WELL 11 TREATMENT PROJECT

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

DECEMBER 2024

PREPARED FOR:

City of Lindsay
251 E. Honolulu Street
Lindsay, CA 93247

PREPARED BY:

PROVOST&PRITCHARD
CONSULTING GROUP

PUBLIC NOTICE

NOTICE OF INTENT TO ADOPT A DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION FOR THE WELL 11 TREATMENT PROJECT

NOTICE IS HEREBY GIVEN that the CITY OF LINDSAY (City) plans to adopt an Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed improvements and operations of the Well 11 Treatment Project. The document will be on the agenda of City's regularly scheduled City Council meeting on January 14, 2024, at City Hall, 251 E. Honolulu St. Lindsay, CA 93247.

The Well 11 Treatment Project proposes to construct the following components; site demolition, clearing and grubbing, construction of a perchlorate vessel foundation, placement of perchlorate treatment vessels with initial load of resin, installation of pretreatment cartridge filters, construction of nitrate system foundations, installation of a nitrate treatment system with tanks, resin, controls and softener, installation of on-site piping, placement of a brine holding tank, construction of polyethylene lined evaporation ponds, installation of associated electrical and controls, well pump upgrades, and perimeter fencing.

Pursuant to the California Environmental Quality Act (CEQA), an Initial Study has been prepared, describing the degree of possible environmental impacts of the proposed project. The City has assessed the potential environmental impacts of this proposed action and has determined that they will be less than significant. Copies of the IS/MND are on file and available for public review at City Hall. The public review period during which the City will receive comments on the proposed IS/MND will begin on December 9, 2024 and end on January 7, 2025. Comments should be in writing, if possible, and addressed to Neyba J. Amezcua, Principal Project Manager, at either namezcua@lindsay.ca.us, or 251 E. Honolulu Street Lindsay, CA 93247.

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Well 11 Treatment Project

Lead Agency: City of Lindsay | Contact Person: Neyba J. Amezcua

Mailing Address: 251 E. Honolulu Street | Phone: (559) 562-7102

City: Lindsay | Zip: 93247 | County: Tulare

Project Location: County: Tulare | City/Nearest Community: Lindsay

Cross Streets: See attached project description | Zip Code:

Longitude/Latitude (degrees, minutes and seconds): 36 ° 12 ′ 21 ″ N / 119 ° 06 ′ 12.65 ″ W Total Acres:

Assessor's Parcel No.: 199-140-038, 199-140-048, 199-140-049, and 199-200-028 | Section: 12 | Twp.: 20S | Range: 26E | Base: MDB&M

Within 2 Miles: State Hwy #: 65 | Waterways:

Airports: | Railways: SJRR | Schools: Jefferson, Lincoln, Reagan, Lindsay, Washington

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☒ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other:

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other:

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☒ Other: Well Treatment

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type
☒ Other: Well Treatment

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☒ Agricultural Land ☒ Air Quality ☒ Archeological/Historical ☒ Biological Resources ☐ Coastal Zone ☒ Drainage/Absorption ☐ Economic/Jobs
☐ Fiscal ☒ Flood Plain/Flooding ☒ Forest Land/Fire Hazard ☒ Geologic/Seismic ☒ Minerals ☒ Noise ☒ Population/Housing Balance ☒ Public Services/Facilities
☒ Recreation/Parks ☒ Schools/Universities ☒ Septic Systems ☒ Sewer Capacity ☒ Soil Erosion/Compaction/Grading ☒ Solid Waste ☒ Toxic/Hazardous ☒ Traffic/Circulation
☒ Vegetation ☒ Water Quality ☒ Water Supply/Groundwater ☒ Wetland/Riparian ☐ Growth Inducement ☒ Land Use ☐ Cumulative Effects ☒ Other: Tribal Cultural Resources

Present Land Use/Zoning/General Plan Designation:

The Project is designated Park and Recreation and Highway Commercial, and is zoned for Resource, Conservation, and Open Space, Commercial Highway.

Project Description: *(please use a separate page if necessary)*

See attached

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

___X___	Air Resources Board	___X___	Office of Historic Preservation
_____	Boating & Waterways, Department of	_____	Office of Public School Construction
_____	California Emergency Management Agency	_____	Parks & Recreation, Department of
_____	California Highway Patrol	_____	Pesticide Regulation, Department of
___X___	Caltrans District # ___6___	_____	Public Utilities Commission
_____	Caltrans Division of Aeronautics	___X___	Regional WQCB # ___5___
_____	Caltrans Planning	_____	Resources Agency
_____	Central Valley Flood Protection Board	_____	Resources Recycling and Recovery, Department of
_____	Coachella Valley Mtns. Conservancy	_____	S.F. Bay Conservation & Development Comm.
_____	Coastal Commission	_____	San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
_____	Colorado River Board	_____	San Joaquin River Conservancy
_____	Conservation, Department of	_____	Santa Monica Mtns. Conservancy
_____	Corrections, Department of	_____	State Lands Commission
_____	Delta Protection Commission	_____	SWRCB: Clean Water Grants
_____	Education, Department of	___X___	SWRCB: Water Quality
_____	Energy Commission	_____	SWRCB: Water Rights
___X___	Fish & Game Region # ___4___	_____	Tahoe Regional Planning Agency
___X___	Food & Agriculture, Department of	___X___	Toxic Substances Control, Department of
_____	Forestry and Fire Protection, Department of	___X___	Water Resources, Department of
_____	General Services, Department of		
_____	Health Services, Department of	_____	Other: _____
_____	Housing & Community Development	_____	Other: _____
___X___	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date December 9, 2024 Ending Date January 7, 2025

Lead Agency (Complete if applicable):

Consulting Firm: _____
Address: _____
City/State/Zip: _____
Contact: _____
Phone: _____

Applicant: _____
Address: _____
City/State/Zip: _____
Phone: _____

Signature of Lead Agency Representative: _____ **Date:** 12/9/2024

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

PROJECT DESCRIPTION

The Well 11 Treatment Project proposes to construct the following components:

- Site demolition, clearing and grubbing on approximately 3.4 acres;
- Construction of a perchlorate vessel foundation;
- Placement of perchlorate treatment vessels with initial load of resin;
- Installation of pretreatment cartridge filters;
- Construction of nitrate system foundations;
- Installation of a nitrate treatment system with tanks, resin, controls and softener;
- Installation of on-site piping;
- Placement of a brine holding tank;
- Construction of polyethylene double-lined evaporation ponds;
- Installation of associated electrical and controls;
- Well pump upgrades;
- Perimeter fencing; and
- Drive path for ingress and egress of the Project site

The proposed equipment is listed below

Construction Schedule

Construction of the Project is anticipated to be completed within six (6) months, which would include grading, site preparation, and construction of the water treatment infrastructure.

Generally, construction would occur between the hours of 7:00 am and 5:00 pm, Monday through Friday, excluding holidays. Post-construction activities would include system testing, commissioning, and site clean-up. Construction would require temporary staging and storage of materials and equipment. Staging areas would be located on-site.

Equipment

Construction equipment would likely include an excavator, backhoes, graders, skid steers, loaders, crane, and hauling trucks.

Operation and Maintenance

Operation and maintenance of the water treatment facility would be performed by the existing City maintenance staff or contracted staff. Operation and maintenance associated with the evaporation pond alternative would consist of monitoring the ponds for leakage, occasional removal of crystalized salt from the bottom of the ponds, transferring the salt into super sacks and repair of the liner, as necessary. Brine deliveries to the CleanHarbors Buttonwillow facility would occur approximately every other day utilizing one (1) truck.

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LIST OF APPENDICES

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ACRONYMS AND ABBREVIATIONS

AB ..... Assembly Bill
APE ..... Area of Potential Effect
BMP ..... Best Management Practices
CalEEMod ..... California Emissions Estimator Modeling (software)
CalFire ..... California Department of Forestry and Fire Protection
CARB ..... California Air Resources Board
CCAA ..... California Clean Air Act
CDFW ..... California Fish and Wildlife
CEQA ..... California Environmental Quality Act
CH_4 ..... Methane
CHRIS ..... California Historical Resources Information System
CNDDB ..... California Natural Diversity Database
CNPS ..... California Native Plant Society
CO ..... Carbone Monoxide
CO_2 ..... Carbon dioxide
County ..... Tulare County
CVP ..... Central Valley Project
DTSC ..... Department of Toxic Substances Control
EIR ..... Environmental Impact Report
FMMP ..... Farmland Mapping and Monitoring Program
FTA ..... Federal Transit Administration
GHG ..... Greenhouse Gas
IPaC ..... U.S. Fish and Wildlife Service's Information for Planning and Consultation system
IS ..... Initial Study
IS/MND ..... Initial Study/Mitigated Negative Declaration
MMRP ..... Mitigation Monitoring and Reporting Program
MND ..... Mitigated Negative Declaration
NAHC ..... Native American Heritage Commission
ND ..... Negative Declaration
NEPA ..... National Environmental Policy Act
NO_2 ..... Nitrogen Dioxide

NOx ..... Nitrogen Oxides
NRCS ..... Natural Resources Conservation Service
O_3 ..... Ozone
Pb ..... Lead
PM_{10} ..... particulate matter 10 microns in size
$PM_{2.5}$ ..... particulate matter 2.5 microns in size
ppb ..... parts per billion
ppm ..... parts per million
Project ..... Well 11 Treatment Project
ROG ..... Reactive Organic Gases
RWQCB ..... Regional Water Quality Control Board
SJVAB ..... San Joaquin Valley Air Basin
SJVAPCD ..... San Joaquin Valley Air Pollution Control District
SO_2 ..... Sulfur Dioxide
SSJVIC ..... Southern San Joaquin Valley Information Center
SR ..... State Route
SRA ..... State Responsibility Area
SWPPP ..... Storm Water Pollution Prevention Plan
SWRCB ..... State Water Resources Control Board
USEPA ..... United States Environmental Protection Agency
USFWS ..... United States Fish and Wildlife Service
USGS ..... United States Geological Survey
$\mu g/m^3$ ..... micrograms per cubic meter
VMT ..... Vehicle Miles Traveled

MITIGATED NEGATIVE DECLARATION

Mitigated Negative Declaration

As Lead Agency under the California Environmental Quality Act (CEQA), the City of Lindsay has reviewed the Project described below to determine whether it could have a significant effect on the environment because of its development. In accordance with CEQA Guidelines Section 15382: "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

Project Name

City of Lindsay Well 11 Treatment Project

Project Location

The Project is located in Lindsay, California, approximately 200 miles southeast of Sacramento and 53 miles north of Bakersfield (see Figure 2-1 and Figure 2-2). The Project site is located approximately on Assessor's Parcel Numbers 199-140-038, 199-140-048, 199-140-049, and 199-200-028. The centroid of the Project site is 36° 12' 21" N, 119° 06' 12.65" W.

Project Description

The Well 11 Treatment Project proposes to construct the following components:

- Site demolition, clearing and grubbing on approximately 3.4 acres;
- Construction of a perchlorate vessel foundation;
- Placement of perchlorate treatment vessels with initial load of resin;
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- Construction of nitrate system foundations;
- Installation of a nitrate treatment system with tanks, resin, controls and softener;
- Installation of on-site piping;
- Placement of a brine holding tank;
- Construction of polyethylene double-lined evaporation ponds;
- Installation of associated electrical and controls;
- Well pump upgrades;
- Perimeter fencing; and
- Drive path for ingress and egress of the Project site

The proposed equipment is shown in Figure 2-6.

The City of Lindsay finds that although the 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. More information on these environmental effects and others can be found further in this document. These revisions in the Project are discussed below:

- BIO-1 – Prior to filling the brine pond, deterrents shall be put in place to discourage birds from using the pond. This could include a combination of visual, auditory, and physical deterrents for

birds to minimize the potential for protected birds to utilize the brine pond. Examples include deterrents such as noise makers, ribbons, lasers, motion-triggered sprinklers, decoys, and others.

