Proposed Project is not anticipated to impact any TCRs.

However, because the Proposed Project would involve ground-disturbing activities that may extend into undisturbed soil, it is possible that such actions could unearth, expose, or disturb subsurface archaeological resources that were not identified on the surface. If previously unrecorded archaeological deposits are present in the Proposed Project area, and if they are found to qualify as TCRs, pursuant to PRC Section 21074, any impacts of the Proposed Project on the resource would be potentially significant. Such potentially significant impacts would be reduced to a less-than-significant level by implementing **Mitigation Measures CUL-1** and **CUL-2**, as described in Section 2.4.

References

Hoffman, Robin. 2021. *Wells 81A, B, C North Antelope/Poker Project, Antelope, Sacramento County: Cultural Resources Inventory Report*, prepared by Environmental Science Associates, Petaluma, CA, prepared for Sacramento Suburban Water District1.

Kroeber, Alfred L. 1925. *Handbook of the Indians of California*, Bureau of American Ethnology Bulletin 78, Smithsonian Institution, Washington, D.C., 1976 reprinted ed., Dover Publications, Inc., New York, NY.

2.15 Utilities and Service Systems

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XIX. UTILITIES AND SERVICE SYSTEMS — Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion

a) ***Less-than-Significant Impact***. The Proposed Project would improve water reliability within the SSWD's North Service Area by replacing existing, outdated facilities, and would not result in the expansion of water facilities. Water from the existing water system is available and would only be used during construction of the Proposed Project. Once operational, the Proposed Project would provide water to the SSWD water supply system and no outside water would be necessary. In addition, the Proposed Project would not result in the relocation or construction of new or expanded utilities or service systems (e.g., wastewater treatment, storm water drainage, etc.). The impact would be **less than significant**.

b) ***Less-than-Significant Impact***. The Proposed Project would utilize the existing SSWD pipes in the area for use during construction. The Proposed Project would supplement the aging water infrastructure to support water supply availability in the area. No entitlements are required to pump groundwater at the Proposed Project site. The potential impacts on the water supply availability would be **less than significant**.

c) ***Less-than-Significant Impact***. The Proposed Project would generate a negligible amount of discharge into the wastewater system (e.g., above ground facility floor drains that drain into the wastewater system) and would not increase the demand on existing wastewater treatment in the region. The impacts would be **less than significant**.

d, e) ***Less-than-Significant Impact***. The Proposed Project would generate solid waste during construction. Any solid waste generated during construction would be hauled off-site and disposed of in an appropriate waste facility, in accordance with all applicable federal, state, and local management requirements. Impacts related to the generation and disposal of solid waste would be **less than significant**.

2.16 Wildfire

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

Discussion

a–d) ***Less-than-Significant Impact***. As discussed in Section 2.8, *Hazards and Hazardous Materials*, the Proposed Project site is not located within a designated fire hazard severity zone (CAL FIRE 2007), nor would the Proposed Project substantially impair an adopted emergency response or evacuation plan. Additionally, the Proposed Project is not in an area where slope or prevailing winds, or where the installation or maintenance of infrastructure, would exacerbate wildfire risk. As described in Section 2.6, *Geology and Soils*, the Proposed Project is not in an area of significant landslide risk as the area is relatively flat. As such, there would be no increase in the risks associated with slope failure or flooding due to runoff, post-fire slope instability, or drainage changes. Impacts associated with wildfire risk would be **less than significant**.

References

California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fire Hazard Severity Zones in SRA in Sacramento County. Forest Resources Assessment Program. Adopted on November 7, 2007. Map. Scale 1:100,000.