- BIO-2 – The Project's construction activities shall occur, if feasible, between September 16 and January 31 (outside of the nesting bird season) to avoid impacts to nesting birds.
- BIO-3 – If Project construction activities must occur within the nesting bird season (February 1 to August 31), a qualified biologist shall conduct a pre-construction survey for active nests within seven (7) calendar days prior to the start of construction. The survey shall include a one-time take avoidance survey for Swainson's hawk and other birds and raptors. The survey shall be completed within the Project site, and up to 100 feet outside of the Project site for nesting migratory birds, up to 500 feet outside of the project site for nesting raptors, and up to 0.5-mile outside of the project site for nesting Swainson's hawks. Raptor nests shall be considered "active" upon the nest-building stage. The survey shall not be completed between April 21 to June 10 due to the difficulty of identifying Swainson's hawk nests during this time of year. If no active nests are observed, no further mitigation is required.
- BIO-4 – If discovery of any active nests or breeding colonies occurs within 50 feet of a work area, a qualified biologist shall determine appropriate avoidance buffer distances based on applicable CDFW and/or USFWS guidelines, the biology of the species, conditions of the nest(s), and the level of project disturbance. If necessary, avoidance buffers shall be identified and shall be maintained until the biologist has determined that the nestlings have fledged.
- CUL-1 – In the event that previously unidentified archaeological remains are encountered during development or ground-moving activities in the APE, all work shall be halted until a qualified archaeologist can identify the discovery and assess its significance. In the event of accidental discovery of unidentified archaeological remains during development or ground-moving activities in the APE, all work shall be halted in the immediate vicinity until a qualified archaeologist can identify the discovery and assess its significance.
- CUL-2 – If human remains are uncovered during construction, the Tulare County Coroner shall be notified to investigate the remains and arrange proper treatment and disposition. If the remains are identified on the basis of archaeological context, age, cultural associations, or biological traits to be those of a Native American, California Health and Safety Code 7050.5 and PRC 5097.98 require that the coroner notify the NAHC within 24 hours of discovery. The NAHC will then identify the Most Likely Descendants who will be afforded an opportunity to make recommendations regarding the treatment and disposition of the remains.
- NOI-1 – The City shall ensure the construction contractor implement the following construction noise reducing measures:
    - The construction contractor shall ensure that all noise producing construction activities, including warming-up or servicing equipment and any preparation for construction, shall be limited to the hours between 7:00 a.m. and 6:00 p.m. The construction contractor shall locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise sensitive receptors nearest the project site during construction.
    - The construction contractor shall ensure that all equipment shall have sound control devices that are no less effective than those provided on the original equipment. Further, pavement breakers and jackhammers shall also be equipped with acoustically attenuating shields or shrouds recommended by the manufacturers thereof. In lieu of or in the absence of manufacturers' recommendations, the Director of Public Works shall have the authority to prescribe such means of accomplishing maximum noise attenuation

as deemed to be in the public interest, considering the available technology and economic feasibility.

- NOI-2 – The City shall ensure that equipment and trucks used for construction of the project utilize the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds).

CHAPTER 1 INTRODUCTION

Provost & Pritchard Consulting Group (Provost & Pritchard) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) on behalf of the City of Lindsay (Lead Agency; City) to address the environmental effects of the (Project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq. The City is the CEQA lead agency for this Project.

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

1.1 REGULATORY INFORMATION

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

a. The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed Project may have a significant effect on the environment, or
b. The IS identified potentially significant effects, but:
    1. Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed MND and IS is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and
    2. There is no substantial evidence, in light of the whole record before the agency, that the proposed Project as *revised* may have a significant effect on the environment.

1.2 DOCUMENT FORMAT

This IS/MND contains six chapters, described below.

Chapter 1	Introduction	An overview of the Project and the CEQA process
Chapter 2	Project Description	A detailed description of proposed Project components and objectives
Chapter 3	Determination	The Lead Agency's determination based upon this initial evaluation.
Chapter 4	Environmental Impact Analysis	The CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible mitigation measures. If the Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the Project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level.
Chapter 5	Mitigation, Monitoring, and Reporting Program	The proposed mitigation measures, implementation timelines, and the entity/agency responsible for ensuring implementation
Chapter 6	References	Details the documents and reports this document relies upon to provide its analysis.

Technical appendices, described below, are found at the end of this document.

Appendix A	CalEEMod Output Files
Appendix B	Biological Evaluation
Appendix C	Phase I Cultural Resources Assessment

CHAPTER 2 PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND

2.1.1 Project Title

Well 11 Treatment Project

2.1.2 Lead Agency Name and Address

City of Lindsay
251 E. Honolulu Street
Lindsay, CA 93247

2.1.3 Contact Person and Phone Number

Lead Agency Contact

Neyba J. Amezcua
City Services Director
(559) 562-7102

CEQA Consultant

Provost & Pritchard Consulting Group
Jarred Olsen, Environmental Project Manager
(559) 636-1166

2.1.4 Project Location

The Project is located in Lindsay, California, approximately 200 miles southeast of Sacramento and 53 miles north of Bakersfield (see Figure 2-1 and Figure 2-2). The Project site is located approximately on Assessor's Parcel Numbers 199-140-038, 199-140-048, 199-140-049, and 199-200-028. The centroid of the Project site is 36° 12' 21" N, 119° 06' 12.65" W.

2.1.5 General Plan Designation and Zoning

Project Area	General Plan Designation	Zoning District
ONSITE	Park and Recreation, Highway Commercial	RCO (Resource, Conservation, and Open Space, CH (Commercial Highway)
ADJACENT LANDS	Public and Semi-Public Facility, Low Density Residential	RCO (Resource, Conservation, and Open Space, CH (Commercial Highway, R-1-7 (Single Family Residential), RM-3 (Multi-Family Residential)

2.1.6 Description of Project

Project Background and Purpose

The City of Lindsay operates a community water system located in Tulare County, California that is regulated by the California State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW). The system's sources of supply are Central Valley Project (CVP) Friant Kern Canal water treated at a single surface water treatment plant and two active groundwater wells (Wells 14 and 15). A third well (Well 11) is currently inactive due to nitrate and perchlorate contamination at levels exceeding their respective maximum contaminant levels (MCLs). The distribution system is operated as a single pressure zone and includes one 4-million-gallon at-grade water storage reservoir located on a hill near the north end of the City.

The City's water supply deficit is most critical during periods of extreme drought. During normal years, the City's contracted CVP water allocation is 2,500 acre-feet, which is sufficient for the City to supply most of its water needs using its surface water treatment plant. However, during years of severe or extreme drought, including 2022, the City's Friant Kern Canal water allocation can be severely reduced or unfulfilled entirely. Unless a special Health & Safety CVP water allocation is granted to the City, it will be necessary to reactivate Well 11 to meet system demands, even if water conservation measures are implemented. Without mitigation of the nitrate and perchlorate contamination at Well 11, any use of the well would result in a violation of two primary drinking water standards, both of which have the potential to result in acute health effects.

In January 2023, a Water Feasibility Study (Feasibility Study) was prepared for the City of Lindsay (City).[1] That study included an analysis of current and projected future water supply capacity and demands. The Feasibility Study identified an immediate supply deficit with the deficit worsening as the City's population grows. The Feasibility Study recommended returning the City's Well 11 back to active service.

The preferred alternative for addressing the City's clean water supply redundancy is to return Well 11 to service by treating the well. Treatment for both perchlorate and nitrate would be accomplished utilizing ion exchange treatment processes. Perchlorate would first be removed utilizing a single-use perchlorate-selective ion exchange resin. Nitrate would then be removed using a regenerable ion exchange treatment system. The most economical means of disposing of the waste brine from the nitrate treatment process is to concentrate the brine in on-site double-lined evaporation ponds prior to having it trucked to CleanHarbors Buttonwillow waste management facility.

The Feasibility Study also recommended the addition of three new wells to be built over time up until 2030. This Initial Study does not include any new wells because analysis of such projects is not ripe at this time. Locations have not been selected and therefore impacts would be too speculative to analyze. Approval of this Project would not foreclose the City's opportunity to mitigate significant environmental effects of future well projects.

Project Description

The Well 11 Treatment Project proposes to construct the following components:

- Site demolition, clearing and grubbing on approximately 3.4 acres;
- Construction of a perchlorate vessel foundation;

[1] (Provost & Pritchard Consulting Group 2023)

- Placement of perchlorate treatment vessels with initial load of resin;
- Installation of pretreatment cartridge filters;
- Construction of nitrate system foundations;
- Installation of a nitrate treatment system with tanks, resin, controls and softener;
- Installation of on-site piping;
- Placement of a brine holding tank;
- Construction of polyethylene double-lined evaporation ponds;
- Installation of associated electrical and controls;
- Well pump upgrades;
- Perimeter fencing; and
- Drive path for ingress and egress of the Project site

The proposed equipment is shown in Figure 2-6.

Construction Schedule

Construction of the Project is anticipated to be completed within six (6) months, which would include grading, site preparation, and construction of the water treatment infrastructure.

Generally, construction would occur between the hours of 7:00 am and 5:00 pm, Monday through Friday, excluding holidays. Post-construction activities would include system testing, commissioning, and site clean-up. Construction would require temporary staging and storage of materials and equipment. Staging areas would be located on-site.

Equipment

Construction equipment would likely include an excavator, backhoes, graders, skid steers, loaders, crane, and hauling trucks.

Operation and Maintenance

Operation and maintenance of the water treatment facility would be performed by the existing City maintenance staff or contracted staff. Operation and maintenance associated with the evaporation pond alternative would consist of monitoring the ponds for leakage, occasional removal of crystalized salt from the bottom of the ponds, transferring the salt into super sacks and repair of the liner, as necessary. Brine deliveries to the CleanHarbors Buttonwillow facility would occur approximately every other day utilizing one (1) truck.

2.1.7 Other Public Agencies Whose Discretionary Approvals May Be Required

- State Water Quality Resources Control Board
- San Joaquin Valley Air Pollution Control Board

2.1.8 Consultation with California Native American Tribes

Public Resources Code Section 21080.3.1, *et seq. [codification of Assembly Bill (AB) 52, 2013-14*] requires that a lead agency, within 14 days of determining that it will undertake a project, must notify in writing any California Native American Tribe traditionally and culturally affiliated with the geographic area of the project if that Tribe has previously requested notification about projects in that geographic area. The notice

must briefly describe the project and inquire whether the Tribe wishes to initiate request formal consultation. Tribes have 30 days from receipt of notification to request formal consultation. The lead agency then has 30 days to initiate the consultation, which then continues until the parties come to an agreement regarding necessary mitigation or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith, but no agreement will be made.

The City of Lindsay has not received any written correspondence from a Tribe pursuant to Public Resources Code Section 21080.3.1 requesting notification of proposed project.

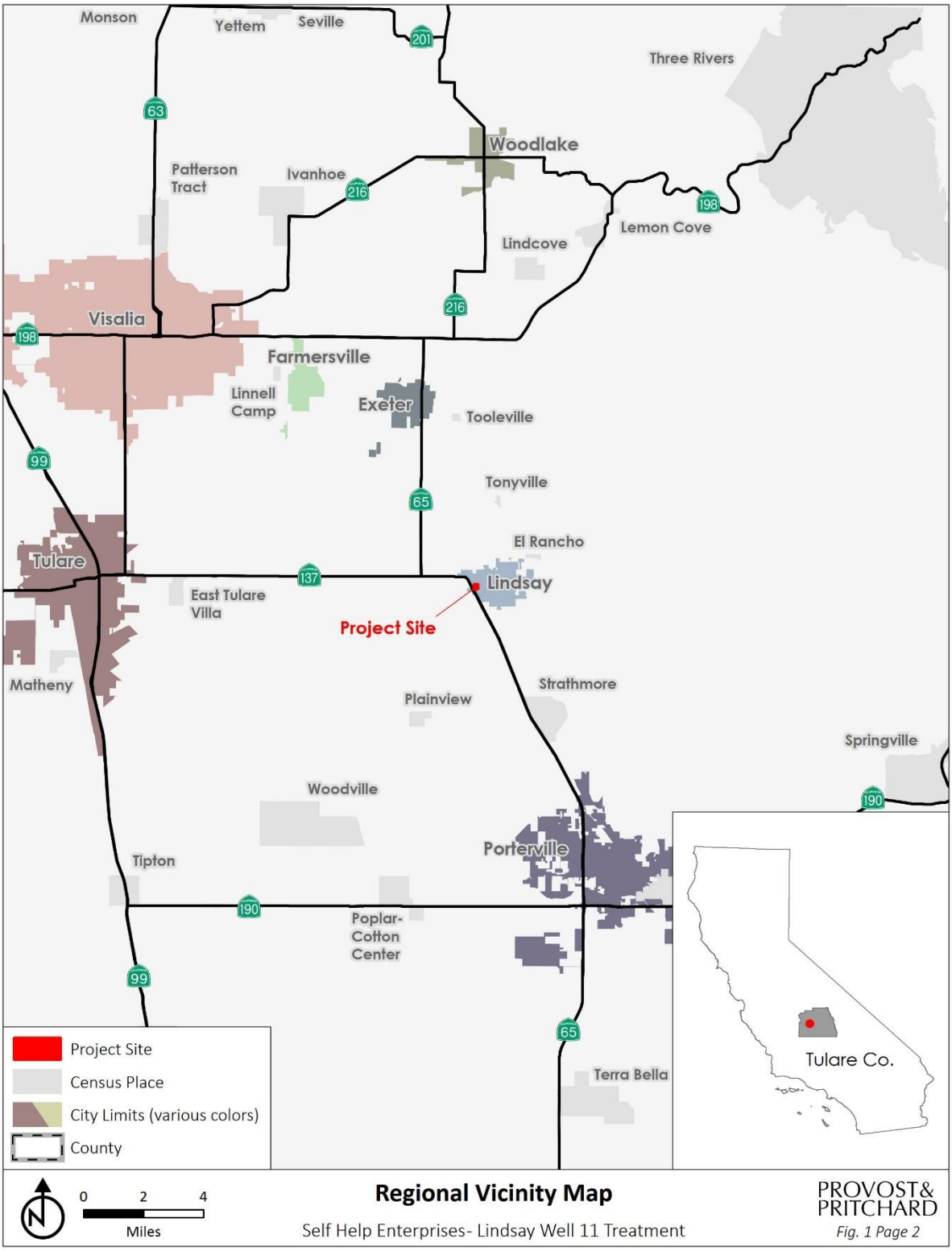


Figure 2-1: Regional Location Map

Figure 2-2: Aerial Map

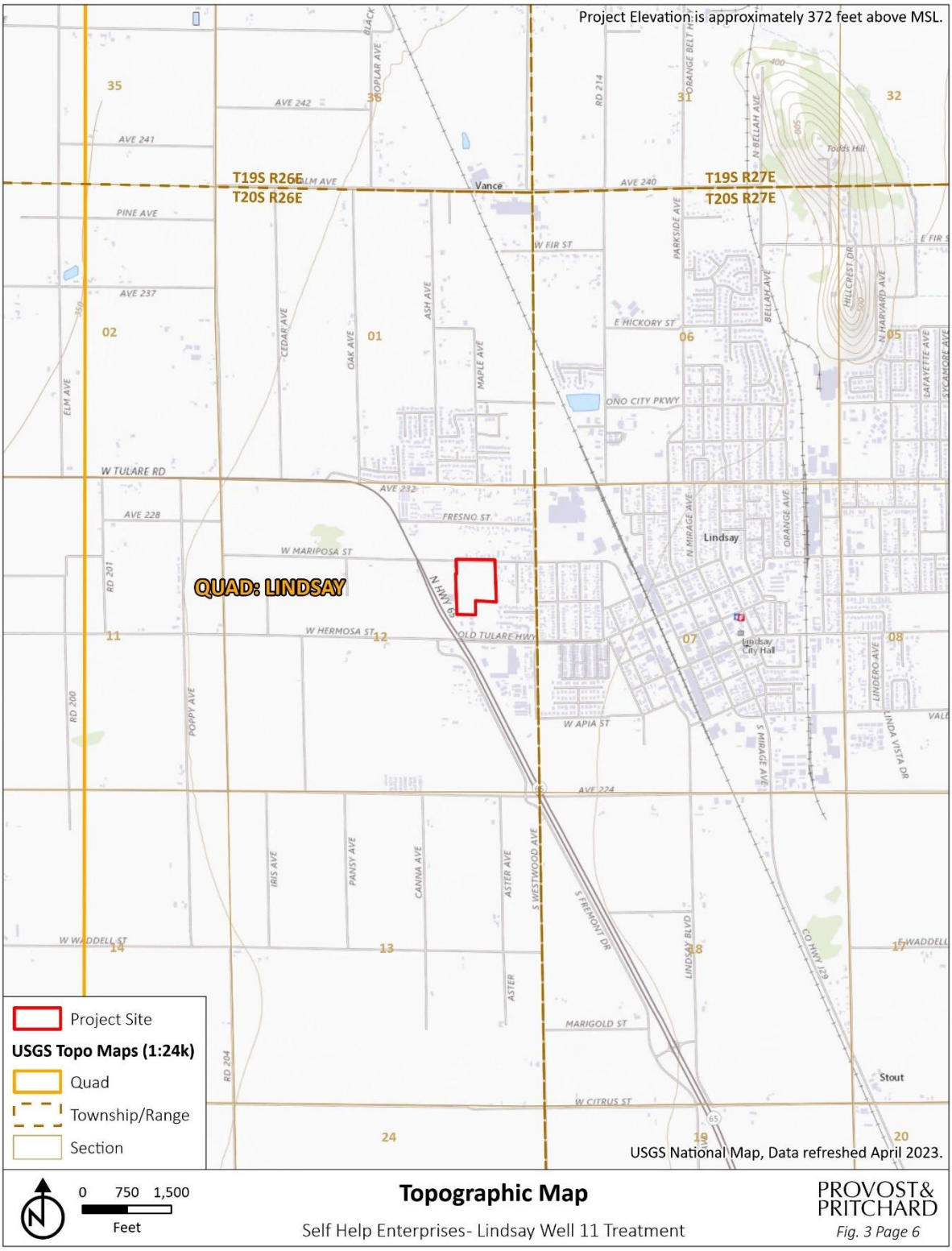


Figure 2-3: Topo Quad Map

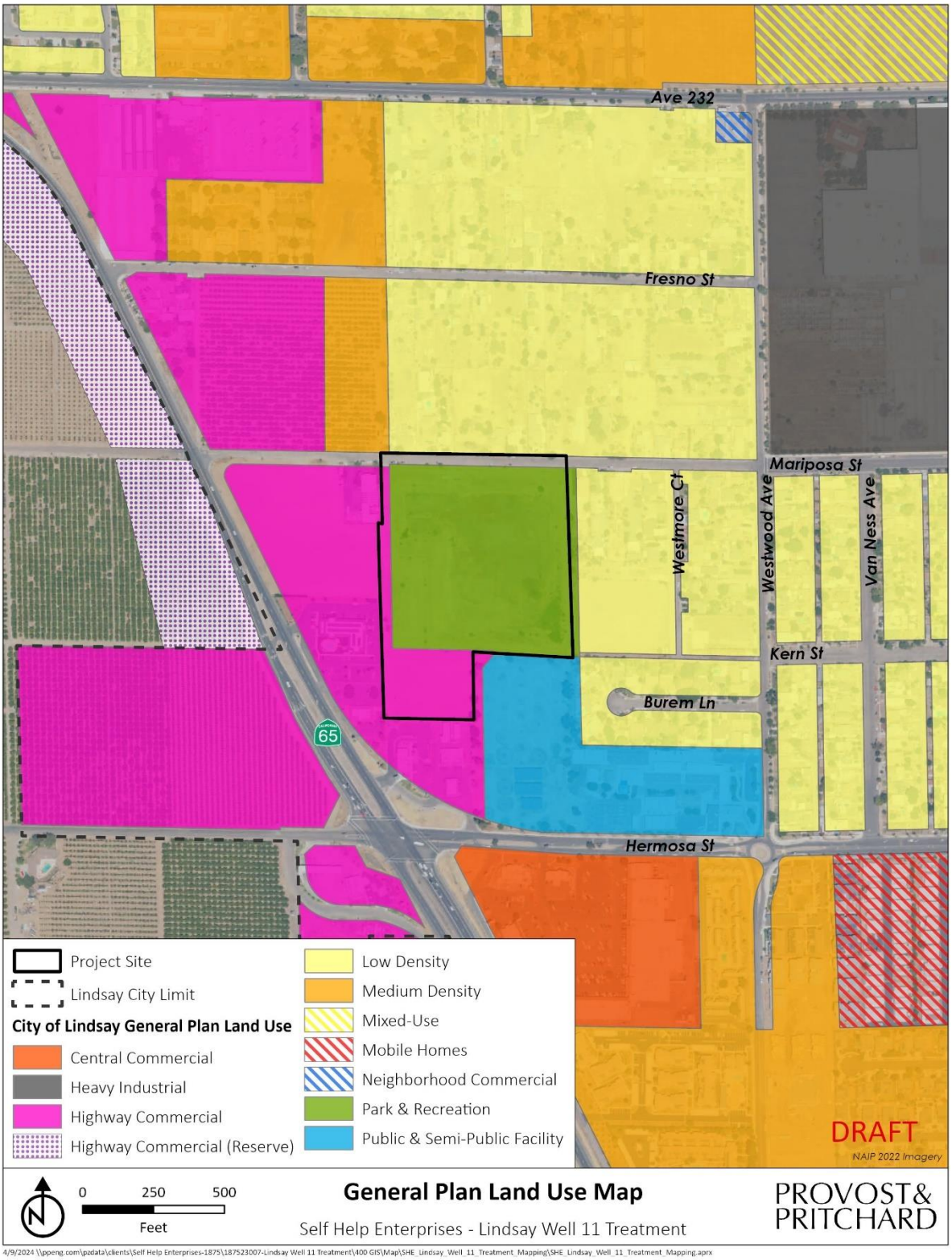


Figure 2-4: General Plan Land Use Designation Map

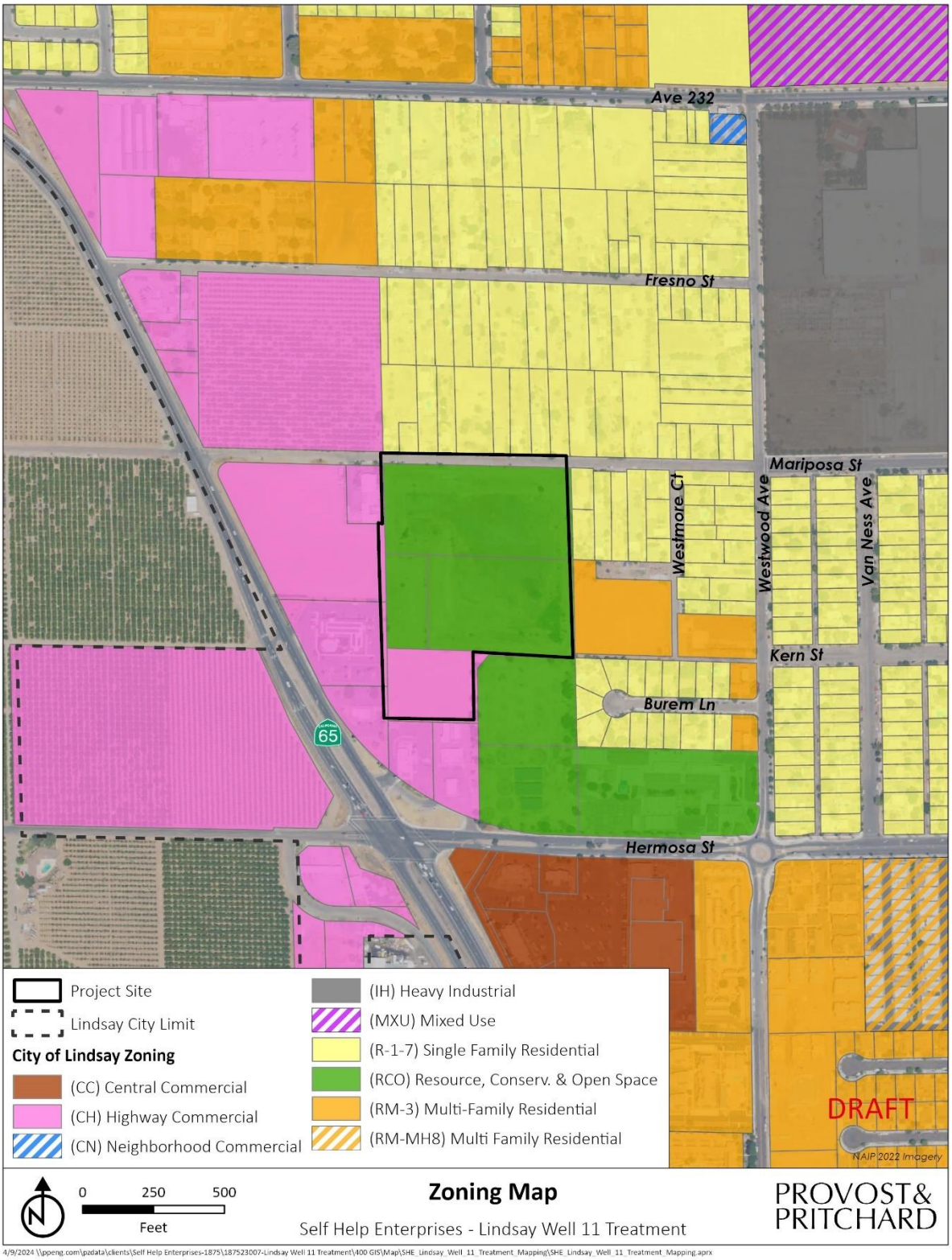


Figure 2-5: Zone District Map

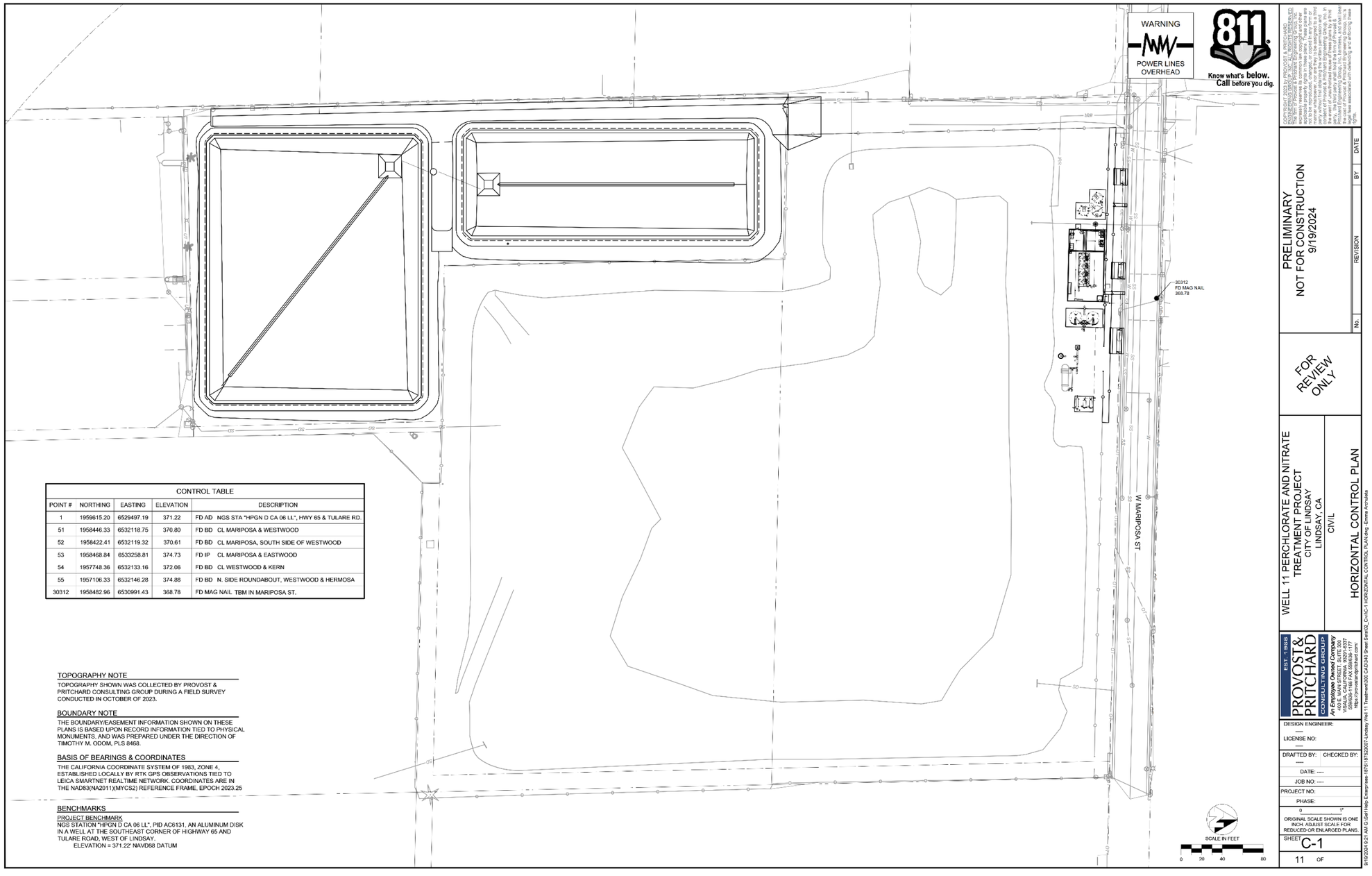


Figure 2-6: Site Plan

CHAPTER 3 DETERMINATION

3.1 POTENTIAL ENVIRONMENTAL IMPACTS

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

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

The analyses of environmental impacts in Chapter 4 Impact Analysis result in an impact statement, which shall have the following meanings.

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

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

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

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

3.2 DETERMINATION

On the basis of this initial evaluation (to be completed by the Lead Agency):

☐ 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.

_____ Click or tap to enter a date.
Signature Date

_____
Printed Name/Position

CHAPTER 4 ENVIRONMENTAL IMPACT ANALYSIS

4.1 AESTHETICS

Table 4-1: Aesthetics Impacts

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

4.1.1 Baseline Conditions

The Project is located in the city of Lindsay (City) in Tulare County. Tulare County is located within the southern San Joaquin Valley, which is known for its large expanse of farmland and agricultural operations. Most cities and communities within the San Joaquin Valley are fully surrounded by open space and farmland. The site itself is located at the western end of the City and contains a stormwater basin and the existing Well 11. The surrounding area consists of single-family residences, commercial development, and open space. The topography of the Project region is virtually flat with little to no relief, barring any potential scenic vistas.

The Project site is not located near California State Scenic Highway. According to the California State Scenic Highway System, the closest eligible and officially designated scenic highway is State Route (SR) 198, located approximately 8.2 miles north of the site.[2] There are no known historic buildings in the vicinity of the Project. To the east lies the Sierra Nevada mountains, which can be seen on a clear day from the Project site. The Sierra Nevada mountains tend to have scenic qualities; however, views are often obstructed due

[2] (California Department of Transportation 2023)

to smog caused by the inversion layer found in the San Joaquin Valley. According to the Tulare County General Plan, the Project site, nor the Project vicinity, contain any designated scenic vistas.[3]

4.1.2 Impact Analysis

a) Have substantial adverse effect on a scenic vista?

No Impact. As mentioned, there are no designated scenic vistas at or near the Project site. Furthermore, despite the existing stormwater basin, the Project region is generally flat and nowhere on the site provides characteristics of a potential scenic vista. Therefore, there would be no impact. No mitigation measures are required.

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

No Impact. The Project is not located within or visible from a designated state scenic highway. Furthermore, the Project would not remove any trees, rock outcroppings, or historic buildings. Therefore, there would be no impact. No mitigation measures are required.

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?

Less than Significant Impact. The city of Lindsay is not considered an urbanized area. Implementation of the Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. The Project proposes to construct perchlorate and nitrate treatment facilities and ancillary equipment to return Well 11 back into service. Proposed facilities would be located on the existing Well 11 site and therefore would not significantly deviate from the existing visual character of the site. Therefore, impacts would be less than significant. No mitigation measures are required.

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