2.17 Mandatory Findings of Significance

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XXI. MANDATORY FINDINGS OF SIGNIFICANCE —				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion

a) ***Less-than-Significant Impact with Mitigation Incorporated***. As described in the preceding impact discussions, the impacts related to the potential of the Proposed Project to substantially degrade the environment would be less than significant with incorporated mitigation measures. As described in this IS/MND, the Proposed Project has the potential for impacts related to biological resources, cultural resources, and paleontological resources. However, these impacts would be avoided or reduced to a **less-than-significant** level with the incorporation of avoidance and mitigation measures discussed in each section.

b) ***Less-than-Significant Impact***. Given the small size of the Proposed Project, activities are not expected to contribute to cumulatively significant impacts. Additionally, any other past, current, or future projects would be subject to many of the same federal, state, and local laws and regulations during the construction and operation phases of those potential projects. Given the limited duration of the Proposed Project construction and the incorporated design features to reduce impacts, the Proposed Project's potential to contribute to cumulative significant impact would be **less than significant**.

c) ***Less-than-Significant Impact***. The only environmental impacts created as a result of the Proposed Project with the potential to have substantial adverse effects on human beings would be air quality and noise-related impacts. As stated in Section 2.2, *Air Quality*, the Proposed Project would not generate emissions that would exceed the SMAQMD established thresholds; therefore, these impacts are not considered cumulatively considerable. Additionally, as stated in Section 2.10, *Noise*, the Proposed Project would minimize noise-related impacts by utilizing residential rated equipment; therefore, the

noise-related impacts would not be cumulatively considerable and would be **less than significant**.

Appendix A

Biological Section Data Sources

TABLE 1
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES CONSIDERED IN THE PROJECT SITE

Common Name *Scientific Name*	Status (Federal/State/ CRPR)	Habitat Requirements	Identification/ Survey Period	Potential to Occur
Plants				
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	--/--/1B	Annual herb found in mesic areas in valley and foothill grassland from 30 to 229 meters.	Blooming period: April – August.	**None**; the nonnative annual grassland within the Project site does not contain mesic areas. There are no CNDDB records within 5 miles of the Project site.
Big-scale balsamroot *Balsamorhiza macrolepis* var. *macrolepis*	--/--/1B	Perennial herb found in chaparral, cismontane woodland, and valley and foothill grassland on serpentinite soils, from 90 to 1,555 meters.	Blooming period: March – June.	**None**; while the nonnative annual grassland within the Project site provides marginal habitat, the Project site occurs outside of the known extant elevation range for the species. There are no CNDDB records within 5 miles of the Project site.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	--/CE/1B	Annual herb found on clay soils around the lake margins of marshes and swamps and in vernal pools from 10 to 2,375 meters.	Blooming period: April – August.	**None**; while there are CNDDB records within 5 miles, the Project site does not provide habitat for this species.
Dwarf downingia *Downingia pusilla*	--/--/2	Annual herb found in mesic areas within valley and foothill grassland and vernal pools from 1 to 445 meters.	Blooming period: March – May.	**Low**; the nonnative annual grassland within the Project site does not contain mesic areas. There are CNDDB records within 5 miles of the Project site.
Hisbid bird's beak *Chloropyron molle* ssp. *hispidum*	--/--/1B	Annual hemiparasitic herb found on alkaline substrate in meadows and seeps, playas, and valley and foothill grassland from 1 to 155 meters.	Blooming period: June - September	**None**; while the nonnative annual grassland within the Project site provides marginal habitat, the Project site does not contain suitable soils required for the species. There are no CNDDB records within 5 miles of the Project site.
Legenere *Legenere limosa*	--/CT/1B	Annual herb found in vernal pools from 1 to 880 meters.	Blooming period: April – June.	**None**; while there are CNDDB records within 5 miles, the Project site does not provide habitat for this species.
Pincushion navarretia *Navarretia myersii*	--/--/1B	Annual herb found in vernal pools, which are often acidic, from 20 to 330 meters.	Blooming period: April – May.	**None**; the Project site does not provide habitat and there are no CNDDB records for this species within 5 miles of the Project site.
Red Bluff dwarf rush *Juncus leiospermus* var. *leiospermus*	--/--/1B	Annual herb found in vernally mesic chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools from 35 to 1,250 meters.	Blooming period: March - June	**None**; the nonnative annual grassland within the Project site does not contain mesic areas. There are no CNDDB records within 5 miles of the Project site.
Sacramento orcutt grass *Orcuttia viscida*	FE/CE/1B	Annual herb found in vernal pools from 30 to 100 meters.	Blooming period: April – September.	**None**; the Project site does not provide habitat for this species. There are no CNDDB records within 5 miles of the Project site.