Less than Significant Impact. The Project site is surrounded by residential, commercial, and open space uses. Minor lighting would be proposed for the operation of the Project. In accordance with the City's General Plan Light and Glare standards, proposed lighting would be hooded and directed downwards in order to reduce glare or light spillage on neighboring properties.[4] All proposed Project materials for the water treatment equipment would be constructed in a manner that would reduce any potential glaring effects. Therefore, the Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Impacts would be less than significant. No mitigation measures are required.

[3] (Tulare County 2030 General Plan Update 2010)
[4] (Grunwald & Associates 1989)

4.2 AGRICULTURE AND FORESTRY RESOURCES

Table 4-2: Agriculture and Forest Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

4.2.1 Baseline Conditions

The Project is located in California's Central San Joaquin Valley in Tulare County. Tulare County is known for its agricultural production as it was the number one agriculture producing county in the United States for 2020.[5] In 2022, Tulare County's agriculture production grossed 8.6 billion dollars, an increase in 6.5% from the previous year.[6] While the Project is located within the developed portion of the City, the lands to the west are primarily agricultural lands.

Farmland Mapping and Monitoring Program: The Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data used for analyzing impacts to California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The maps are updated with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance. The California Department of Conservation's 2020 FMMP is a non-regulatory program that produces "Important Farmland" maps and statistical data used for analyzing impacts on California's agricultural resources. The Important Farmland maps identify eight land use categories, five of

[5] (University of California Agriculture and Natural Resources 2022)
[6] (Tulare County Agricultural Commissioner/Sealer 2022)

which are agriculture related: prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, and grazing land — rated according to soil quality and irrigation status. Each is summarized of the following categories found in the surrounding area are described below:

- Prime Farmland: Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Farmland of Statewide Importance: Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Farmland of Local Importance: Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
- Urban and Built-Up Land: Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

As demonstrated in Figure 4-1, the FMMP for the Project sites are designated as Urban and Built-Up Land.[7]

4.2.2 Impact Analysis

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The Project site is designated as "Urban and Built-up Land," and would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (see Figure 4-1). Therefore, there would be no impact. No mitigation measures are required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project site is not zoned for agricultural uses, nor is it subject to a Williamson Act Land Use contract. The Project would have not convert any farmland to a non-agricultural use. Therefore. there would be no impact. No mitigation measures are required.

[7] (California Department of Conservation 2023)

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

No Impact. The Project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. The City has not designated any area of the Project site or surrounding lands as Forest Land, Timberland, or timberland zoned for Timberland Production.[8] Therefore, there would be no impact. No mitigation measures are required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project is not located in or near any forest land. Therefore, the Project would not result in the loss of forest land or conversion of forest land to non-forest use. There would be no impact. No mitigation measures are required.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The Project would not involve changes in the existing environment that would result in the conversion of farmland to a non-agricultural use or the conversion of forest land to a non-forest use. As mentioned, the Project site is not designated or used for farming activities. In addition, no land acquisition would be required for the completion of the Project. Therefore, there would be no impact. No mitigation measures are required.

[8] (City of Lindsay 2021)

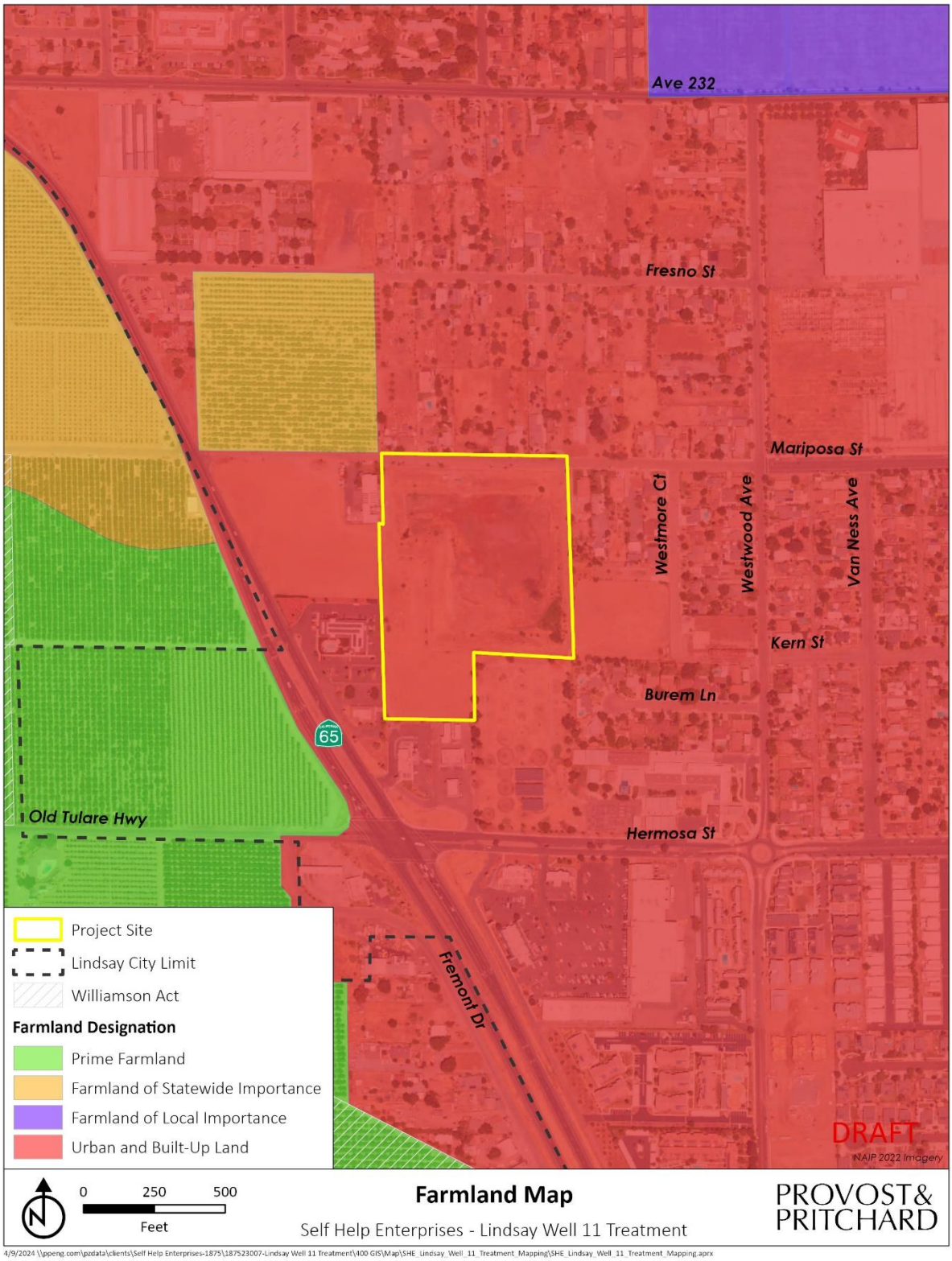


Figure 4-1: Farmland Designations Map

4.3 AIR QUALITY

Table 4-3: Air Quality Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality 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?	☐	☐	☒	☐

4.3.1 Baseline Conditions

The Project site is located within the boundaries of the San Joaquin Valley Air Pollution Control District (SJVAPCD) and the San Joaquin Valley Air Basin (SJVAB). The SJVAB is positioned within the San Joaquin Valley of California. The San Joaquin Valley is bounded by the Sierra Nevada Mountain Range to the east and the Coastal Mountain Range to the west. Wind within the SJVAB typically channels south-southwest during the summer months, while wind flows to the north-northwest during the winter months. Wind velocity for the region is considered low for an area of such size.[9] Due to a lack of strong wind and the natural confinement of the mountain ranges surrounding the SJVAB, the region experiences some of the worst air quality in the world.

Regulatory Attainment Designations

Under the California Clean Air Act (CCAA), the California Air Resources Board (CARB) is required to designate areas of the State as attainment, nonattainment, or unclassified with respect to applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An "unclassified" designation signifies that the data does not support either an attainment or nonattainment designation. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The United States Environmental Protection Agency (USEPA) designates areas for ozone, CO, and NO_2 as "does not meet the primary standards," "cannot be classified," or "better than national standards." For

[9] (San Joaquin Valley Air Pollution Control District 2012)

SO_2, areas are designated as "does not meet the primary standards," "does not meet the secondary standards," "cannot be classified," or "better than national standards." However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used. The USEPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, USEPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for PM_{10} based on the likelihood that they would violate national PM_{10} standards. All other areas are designated "unclassified."

According to the USEPA Tulare County was not in non-attainment for two pollutant concentrations, with PM-2.5 (2012) being classified as in serious non-attainment, and 8-hour Ozone (2015) classified as being in extreme non-attainment as of October 27th, 2023.[10]

[10] (United States Environmental Protection Agency 2023)

Table 4-4: Summary of Ambient Air Quality Standards and Attainment Designation

Pollutant	Averaging Time	California Standards*		National Standards*	
		Concentration*	Attainment Status	Primary	Attainment Status
Ozone (O_3)	1-hour	0.09 ppm	Nonattainment/ Severe	–	No Federal Standard
	8-hour	0.070 ppm	Nonattainment	0.075 ppm	Nonattainment (Extreme)**
Particulate Matter (PM_{10})	AAM	20 µg/m^3	Nonattainment	–	Attainment
	24-hour	50 µg/m^3		150 µg/m^3	
Fine Particulate Matter ($PM_{2.5}$)	AAM	12 µg/m^3	Nonattainment	12 µg/m^3	Nonattainment
	24-hour	No Standard		35 µg/m^3	
Carbon Monoxide (CO)	1-hour	20 ppm	Attainment/ Unclassified	35 ppm	Attainment/ Unclassified
	8-hour	9 ppm		9 ppm	
	8-hour (Lake Tahoe)	6 ppm		–	
Nitrogen Dioxide (NO_2)	AAM	0.030 ppm	Attainment	53 ppb	Attainment/ Unclassified
	1-hour	0.18 ppm		100 ppb	
Sulfur Dioxide (SO_2)	AAM	–	Attainment	--	Attainment/ Unclassified
	24-hour	0.04 ppm		--	
	3-hour	–		0.5 ppm	
	1-hour	0.25 ppm		75 ppb	
Lead (Pb)	30-day Average	1.5 µg/m^3	Attainment	–	No Designation/ Classification
	Calendar Quarter	–		--	
	Rolling 3-Month Average	–		0.15 µg/m^3	
Sulfates (SO_4)	24-hour	25 µg/m^3	Attainment	No Federal Standards	
Hydrogen Sulfide (H_2S)	1-hour	0.03 ppm (42 µg/m^3)	Unclassified		
Vinyl Chloride (C_2H_3Cl)	24-hour	0.01 ppm (26 µg/m^3)	Attainment		
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient: 0.23/km-visibility of 10 miles or more due to particles when the relative humidity is less than 70%.	Unclassified		

** For more information on standards visit: https://ww3.arb.ca.gov/research/aaqs/aaqs2.pdf*
*** No Federal 1-hour standard. Reclassified extreme nonattainment for the Federal 8-hour standard 10/27/23.*
****Secondary Standard*
***** µg/m3: micrograms per cubic meter*
Source: (California Air Resources Board 2017) ; (San Joaquin Valley Air Pollution Control District 2024)

Construction-Generated Emissions

Construction of the Project is assumed to be completed over approximately six (6) months. Emissions associated with the Project were calculated using California Emissions Estimator Model (CalEEMod) Air Quality Model, Version 2022.1.1.20. The emissions modeling includes emissions generated by off-road equipment, haul trucks, and worker commute trips. Emissions were quantified based on anticipated construction schedules and the default parameters contained in the model. Localized air quality impacts associated with the Project would be minor and were qualitatively assessed. Modeling assumptions and output files are included in Appendix A.

Thresholds of Significance

Air pollutant emissions have regional effects and localized effects. This analysis assesses the regional effects of the Project's criteria pollutant emissions in comparison to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the Project. Localized emissions from Project construction and operation are also assessed using concentration-based thresholds that determine if the Project would result in a localized exceedance of any ambient air quality standards or would make a cumulatively considerable contribution to an existing exceedance.

The primary pollutants of concern during Project construction and operation are ROG (reactive organic gases), NOX, PM_{10}, and $PM_{2.5}$. The SJVAPCD Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) adopted in 2015 contains thresholds for ROG and Nitrogen Oxides (NO_X); Sulfur Oxides (SO_X), CO, PM_{10}, and $PM_{2.5}$.

Ozone is a secondary pollutant that can be formed miles away from the source of emissions through reactions of ROG and NO_X emissions in the presence of sunlight. Therefore, ROG and NOx are termed ozone precursors. The SJVAB often exceeds the state and national ozone standards. Therefore, if the Project emits a substantial quantity of ozone precursors, the Project may contribute to an exceedance of the ozone standard. The SJVAB also exceeds air quality standards for PM_{10}, and $PM_{2.5}$; therefore, substantial Project emissions may contribute to an exceedance for these pollutants.

The SJVAPCD adopted significance thresholds for construction-related and operational ROG, NO_X, PM, CO, and SO_X, these thresholds are included in Table 4-5.

Table 4-5: Project-Level Air Quality CEQA Thresholds of Significance

Pollutant	Significance Threshold	
	Construction Emissions (tons/year)	Operational Emissions (tons/year)
CO	100	100
NO_x	10	10
ROG	10	10
SO_x	27	27
PM_{10}	15	15
$PM_{2.5}$	15	15

Source: SJVAPCD. 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed May 20, 2024.

4.3.2 Impact Analysis

Short-Term Construction-Generated Emissions

Estimated construction-generated emissions are summarized in Table 4-6. Due to the passive nature of the Project, long-term operational emissions would be negligible and would not exceed any set threshold governing air quality emission generation within the SJVAPCD.

Table 4-6: Unmitigated Short-Term Construction Generated Emissions of Criteria Air Pollutants

Source	Annual Emissions (Tons per Year)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Maximum Annual Project Construction Emissions	0.143	1.225	1.368	0.003	0.071	0.054
SJVAPCD Threshold	*10*	*10*	*100*	*27*	*15*	*15*
Threshold Exceeded?	No	No	No	No	No	No

Maximum Daily Emissions of Criteria Air Pollutants

Daily construction emissions generated by the Project are summarized in Table 4-7.

Table 4-7: Maximum Daily Emissions of Criteria Air Pollutants

Source	Daily Emissions Maximum (in pounds)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Construction – Summer	1.241	10.60	11.88	0.023	0.407	0.373
Construction – Winter	1.558	14.10	14.89	0.025	7.780	4.029
SJVAPCD Threshold	*100*	*100*	*100*	*100*	*100*	*100*
Threshold Exceeded?	No	No	No	No	No	No

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

Less than Significant Impact. The Project would not conflict with or obstruct implementation of any applicable air quality plan. The proposed Project would not exceed any threshold for air quality emissions that has been set by the SJVAPCD. Therefore, there would be a less than significant impact. No mitigation measures are required.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant Impact. The proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment. As shown in Table 4-6 and Table 4-7, the Project would not exceed an emissions threshold which has been set by the SJVAPCD for construction related emissions. Due to the nature of the proposed Project, long-term operational emissions would be negligible and would not exceed any set threshold governing air quality emission generation within the SJVAPCD. Therefore, impacts would be less than significant. No mitigation measures are required.