TABLE 1
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES CONSIDERED IN THE PROJECT SITE

Common Name *Scientific Name*	Status (Federal/State/ CRPR)	Habitat Requirements	Identification/ Survey Period	Potential to Occur
Sanford's arrowhead *Sagittaria sanfordii*	FT/CE/1B	Perennial rhizomatous herb found in marshes and swamps in assorted shallow freshwater areas from 0 to 650 meters.	Blooming period: May – October.	**None**; the Project site does not provide habitat for this species. There are CNDDB records within 5 miles of the Project site.
Slender orcutt grass *Orcuttia tenuis*	--/--/1B	Annual herb found in vernal pools and wetlands.	Blooming period: May -- September	**None**; the Project site does not provide habitat for this species. There are no CNDDB records within 5 miles of the Project site.
Wildlife				
Invertebrates				
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT/--/--	Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *caerulea*). Prefers to lay eggs in elderberries 1-8 inches in diameter; some preference shown for "stressed" elderberries.	Adults emerge in spring until June. Exit holes visible year – round.	**None**; the Project site does not contain elderberry shrubs with stems one inch or greater in diameter at ground level. There are no CNDDB records within 5 miles of the Project site.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT/--/--	Endemic to the grasslands of the central valley, central coast mountains, and south coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	USFWS protocol-level wet-season sampling and/or dry season cyst identification.	**None**; the Project site does not provide habitat for this species. There are CNDDB records within 5 miles of the Project site.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE/--/--	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	USFWS protocol-level wet-season sampling and/or dry season cyst identification.	**None**; the Project site does not provide habitat for this species. There are CNDDB records within 5 miles of the Project site.
Fish				
Central Valley steelhead DPS *Oncorhynchus mykiss*	FT/--/--	Inhabits rivers and streams tributary to the Sacramento-San Joaquin Rivers and Delta ecosystems.	Spawn in winter and spring.	**None**; the Project site does not provide habitat for this species. There are CNDDB records within 5 miles of the Project site.
Delta smelt *Hypomesus transpacificus*	FT/SE/--	Open surface waters in the Sacramento/San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Found in Delta estuaries with dense aquatic vegetation and low occurrence of predators. May be affected by downstream sedimentation.	Consult agency	**None**; the Project site does not provide habitat for this species. There are no CNDDB records within 5 miles of the Project site.

TABLE 1
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES CONSIDERED IN THE PROJECT SITE

Common Name *Scientific Name*	Status (Federal/State/ CRPR)	Habitat Requirements	Identification/ Survey Period	Potential to Occur
Amphibians/Reptiles				
California red-legged frog *Rana draytonii*	FT/CSC/--	Requires a permanent water source and is typically found along quiet, slow-moving streams, ponds, or marsh communities with emergent vegetation. Believed extirpated from the Central Valley floor since 1960s.	Aquatic surveys of breeding sites between January and September. Optimally after April 15.	**None**; the Project site does not provide habitat and occurs outside of the known extant geographic range for this species. There are no CNDDB records within 5 miles of the Project site.
California tiger salamander *Ambystoma californiense*	FT/ST/--	Found in vernal pools, ephemeral wetlands, and seasonal ponds, including constructed stockponds, in grassland and oak savannah plant communities from 3 to 1,054 meters.	Aquatic surveys between March and May.	**None;** the Project site does not provide habitat for this species. There are no CNDDB records within 5 miles of the Project site.
Giant garter snake *Thamnophis gigas*	FT/CT/--	Found in agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands. Upland habitat should have burrows or other soil crevices suitable for snakes to reside during their dormancy period (November – mid March). This species is known from Sacramento, Sutter, Butte, Colusa, and Glenn counties.	Active outside of dormancy period November-mid March	**None**; the Project site occurs outside of the known geographic range for this species. There are no CNDDB records within 5 miles of the Project site.
Western pond turtle *Emys marmorata*	--/CSC/--	Agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands.	Active outside of dormancy period November – February	**None;** the Project site does not provide habitat for this species. There are no CNDDB records within 5 miles of the Project site.
Western spadefoot *Spea hammondii*	--/CSC/--	Found in open grasslands and woodlands. Requires vernal pools or seasonal wetlands for breeding.	Year – round	**None;** while the nonnative annual grassland provides upland habitat, no aquatic habitat required for breeding is present within the Project site or immediate vicinity. There are CNDDB records within 5 miles of the Project site.
Birds				
Bank swallow *Riparia riparia*	--/CT/--	Nests in riverbanks and forages over riparian areas and adjacent uplands.	April – July	**None**; the Project site does not provide nesting habitat for this species.
Burrowing owl *Athene cunicularia*	--/CSC/-- (burrowing sites and some wintering sites)	Nests in burrows in the ground, often in old ground squirrel burrows or badger, within open dry grassland and desert habitat. The burrows are found in dry, level, open terrain, including prairie, plains, desert, and grassland with low height vegetation for foraging and available perches, such as fences, utility poles, posts, or raised rodent mounds.	Year – round/Breeding season surveys between March and August.	**Low**; while the spoils pile and burrows within the nonnative annual grassland provide habitat, there are no CNDDB records within 5 miles of the Project site.