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

Less than Significant Impact. As discussed above, the proposed Project would not result in significant long-term operational emissions. Constructed related emissions, shown in Table 4-6 and Table 4-7, would

be temporary in nature and would cease upon Project construction. Short-term construction activities, however, could result in temporary increases in pollutant concentrations that could impact nearby sensitive receptors. Sensitive Receptors are groups that would be more affected by air, noise, and light pollution, pesticides, and other toxic chemicals than others. This includes infants, children under 16, elderly over 65, athletes, and people with cardiovascular and respiratory diseases. High concentrations of these groups would include daycares, residential areas, hospitals, elder care facilities, schools, and parks.

While the proposed Project would result in construction in proximity to potential sensitive receptors, in the form of surrounding single family residences (as close as 80 feet) and a nearby school (0.17 miles), the construction activities lack the potential to cause a significant health risk to sensitive receptors in the area due to the Project's size and nature. Health risks would result in a cancer risk of 7.12 in a million, which is below the threshold of 20 in a million. The Chronic Hazard Index of the nearest receptor is 0.014872, where the threshold is 1. Diesel particulate matter is not known to cause acute health impacts. The majority of emissions generated by the Project would be as a result of constructing a concrete base for the treatment equipment to be located on, in addition to the evaporation pond. Operational emissions would consist of delivery vehicles, whose emissions would be spread out amongst the City and the region. Therefore, impacts would be less than significant. No mitigation measures are required.

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

Less than Significant Impact. During construction activities, construction equipment exhaust and other construction applications would temporarily emit odors. Construction would be completed within the City and would have an effect on some residences that are located near the construction area of the Project. To reduce impacts, the Project would implement BMPs such as refueling construction equipment in one location furthest from sensitive receptors, preventing wash water from entering storm drains (implemented by the SWPPP), and general site planning. Furthermore, construction of the Project would be temporary, and odors would not remain after Project completion. Therefore, impacts would be less than significant. No mitigation measures are required.

4.4 BIOLOGICAL RESOURCES

Table 4-8: Biological Resources Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

4.4.1 Baseline Conditions

General

The Project is located in the city of Lindsay within the eastern San Joaquin Valley. The Project site includes dirt access roads, a stormwater basin, and sparsely vegetated and cultivated land, and is surrounded by developed and vacant residential and commercial lots, a school, and paved roads. The topography of the site is relatively flat with an elevation of approximately 372 feet above mean sea level.

Like most of California, the Project site experiences a Mediterranean climate. Warm, dry summers are followed by cool, moist winters. In the summer, average high temperatures range between 84- and 97-

degrees Fahrenheit (°F), but often exceed 100 °F, and the humidity is generally low. Winter temperatures are often below 65 °F during the day and rarely exceed 70 °F. On average, the city of Lindsay receives approximately 12 inches of precipitation in the form of rain yearly, most of which occurs between October and April, and the Project site would be expected to receive similar amounts of precipitation.[11]

Soils

Two soil mapping units representing two soil types were identified within the Project site and are listed in Table 4-9 (see Appendix D of Appendix B for the Web Soil Survey Report). The soils are displayed with their core properties according to the Major Land Resource Area of California. Both soils are primarily used for irrigated cropland, fruit crops, dryland grain, and pasture.

Table 4-9. List of Soils Located on the Project Site and Their Basic Properties

Soil	Soil Map Unit	Percent of Project Site	Hydric Soil Category	Drainage	Permeability	Runoff
Exeter	Loam, 0 to 2 percent slopes	78.5%	Predominantly Nonhydric	Well drained	Moderately slow	Negligible to medium
Greenfield	Sandy loam, 0 to 2 percent slopes	21.5%	Nonhydric	Well drained	Moderately rapid	Slow to medium

Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions such that under sufficiently wet conditions, hydrophytic vegetation can be supported. Exeter loam, 0-2 percent slopes, has a predominantly nonhydric rating, which means that no major component listed for this map unit is rated as hydric, and at least one contrasting minor component is rated hydric. Greenfield sandy loam, 0 to 2 percent slopes has a nonhydric rating, which means no major or minor components for this map unit are rated hydric.

Biotic Habitats

Two biotic habitats, stormwater basin and ruderal, were observed within the Project site (see Figure 4-2). These habitats and their constituent plant and animal species are described in more detail in the following sections.

[11] (Weatherspark 2023)

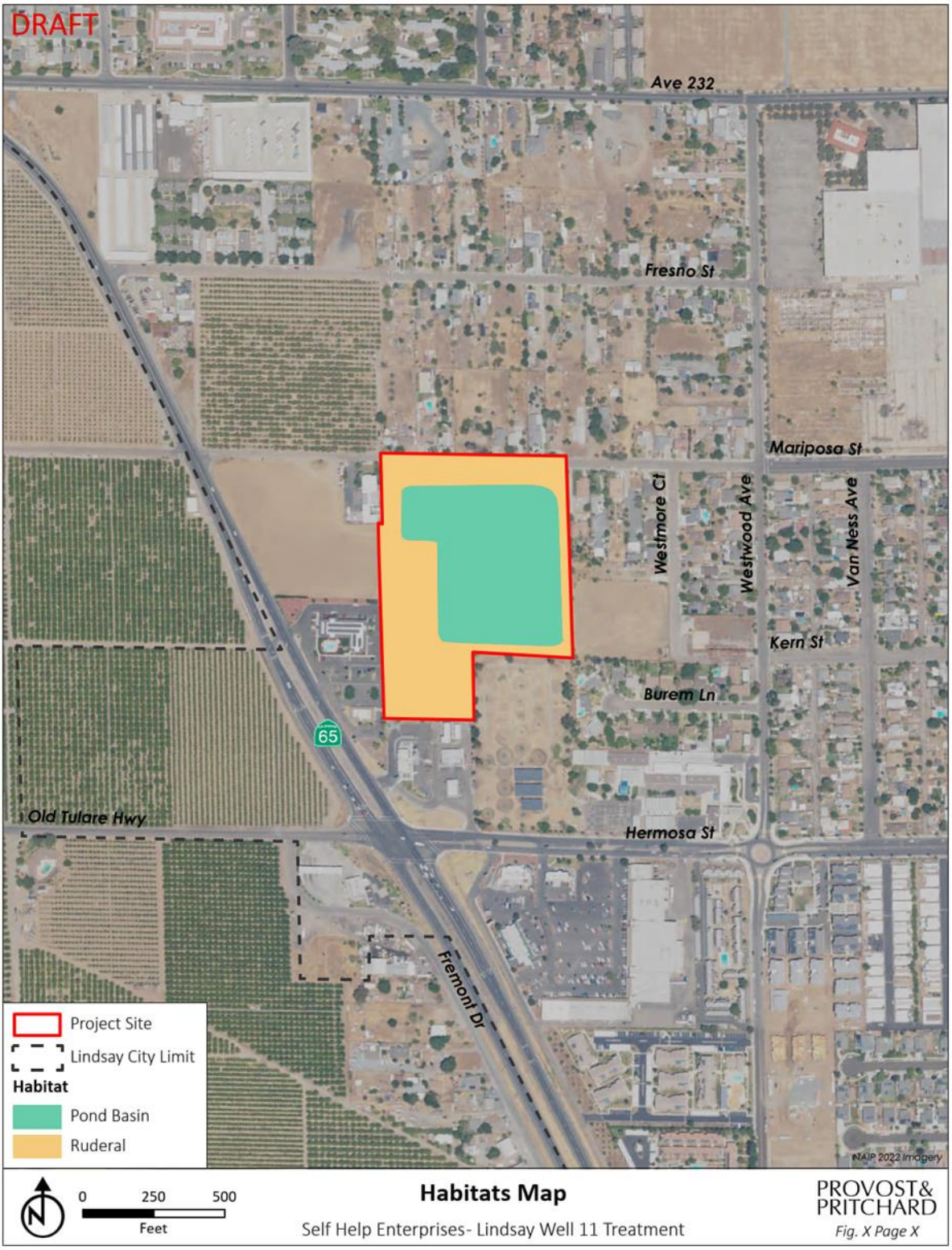


Figure 4-2: Habitats Map

Stormwater Basin

The Project site was mostly dominated by stormwater basin habitat in the form of an existing stormwater basin; however, the Project components would not be constructed within this habitat. The stormwater basin was nearly empty of water during the time of the field survey. There was stagnant standing water towards the southeast end of the basin near a culvert that was up to 36 inches deep. The margins of the stormwater basin habitat were dominated by vegetation such as bur clover (*Medicago polymorpha*), castor bean (*Ricinus communis*), curly dock (*Rumex crispus*), honey locust (*Gleditsia triacanthos*), Johnson grass (*Sorghum halepene*), mouse-ear cress (*Arabidopsis thaliana*), and mule fat (*Baccharis salicifolia*).

No aquatic or semi-aquatic bird species were observed although there was visual evidence of bird tracks and feces embedded on the soil surface. Numerous aquatic or semi-aquatic bird species would be expected to use the stormwater basin habitat, especially when it is more inundated. Species that may use this habitat include killdeer (*Charadrius vociferus*), mallard (*Anas platyrhynchos*), Canada goose (*Branta canadensis*), American coot (*Fulica americana*), and other common species in the area.

Unidentified fish carcasses were observed towards the lowest point of the pond and adjacent to the stagnant water. While no evidence of live amphibians, fish, or reptiles was observed in the stormwater basin habitat during the field survey, common species would be expected to use this habitat including western toad (*Anaxyrus boreas*), Pacific tree frog (*Pseudacris regilla*), western fence lizard (*Sceloporus occidentalis*), and fish potentially released for fishing. Mammals that are expected to use this habitat for drinking water or while the habitat is dry include raccoon (*Procyon lotor*), California ground squirrel (*Otospermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), feral cats (*Felis catus*), and domestic dogs (*Canis lupus familiaris*).

Ruderal

The remainder of the Project site, which is where the Project components are proposed, consisted of ruderal habitat influenced by anthropogenic activities, which included dirt access roads and disced soils. These areas of the Project site contained minimal to moderate vegetation due to vehicle and heavy equipment disturbance. Where vegetation was present, it consisted of invasive grasses, Bermuda grass (*Cynodont dactylon*), cheeseweed mallow (*Malva pariflora*), common fig (*Fiscus carica*), sowthistle (*Sonchus oleraceus*), bromegrass (*Bromus diandrus*), dove weed (*Croton setigerus*), flatspine bur ragweed (*Ambrosia acanthicarpa*), red stemmed filaree (*Erodium cicutarium*), Mexican fan palm (*Washingtonia robusta*), peach (*Prunus persica*), Callery pear (*Pyrus calleryana*), prickly lettuce (*Lactuca serriola*), puncture vine (*Tribulus terrestris*), sacred datura (*Datura wrightii*), silverleaf nightshade (*Solanum elaeagnifolium*), elm (*Ulmus sp.*), sugar bush (*Rhus ovata*), telegraphweed (*Heterotheca grandiflora*), and white horehound (*Marrubium vulgare*).

Numerous bird species were observed within the ruderal habitat of the Project site, and included species such as American crow (*Corvus brachyrhynchos*), black phoebe (*Sayornis nigricans*), European starling (*Sturnus vulgaris*), house finch (*Haemorhous meixcanus*), house sparrow (*Passer domestius*), killdeer, lesser goldfinch (*Spinus Psaltria*), mourning dove (*Zenaida macroura*), ruby-crowned kinglet (*Corthylio calendula*), song sparrow (*Melospiza melodia*), and white crowned sparrow (*Zonotrichia leucophrys*).