TABLE 1
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES CONSIDERED IN THE PROJECT SITE

Common Name *Scientific Name*	Status (Federal/State/ CRPR)	Habitat Requirements	Identification/ Survey Period	Potential to Occur
California black rail *Laterallus jamaicensis coturniculus*	--/CT/--	Saltwater, brackish, and freshwater marshes. This species is known from Alameda, Butte, Contra Costa, Imperial, Los Angeles, Marin, Napa, Nevada, Orange, Placer, Sacramento, San Bernardino, San Diego, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, Sutter, and Yuba counties, in California.	Year – round	**None**; the Project site does not provide nesting habitat for this species. There are no CNDDB records within 5 miles of the Project site.
Grasshopper sparrow *Ammodramus savannarum*	--/CSC/--	Frequents dense, dry, or well drained grassland, especially native grassland. Nests at base of overhanging clump of grass.	April – July	**Low**; while the nonnative annual grassland within the Project site provides habitat, there are no CNDDB records within 5 miles of the Project site.
Purple martin *Progne subis*	--/CSC/--	Often nests in tall, old trees near bodies of water in woodland and conifer habitats. Feed in open areas near water and nest in tree cavities.	Year – round	**None**; the Project site does not provide nesting habitat for this species. There are no CNDDB records within 5 miles of the Project site.
Song sparrow *Melospiza melodia*	--/CSC	Nests on the ground and in marshes. Inhabits grassland, chaparral, orchard, woodland, wetland, riparian, ands scrub-shrub. In California this species is known from Alameda, Contra Costa, Marin, Napa, Sacramento, San Mateo, Santa Clara, Solano, Sonoma, and Stanislaus counties.	February - September	**None**; the Project site does not provide nesting habitat for this species. There are no CNDDB records within 5 miles of the Project site.
Swainson's hawk *Buteo swainsoni*	--/CT/--	Nest peripherally to valley riparian systems lone trees or groves of trees in agricultural fields. Valley oak, Fremont cottonwood, walnut, and large willow trees, ranging in height from 41 to 82 feet, are the most commonly used nest trees in the Central Valley. This species is known from Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Inyo, Kern, Kings, Lassen, Los Angeles, Madera, Merced, Modoc, Mono, Napa, Placer, Plumas, Sacramento, San Bernardino, San Joaquin, San Luis Obispo, Siskiyou, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties.	March – October	**Low**; while the nonnative annual grassland provides foraging habitat, there is no large trees suitable for nesting habitat within or in the vicinity of the Project site. There are CNDDB records within 5 miles of the Project site.
Tricolored blackbird *Agelaius tricolor*	--/CT, CSC/-- (nesting colony)	Nests in dense blackberry, cattail, tules, bulrushes, sedges, willow, or wild rose within freshwater marshes. Nests in large colonies of at least 50 pairs (up to thousands of individuals).	Year – round	**None**; the Project site does not provide nesting habitat for this species. There are no CNDDB records within 5 miles of the Project site.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT/SE/--	Nests in riparian forests along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, w/lower story of blackberry, nettles, or wild grape.	Year - round	**None**; the Project site does not provide suitable nesting habitat for this species. There are no CNDDB records within 5 miles of the Project site.