Other signs or species observed in this habitat include California ground squirrels and their burrows, gopher mounds, and a deceased frog with an advanced state of decomposition. Reptiles that would be expected to occur within the ruderal habitat of the Project site include Pacific gopher snake (*Pituophis catenifer catenifer*), western fence lizard, common side-blotched lizard (*Uta stansburiana*), and other reptiles common to the area. Other mammals that have the potential to occur in this habitat include deer mouse

(*Peromyscus maniculatus*), coyote (*Canis latrans*), raccoon, striped skunk (*Mephitis mephitis*), and Virginia opossum (*Didelphis virginiana*).

Natural Communities of Special Concern and Riparian Habitat

Natural communities of special concern are those that are of limited distribution, distinguished by significant biological diversity, or home to special status species. The California Department of Fish & Wildlife (CDFW) has classified and mapped all-natural communities in California. Just as the special status plant and animal species (see Table 4-10 and Table 4-11), these natural communities of special concern can be found within the California Natural Diversity Database (CNDDB). There are no recorded observations of natural communities of special concern mapped within the Project site. Additionally, no natural communities of special concern were observed during the field survey.

Riparian habitat is composed of plant communities that occur along the banks, and sometimes over the banks, of most waterways and is an important habitat for numerous wildlife species. CDFW has jurisdiction over most riparian habitat in California. No natural waterways or riparian habitat were observed within or adjacent to the Project site.

Designated Critical Habitat

The United States Fish and Wildlife Service's (USFWS) often designates areas of "critical habitat" when it lists species as threatened or endangered. Critical habitat is a specific geographic area that contains features essential for the conservation of a threatened or endangered species, which may require special management and protection. According to the USFWS' Information for Planning and Consultation (iPac) system, designated critical habitat is absent from the Project site and vicinity.

Wildlife Movement Corridors and Native Wildlife Nursery Sites

Wildlife movement corridors are routes that animals regularly and predictably follow during seasonal migration, dispersal from native ranges, daily travel within home ranges, and inter-population movements. Movement corridors in California are typically associated with valleys, ridgelines, and rivers and creeks supporting riparian vegetation. The Project site does not have any features or habitats that are likely to be utilized as a wildlife movement corridor.

Native wildlife nursery sites are areas where a species or group of similar species raise their young in a concentrated place, such as maternity bat roosts. While native wildlife may utilize the existing stormwater basin habitat as a wildlife nursery site, Project components would not be constructed within the stormwater basin habitat.

Special Status Plant and Animal

A query of the CNDDB for occurrences of special status plant and animal species was conducted for the *Lindsay* 7.5-minute U.S. Geological Survey (USGS) quadrangle that contains the Project site, and for the 8 surrounding USGS quadrangles: *Cairns Corner, Chickencoop Canyon, Exeter, Frazier Valley, Porterville, Rocky Hill, Success Dam and Woodville.* A query of the IPaC was also completed for the Project site. These species, and their potential to occur within the Project site, are listed in Table 4-10 and Table 4-11 below. Other special status species that did not show up in the CNDDB query, but have the potential to occur in the vicinity, are also included in Table 4-11. Species lists obtained from CNDDB and IPaC are available in Appendix B and Appendix C, respectively of Appendix B. All relevant sources of information, as discussed in the Study Methodology section of Appendix B, as well as field observations, were used to determine if any special status species have the potential to occur within the Project site.

Table 4-10: List of Special Status Plants with Potential to Occur on the Site and/or in the Vicinity.

Species	Status*	Habitat	Occurrence within the Site
Alkali -sink goldfields (*Lasthenia chrysantha*)	California Native Plant Society (CNPS) 1B	Found in vernal pool and wet saline flat habitats in the San Joaquin Valley region at elevations below 700 feet. Blooms February – April.	**Absent.** Suitable habitats required by this species were absent within the project site and surrounding areas.
Calico monkeyflower (*Diplacus pictus*)	CNPS 1B	Found in the Sierra Nevada foothills and the Tehachapi mountains in bare, sunny, shrubby areas, around granite outcrops within foothill woodland communities. Found at elevations between 450 and 4,100 feet. Blooms March – May.	**Absent.** Suitable habitats required by this species were absent within the project site and surrounding areas and the project site is outside of the known range for this species.
California alkali grass (*Puccinellia simplex*)	CNPS 1B	Found in the San Joaquin Valley and other parts of California in saline flats and mineral springs within valley grassland and wetland-riparian communities. Found at elevations below 3,000 feet. Blooms March – May.	**Absent.** Suitable habitats required by this species were absent within the project site and surrounding areas.
Chaparral ragwort (*Senecio aphanactis*)	CNPS 2B	Found in chaparral, cismontane woodland, and coastal scrub, typically within drying alkaline flats at elevations between 50 and 2,800 feet. Blooms February – May.	**Absent.** Suitable habitats required by this species were absent within the project site and surrounding areas.
Earlimart orache (*Atriplex cordulata* var. *erecticaulis*)	CNPS 1B	Found in the San Joaquin Valley in saline and alkaline soils, typically within valley grasslands at elevations below 400 feet. Blooms August – September.	**Absent.** Suitable habitat and required soils were absent from the project site.
Kaweah brodiaea (*Brodiaea insignis*)	CE, CNPS 1B	Found in the Sierra Nevada foothills in foothill woodland and valley grassland communities at elevations between 650 and 1,700 feet. Blooms May – June.	**Absent.** Suitable habitats required by this species were absent within the project site and surrounding areas.
Keck's checkerbloom (*Sidalcea keckii*)	FE, CNPS 1B	Occurs in cismontane woodland, valley, and foothill grassland communities, typically on grassy slopes in clay soils at elevations between 250 and 1,700 feet. Blooms April – May.	**Absent.** Suitable habitats required by this species were absent within the project site and surrounding areas.
Lesser saltscale (*Atriplex minuscula*)	CNPS 1B	Found in the San Joaquin Valley in sandy, alkaline soils in alkali scrub, valley and foothill grassland, and alkali sink communities at elevations below 750 feet. Blooms April – October.	**Absent.** Required habitat and alkaline soils were absent within the project site and surrounding areas.

Species	Status*	Habitat	Occurrence within the Site
Lassics lupine (*Lupinus constancei*)	FE, CE, CNPS 1B	Occurs in lower montane coniferous forests. Often on serpentine barrens at elevations between 5,530 and 5,700 feet. Blooms in July.	**Absent.** Suitable habitats required by this species were absent within the project site and the site is outside of the elevational range for this species.
Madera leptosiphon (*Leptosiphon serrulatus*)	CNPS 1B	Found within openings of foothill woodland, often yellow-pine forest, and chaparral at elevations between 1,000 and 4,300 feet. Blooms April – May.	**Absent.** Suitable habitat was absent within the project site and surrounding areas.
Recurved larkspur (*Delphinium recurvatum*)	CNPS 1B	Occurs in chenopod scrub, cismontane woodland, and grassland habitats on poorly drained, fine, alkaline soils; often in valley saltbush or valley chenopod scrub communities at elevations between 100 and 2,600 feet. Blooms March – June.	**Absent.** Suitable habitat and alkaline soils were absent within the project site and surrounding areas.
San Joaquin adobe sunburst (*Pseudobahia peirsonii*)	FT, CE, CNPS 1B	Found in the San Joaquin Valley and the Sierra Nevada foothills in bare, dark clay soils in valley and foothill grassland and cismontane woodland communities at elevations between 300 and 3,000 feet. Blooms March – May.	**Absent.** Suitable habitat and required dark clay soils were absent withing the project site and surrounding areas.
San Joaquin woollythreads (*Monolopia congdonii*)	FE, CNPS 1B	Occurs in the San Joaquin Valley in sandy soils on alkaline or loamy plains in valley and foothill grassland and alkali scrub communities at elevations between 150 and 2,800 feet. Blooms February – May.	**Absent.** Suitable habitat was absent within the project site and surrounding areas.
Shining navarretia (*Navarretia nigelliformis ssp. Radians*)	CNPS 1B	Found in cismontane woodland and valley and foothill grassland communities, sometimes in vernal pools. Occurs at elevations between 200 and 3,200 feet. Blooms May – July.	**Absent.** Suitable habitat was absent within the project site and surrounding areas.
Spiny-sepaled button-celery (*Eryngium spinosepalum*)	CNPS 1B	Found in the Sierra Nevada foothills and the San Joaquin Valley. Occurs in vernal pools, swales, and roadside ditches. Often associated with clay soils in vernal pools within grassland communities. Occurs at elevations between 50 and 4,200 feet. Blooms April – July.	**Absent.** Suitable habitat including vernal pools were absent within the project site and surrounding areas.

Species	Status*	Habitat	Occurrence within the Site
Springville clarkia (*Clarkia springvillensis*)	FT, CE, CNPS 1B	Endemic to the woodlands and grasslands of the southern portion of the Sierra Nevada range, occurring primarily in the Tule River watershed. Found at elevations between 650 and 7,400 feet. Blooms in May.	**Absent.** Suitable habitat was absent within the project site and surrounding areas.
Striped adobe-lily (*Fritillaria striata*)	CT, CNPS 1B	Found in the Sierra Nevada foothills in adobe soil within valley grassland and foothill woodland communities at elevations below 3,300 feet. Blooms February – April.	**Absent.** Suitable habitat and required soils were absent from the project site and surrounding areas.
Subtle orache (*Atriplex subtilis*)	CNPS 1B	Found in the San Joaquin Valley in saline depressions in alkaline soils within valley and foothill grassland communities at elevations below 300 feet. Blooms June – October.	**Absent.** Suitable habitat and required soils were absent within the project site and surrounding areas.

Table 4-11: List of Special Status Animals with Potential to Occur on the Site and/or in the Vicinity

Species	Status*	Habitat	Occurrence within the Site
American badger (*Taxidea taxus*)	CSSC	Occurs most abundantly in drier open stages of shrub, forest, and herbaceous habitats with friable soils to burrow, but can be found within numerous habitats throughout California, including the margins of agricultural lands. Needs a sufficient prey base of burrowing rodents.	**Unlikely.** Suitable habitat was absent from the project site. The site is frequently disturbed which would deter this species. The nearest recorded observation of this species within the vicinity was approximately 9.9 miles northwest of the project site in 1994.
California condor (*Gymnogyps californianus*)	FE, CE, CFP	Typically nests in cavities in canyon or cliff faces but has also been recorded nesting in giant sequoias in Tulare County. Requires vast expanse of open savannah, grassland, and/or foothill chaparral in mountain ranges of moderate altitude. Forages for carrion up to 100 miles from their roost/nest sites.	**Unlikely.** Nesting habitat was absent from the project site. The project site may provide some foraging opportunities, but the adjacent residences and roads and human activity would deter this species from foraging on the site.
California tiger salamander – central California DPS (*Ambystoma californiense*)	FT, CT	Requires vernal pools or seasonal ponds for breeding and small mammal burrows for aestivation. Generally found in grassland and oak savannah plant communities in central California from sea level to 1,500 feet in elevation. Can migrate up to 1.3 miles to breed.	**Absent.** Suitable habitat was absent from the project site and there were no nearby occurrences in the surrounding areas. The stormwater basin contained evidence of fish that would deter this species from using it for breeding and the ruderal habitat is frequently disturbed.
Crotch's bumble bee (*Bombus crotchii*)	CCE	Occurs throughout coastal California, as well as east to the Sierra Nevada-Cascade crest, and	**Unlikely.** Suitable foraging habitat was absent from the project site due to frequent discing. This species could fly