TABLE 1
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES CONSIDERED IN THE PROJECT SITE

Common Name *Scientific Name*	Status (Federal/State/ CRPR)	Habitat Requirements	Identification/ Survey Period	Potential to Occur
White-tailed kite *Elanus leucurus*	--/CFP/-- (nesting)	Nests in isolated trees or woodland areas with suitable open foraging habitat.	February 15 – August 31	**None**; the Project site does not provide nesting habitat for this species. There are CNDDB records within 5 miles of the Project site.
Mammals				
American badger *Taxidea taxus*	--/CSC/--	Found in a variety of grasslands, shrublands, and open woodlands throughout California.	Year – round	**Low**; the annual grassland within the Project site provides habitat, however, there are no CNDDB records within 5 miles of the Project site.
Pallid bat *Antrozous pallidus*	--/CSC/--	Most abundant in oak woodland with tree cavities, savannah, and riparian habitats. Roosts in crevices and hollows in trees, rocks, cliffs, bridges, and buildings.	Year – round	**None**; the Project site does not provide roosting habitat for this species. There are CNDDB records within 5 miles of the Project site.

Status Codes

Federally-Listed Species:	**California State Ranked Species:**	**CNPS* Rank Categories:**
FE = federal endangered	CE = California state endangered	1A = plants presumed extinct in California
FT = federal threatened	CT = California state threatened	1B = plants rare, threatened, or endangered in California and elsewhere
FC = candidate	CR = California state rare	2 = plants rare, threatened, or endangered in California, but common elsewhere
PT = proposed threatened	CSC = California species of special Concern	
FPD = proposed for delisting	CCT = California state threatened candidate	
FD = delisted	CFP = California fully protected	

SOURCES: CDFW, 2021a; CNPS, 2021; USFWS, 2021a

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

Query Summary:
Quad IS (Citrus Heights (3812163) OR Pleasant Grove (3812174) OR Roseville (3812173) OR Rocklin (3812172) OR Rio Linda (3812164) OR Folsom (3812162) OR Sacramento East (3812154) OR Carmichael (3812153) OR Buffalo Creek (3812152))

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Accipiter cooperii	Cooper's hawk	Birds	ABNKC12040	118	5	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Cismontane woodland, Riparian forest, Riparian woodland, Upper montane coniferous forest
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	955	35	None	Threatened	G1G2	S1S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland
Alkali Meadow	Alkali Meadow	Herbaceous	CTT45310CA	8	1	None	None	G3	S2.1	null	null	Meadow & seep, Wetland
Alkali Seep	Alkali Seep	Herbaceous	CTT45320CA	10	1	None	None	G3	S2.1	null	null	Meadow & seep, Wetland
Ammodramus savannarum	grasshopper sparrow	Birds	ABPBXA0020	27	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Valley & foothill grassland
Andrena subapasta	An andrenid bee	Insects	IIHYM35210	5	2	None	None	G1G2	S1S2	null	null	null
Antrozous pallidus	pallid bat	Mammals	AMACC10010	420	1	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive, WBWG_H-High Priority	Chaparral, Coastal scrub, Desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland
Aquila chrysaetos	golden eagle	Birds	ABNKC22010	324	1	None	None	G5	S3	null	BLM_S-Sensitive, CDF_S-Sensitive, CDFW_FP-Fully Protected, CDFW_WL-Watch List, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Broadleaved upland forest, Cismontane woodland, Coastal prairie, Great Basin grassland, Great Basin scrub, Lower montane coniferous forest, Pinon & juniper woodlands, Upper montane coniferous forest, Valley & foothill grassland
Ardea alba	great egret	Birds	ABNGA04040	43	5	None	None	G5	S4	null	CDF_S-Sensitive, IUCN_LC-Least Concern	Brackish marsh, Estuary, Freshwater marsh, Marsh & swamp, Riparian forest, Wetland

Ardea herodias	great blue heron	Birds	ABNGA04010	156	10	None	None	G5	S4	null	CDF_S-Sensitive, IUCN_LC-Least Concern	Brackish marsh, Estuary, Freshwater marsh, Marsh & swamp, Riparian forest, Wetland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	2011	31	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Balsamorhiza macrolepis	big-scale balsamroot	Dicots	PDAST11061	51	1	None	None	G2	S2	1B.2	BLM_S-Sensitive, USFS_S-Sensitive	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
Bombus crotchii	Crotch bumble bee	Insects	IIHYM24480	437	1	None	Candidate Endangered	G3G4	S1S2	null	null	null
Branchinecta lynchi	vernal pool fairy shrimp	Crustaceans	ICBRA03030	795	89	Threatened	None	G3	S3	null	IUCN_VU-Vulnerable	Valley & foothill grassland, Vernal pool, Wetland
Branchinecta mesovallensis	midvalley fairy shrimp	Crustaceans	ICBRA03150	144	7	None	None	G2	S2S3	null	null	Vernal pool, Wetland
Buteo regalis	ferruginous hawk	Birds	ABNKC19120	107	1	None	None	G4	S3S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Great Basin grassland, Great Basin scrub, Pinon & juniper woodlands, Valley & foothill grassland
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2541	43	None	Threatened	G5	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland
Chloropyron molle ssp. hispidum	hispid salty bird's-beak	Dicots	PDSCR0J0D1	35	1	None	None	G2T1	S1	1B.1	null	Alkali playa, Meadow & seep, Wetland
Clarkia biloba ssp. brandegeeae	Brandegee's clarkia	Dicots	PDONA05053	89	2	None	None	G4G5T4	S4	4.2	SB_UCSC-UC Santa Cruz	Chaparral, Cismontane woodland, Lower montane coniferous forest
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	ABNRB02022	165	1	Threatened	Endangered	G5T2T3	S1	null	BLM_S-Sensitive, NABCI_RWL-Red Watch List, USFS_S-Sensitive, USFWS_BCC-Birds of Conservation Concern	Riparian forest
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Insects	IICOL48011	271	34	Threatened	None	G3T2	S3	null	null	Riparian scrub
Downingia pusilla	dwarf downingia	Dicots	PDCAM060C0	132	22	None	None	GU	S2	2B.2	null	Valley & foothill grassland, Vernal pool, Wetland
Dumontia oregonensis	hairy water flea	Crustaceans	ICBRA23010	2	1	None	None	G1G3	S1	null	null	Vernal pool
Elanus leucurus	white-tailed kite	Birds	ABNKC06010	180	29	None	None	G5	S3S4	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland
Elderberry Savanna	Elderberry Savanna	Riparian	CTT63440CA	4	2	None	None	G2	S2.1	null	null	Riparian scrub
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1398	10	None	None	G3G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-	Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, Klamath/North

											Vulnerable, USFS_S-Sensitive	coast standing waters, Marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland
Falco columbarius	merlin	Birds	ABNKD06030	37	1	None	None	G5	S3S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Estuary, Great Basin grassland, Valley & foothill grassland
Fritillaria agrestis	stinkbells	Monocots	PMLIL0V010	32	4	None	None	G3	S3	4.2	null	Chaparral, Cismontane woodland, Pinon & juniper woodlands, Ultramafic, Valley & foothill grassland
Gonidea angulata	western ridged mussel	Mollusks	IMBIV19010	157	1	None	None	G3	S1S2	null	null	Aquatic
Gratiola heterosepala	Boggs Lake hedge-hyssop	Dicots	PDSCR0R060	99	9	None	Endangered	G2	S2	1B.2	BLM_S-Sensitive	Freshwater marsh, Marsh & swamp, Vernal pool, Wetland
Hydrochara rickseckeri	Ricksecker's water scavenger beetle	Insects	IICOL5V010	13	2	None	None	G2?	S2?	null	null	Aquatic, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters
Juncus leiospermus var. ahartii	Ahart's dwarf rush	Monocots	PMJUN011L1	13	2	None	None	G2T1	S1	1B.2	null	Valley & foothill grassland
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	Monocots	PMJUN011L2	62	1	None	None	G2T2	S2	1B.1	BLM_S-Sensitive, USFS_S-Sensitive	Chaparral, Cismontane woodland, Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland
Lasionycteris noctivagans	silver-haired bat	Mammals	AMACC02010	139	2	None	None	G3G4	S3S4	null	IUCN_LC-Least Concern, WBWG_M-Medium Priority	Lower montane coniferous forest, Oldgrowth, Riparian forest
Laterallus jamaicensis coturniculus	California black rail	Birds	ABNME03041	303	1	None	Threatened	G3G4T1	S1	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_NT-Near Threatened, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern	Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland
Legenere limosa	legenere	Dicots	PDCAM0C010	83	19	None	None	G2	S2	1B.1	BLM_S-Sensitive, SB_UCBG-UC Botanical Garden at Berkeley	Vernal pool, Wetland
Lepidurus packardi	vernal pool tadpole shrimp	Crustaceans	ICBRA10010	329	58	Endangered	None	G4	S3S4	null	IUCN_EN-Endangered	Valley & foothill grassland, Vernal pool, Wetland
Linderiella occidentalis	California linderiella	Crustaceans	ICBRA06010	508	91	None	None	G2G3	S2S3	null	IUCN_NT-Near Threatened	Vernal pool
Melospiza melodia	song sparrow ("Modesto" population)	Birds	ABPBXA3010	92	1	None	None	G5	S3?	null	CDFW_SSC-Species of Special Concern	null
Navarretia myersii ssp. myersii	pincushion navarretia	Dicots	PDPLM0C0X1	16	1	None	None	G2T2	S2	1B.1	null	Vernal pool, Wetland
Northern Claypan	Northern Claypan	Herbaceous	CTT44120CA	21	1	None	None	G1	S1.1	null	null	Vernal pool, Wetland

Vernal Pool	Vernal Pool											
Northern Hardpan Vernal Pool	Northern Hardpan Vernal Pool	Herbaceous	CTT44110CA	126	22	None	None	G3	S3.1	null	null	Vernal pool, Wetland
Northern Volcanic Mud Flow Vernal Pool	Northern Volcanic Mud Flow Vernal Pool	Herbaceous	CTT44132CA	7	5	None	None	G1	S1.1	null	null	Vernal pool, Wetland
Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	Fish	AFCHA0209K	31	3	Threatened	None	G5T2Q	S2	null	AFS_TH-Threatened	Aquatic, Sacramento/San Joaquin flowing waters
Orcuttia tenuis	slender Orcutt grass	Monocots	PMPOA4G050	100	1	Threatened	Endangered	G2	S2	1B.1	SB_UCBG-UC Botanical Garden at Berkeley	Vernal pool, Wetland
Orcuttia viscida	Sacramento Orcutt grass	Monocots	PMPOA4G070	12	11	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Vernal pool, Wetland
Pandion haliaetus	osprey	Birds	ABNKC01010	504	1	None	None	G5	S4	null	CDF_S-Sensitive, CDFW_WL-Watch List, IUCN_LC-Least Concern	Riparian forest
Phalacrocorax auritus	double-crested cormorant	Birds	ABNFD01020	39	1	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Riparian forest, Riparian scrub, Riparian woodland
Progne subis	purple martin	Birds	ABPAU01010	71	10	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Broadleaved upland forest, Lower montane coniferous forest
Riparia riparia	bank swallow	Birds	ABPAU08010	298	4	None	Threatened	G5	S2	null	BLM_S-Sensitive, IUCN_LC-Least Concern	Riparian scrub, Riparian woodland
Sagittaria sanfordii	Sanford's arrowhead	Monocots	PMALI040Q0	126	21	None	None	G3	S3	1B.2	BLM_S-Sensitive	Marsh & swamp, Wetland
Spea hammondii	western spadefoot	Amphibians	AAABF02020	1422	17	None	None	G2G3	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Taxidea taxus	American badger	Mammals	AMAJF04010	594	4	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Alkali marsh, Alkali playa, Alpine, Alpine dwarf scrub, Bog & fen, Brackish marsh, Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Desert dunes, Desert wash, Freshwater marsh, Great Basin grassland, Great Basin scrub, Interior dunes, Ione formation, Joshua tree woodland, Limestone, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Mojavean desert scrub, Montane dwarf scrub, North coast coniferous forest, Oldgrowth,

												Pavement plain, Redwood, Riparian forest, Riparian scrub, Riparian woodland, Salt marsh, Sonoran desert scrub, Sonoran thorn woodland, Ultramafic, Upper montane coniferous forest, Upper Sonoran scrub, Valley & foothill grassland
Thamnophis gigas	giant gartersnake	Reptiles	ARADB36150	366	4	Threatened	Threatened	G2	S2	null	IUCN_VU-Vulnerable	Marsh & swamp, Riparian scrub, Wetland
Valley Needlegrass Grassland	Valley Needlegrass Grassland	Herbaceous	CTT42110CA	45	1	None	None	G3	S3.1	null	null	Valley & foothill grassland

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
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In Reply Refer To:
Consultation Code: 08ESMF00-2021-SLI-2773
Event Code: 08ESMF00-2021-E-08075
Project Name: SSWD Groundwater Well Project

September 15, 2021

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2021-SLI-2773
Event Code: Some(08ESMF00-2021-E-08075)
Project Name: SSWD Groundwater Well Project
Project Type: WATER SUPPLY / DELIVERY
Project Description: Groundwater Well Project
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.70809305,-121.3312805899464,14z

Counties: Sacramento County, California

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Reptiles

NAME	STATUS
Giant Garter Snake *Thamnophis gigas*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4482

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii*	Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/2891

California Tiger Salamander *Ambystoma californiense*	Threatened

Population: U.S.A. (Central CA DPS)
There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/2076

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus*	Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/321

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

CNPS List of Special Status Plants, dated September 16, 2021

ScientificName	CommonName	Family	Lifeform	CESA	FESA	BloomingPeriod	Habitat
Chloropyron molle ssp. hispidum	hispid salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	None	None	Jun-Sep	Meadows and seeps, Playas, Valley and foothill grassland
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	None	None	Mar-Jun	Chaparral, Cismontane woodland, Valley and foothill grassland
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	None	None	Mar-May	Valley and foothill grassland, Vernal pools
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb	None	None	May-Oct(Nov)	Marshes and swamps
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	None	None	Mar-Jun	Chaparral, Cismontane woodland, Pinyon and juniper woodland, Valley and foothill grassland
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	CE	None	Apr-Aug	Marshes and swamps, Vernal pools
Juncus leiospermus var. ahartii	Ahart's dwarf rush	Juncaceae	annual herb	None	None	Mar-May	Valley and foothill grassland
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	Juncaceae	annual herb	None	None	Mar-Jun	Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools
Legenere limosa	legenere	Campanulaceae	annual herb	None	None	Apr-Jun	Vernal pools
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	CE	FT	May-Sep(Oct)	Vernal pools
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	CE	FE	Apr-Jul(Sep)	Vernal pools
Navarretia myersii ssp. myersii	pincushion navarretia	Polemoniaceae	annual herb	None	None	Apr-May	Vernal pools
Clarkia biloba ssp. brandegeeae	Brandegee's clarkia	Onagraceae	annual herb	None	None	May-Jul	Chaparral, Cismontane woodland, Lower montane coniferous forest
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	None	None	Mar-Jun	Valley and foothill grassland, Vernal pools
Brodiaea rosea ssp. vallicola	valley brodiaea	Themidaceae	perennial bulbiferous herb	None	None	Apr-May(Jun)	Valley and foothill grassland, Vernal pools