Species	Status*	Habitat	Occurrence within the Site
		south into Mexico. Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	through the site but would be expected to fly away during construction. The nearest CNDDB recorded observation was approximately 2 miles northeast of the project site in 1956.
Foothill yellow-legged frog – south Sierra DPS (*Rana boylii pop. 5*)	FC, CE	Frequents rocky streams and rivers with rocky substrate and open, sunny banks in forests, chaparral, and woodlands. Occasionally found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools.	**Absent.** Suitable habitat was absent from the project site.
Monarch butterfly (*Danaus plexippus*)	FC	Roosts in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Larval host plants consist of milkweeds (*Asclepias* sp.). Winter roost sites extend along the Pacific coast from northern Mendocino to Baja California, Mexico.	**Unlikely.** Suitable foraging and roosting habitat was absent from the project site due to frequent discing. This species could fly through the site but would be expected to fly away during construction. There are no recorded observations of this species on CNDDB within the regional vicinity of the project.
Northern California legless lizard (*Anniella pulchra*)	CSSC	Found primarily underground, burrowing in loose, sandy soil. Forages in loose soil and leaf litter during the day.	**Unlikely.** Suitable habitat and required soils were absent from the project site. The nearest CNDDB recorded observation was approximately five miles north of the project site in 2021.
Northwestern pond turtle (*Actinemys marmorata*)	FPT, CSSC	An aquatic turtle of ponds, marshes, slow-moving rivers, streams, and irrigation ditches with riparian vegetation. Requires adequate basking sites and sandy banks or grassy open fields to deposit eggs.	**Unlikely**. The stormwater basin habitat lacks suitable vegetation and cover for this species to bask and hide from predators. The surrounding upland areas are frequently disturbed including discing, which would keep this species from nesting. The nearest CNDDB recorded observation was approximately 9.8 miles northeast of the project site at an unknown date prior to 1988.
Pallid bat (*Antrozous pallidus*)	CSSC	Roosts in rocky outcrops, cliffs, and crevices with access to open habitats for foraging. May also roost in caves, mines, hollow trees, and buildings. Forages over open shrub-steppe grasslands, oak savannah grasslands, open Ponderosa pine forests, talus slopes, gravel roads, lava flows, fruit orchards, and vineyards	**Unlikely.** The project site lacked suitable roosting habitat for this species. This species could fly over or forage within the project site but would not be expected to occur during construction. The nearest CNDDB recorded observation was approximately 12 miles northwest of the project site in 2004.
San Joaquin kit fox (*Vulpes macrotis mutica*)	FE, CT	Opportunistically forages in a variety of habitats. Dens in burrows within alkali sink, valley grassland, and woodland habitats in valleys and adjacent foothills and in human-made structures in cities, rangeland, and agricultural areas.	**Unlikely.** Suitable habitat for this species is absent due to frequent disturbances and lack of prey. While the site contained California ground squirrels at the time of the survey, there were also bait stations present to eliminate them from the site. The nearest recorded observation was approximately 2 miles northwest of the project site in 2001.

Species	Status*	Habitat	Occurrence within the Site
Swainson's hawk (*Buteo swainsoni*)	CT	Nests in large trees in open areas adjacent to grasslands, grain or alfalfa fields, or livestock pastures suitable for supporting rodent populations.	**Possible**. While suitable nesting trees for this species were absent within the project site there are trees large enough to nest in the surrounding areas. This species could also forage over the site. The nearest recorded observation of this species occurred approximately 3.8 miles west of the project site in 2017.
Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*)	FE, CE	Inhabits saltbush scrub and sink scrub communities in the Tulare Lake Basin of the southern San Joaquin Valley. This species needs soft friable soils to burrow.	**Unlikely.** The project site lacked suitable habitat and soft soils for this species to burrow. The nearest recorded observation was approximately 7.4 miles southwest of the project site in 1943.
Townsend's big-eared bat (*Corynorhinus townsendii*)	CSSC	Primarily a cave dwelling bat, but may also roost in tunnels, buildings, other human-made structures, and hollow trees. Occurs in a variety of habitats and forage associations include edge habitats along streams and areas adjacent to and within a variety of wooded habitats.	**Unlikely.** The project site lacked suitable roosting habitat for this species. This species could fly over or forage within the project site but would not be expected to occur during construction. The nearest CNDDB recorded observation was approximately 15 miles southeast of the project site in 1941.
Tricolored blackbird (*Agelaius tricolor*)	CT, CSSC	Nests colonially near fresh water in dense cattails or tules, or in thickets of riparian shrubs. Forages in grassland and cropland. Large colonies are often found foraging in dairy farm feed fields.	**Unlikely.** The project site lacked suitable nesting habitat. This species could forage on or fly over the site but would be expected to fly away during construction. The nearest CNDDB recorded observation was approximately 6.8 miles northeast of the project site in 2014.
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	FT	Lives in mature elderberry shrubs of the Central Valley and adjacent foothills from Tehama County south through Merced and Mariposa Counties with two scattered populations in Madera and Fresno Counties. Adults are active from March to June.	**Absent.** Suitable habitat and elderberry shrubs required by this species were absent from the site. The project site is located outside of the known range for this species.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	Occupies vernal and seasonal pools, with clear to tea-colored water, in grass or mud-bottomed swales, and basalt depression pools.	**Absent.** Suitable vernal pool habitat was absent from the project site.
Western mastiff bat (*Eumops perotis californicus*)	CSSC	Found in open, arid to semi-arid habitats, including dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas, where it feeds on insects in flight. Roosts most commonly in crevices in cliff faces but may also use high buildings and tunnels.	**Unlikely.** The project site lacked suitable roosting habitat for this species. This species could fly over or forage within the project site but would not be expected to occur during construction. The nearest recorded observation was approximately 8.4 miles north of the project site in 1994.
Western spadefoot (*Spea hammondii*)	CSSC	The majority of the time this species is terrestrial and occurs in small mammal burrows and soil cracks, sometimes in the bottom of dried	**Unlikely.** Although the project site contains marginally suitable habitat for this species such as the stormwater basin, the odds of this species occurring

Species	Status*	Habitat	Occurrence within the Site
		pools. Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Vernal or seasonal pools, that hold water for a minimum of three weeks, are necessary for breeding.	here are low. In addition, the highly disturbed surrounding areas make it unlikely that this species would occur within the project site. The last recorded observation was approximately six miles northeast of the project site in 1991.
Western yellow-billed cuckoo (*Coccyzus americanus*)	FT, CE	Suitable nesting habitat in California includes dense riparian willow-cottonwood and mesquite habitats along a perennial river. Once common in the California Central Valley, as well as coastal valleys and riparian habitats east of the Sierra Nevada, habitat loss now constrains the California breeding population to small numbers of birds.	**Absent.** Suitable habitat was absent from the project site.

***EXPLANATION OF OCCURRENCE DESIGNATIONS AND STATUS CODES**

Present:	Species observed on the project site at time of field surveys or during recent past.
Likely:	Species not observed on the project site, but it may reasonably be expected to occur there on a regular basis.
Possible:	Species not observed on the project site, but it could occur there from time to time.
Unlikely:	Species not observed on the project site, and would not be expected to occur there except, perhaps, as a transient.
Absent:	Species not observed on the project site and precluded from occurring there due to absence of suitable habitat.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CCE	California Endangered (Candidate)
FC	Federal Candidate	CT	California Threatened
FPT	Federally Threatened (Proposed)	CFP	California Fully Protected
		CSSC	California Species of Special Concern

CNPS LISTING

1B	Plants rare, threatened, or endangered in California and elsewhere.
2B	Plants rare, threatened, or endangered in California, but more common elsewhere.

4.4.2 Impact Analysis

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant Impact with Mitigation Incorporated. Of the 18 regionally occurring special status plant species, all are considered absent from or unlikely to occur within the Project site due to past or ongoing disturbance and/or the absence of suitable habitat. Since it is unlikely that these species would occur onsite, implementation of the Project should have no impact on these 18 special status species through construction mortality, disturbance, or loss of habitat. Mitigation measures are not warranted.

Of the 19 regionally occurring special status animal species, 18 are considered absent from or unlikely to occur within the project site due to past or ongoing disturbance and/or the absence of suitable habitat. These species include: American badger, California condor, California tiger salamander, Crotch's bumble

bee, foothill yellow-legged frog, monarch butterfly, northern California legless lizard, northwestern pond turtle, pallid bat, San Joaquin kit fox, Tipton kangaroo rat, Townsend's big-eared bat, tricolored blackbird, valley elderberry longhorn beetle, vernal pool fairy shrimp, western mastiff bat, western spadefoot, and western yellow-billed cuckoo. Since it is unlikely that these species would occur onsite, implementation of the project should have no impact on these 18 special status species through construction mortality, disturbance, or loss of habitat. Mitigation measures are not warranted.

Project-Related Mortality and/or Nest Abandonment of Migratory Birds and Raptors, including Swainson's Hawk

The Project would result in the construction of a brine pond that would hold water with saturated sodium chloride brine (approximately 25% NaCl) and elevated levels of nitrate and potentially elevated levels of arsenic that could impact migratory birds and raptors, and implementation of the Project has the potential to impact nesting migratory birds and raptors including Swainson's hawk. The construction of the brine pond could potentially attract aquatic and semi-aquatic birds. While birds generally avoid areas that could harm them, birds that land on or adjacent to this pond could become encrusted with salt and drown or impact their ability to fly. If birds preen their feathers that are covered with toxic brine water or drink toxic brine water from the brine pond, they could become sick or die due to toxicosis. Raptors could forage on birds with toxicosis and could have secondary poisoning. This would be an ongoing potential impact to migratory birds and raptors for the life of the project, or whenever there was toxic brine water or residual toxic brine in the proposed brine pond. In addition, the project site contains suitable nesting habitat for a variety of protected bird species, such as migratory birds and raptors. It is anticipated that during the nesting bird season, protected birds could nest on the ground or in shrubs, trees, or structures within the project site. Protected birds located within or adjacent to the project site during construction have the potential to be injured or killed by project-related activities.

In addition to the direct "take" of protected birds within the project site and adjacent areas, these birds nesting in these areas could be disturbed by project-related activities resulting in nest abandonment. Projects that adversely affect the nesting success of protected birds or result in the mortality of the migratory birds and raptors would be a violation of State and federal laws and considered a potentially significant impact under CEQA.

While foraging habitat for protected birds including Swainson's hawk is present on the site, suitable foraging habitat is located adjacent to the site and within the vicinity of the site. Loss of the foraging habitat from implementation of the project is not considered a significant impact.

Implementation of mitigation measures BIO-1 through BIO-4 will reduce potential impacts to protected birds to a less than significant level under CEQA and help comply with State and federal laws protecting these bird species.

Mitigation

BIO-1 Prior to filling the brine pond, deterrents shall be put in place to discourage birds from using the pond. This could include a combination of visual, auditory, and physical deterrents for birds to minimize the potential for protected birds to utilize the brine pond. Examples include deterrents such as noise makers, ribbons, lasers, motion-triggered sprinklers, decoys, and others.

BIO-2 The Project's construction activities shall occur, if feasible, between September 16 and January 31 (outside of the nesting bird season) to avoid impacts to nesting birds.

BIO-3 If Project construction activities must occur within the nesting bird season (February 1 to August 31), a qualified biologist shall conduct a pre-construction survey for active nests within seven (7) calendar days prior to the start of construction. The survey shall include a one-time take avoidance survey for Swainson's hawk and other birds and raptors. The survey shall be completed within the Project site, and up to 100 feet outside of the Project site for nesting migratory birds, up to 500 feet outside of the project site for nesting raptors, and up to 0.5-mile outside of the project site for nesting Swainson's hawks. Raptor nests shall be considered "active" upon the nest-building stage. The survey shall not be completed between April 21 to June 10 due to the difficulty of identifying Swainson's hawk nests during this time of year. If no active nests are observed, no further mitigation is required.

BIO-4 If discovery of any active nests or breeding colonies occurs within 50 feet of a work area, a qualified biologist shall determine appropriate avoidance buffer distances based on applicable CDFW and/or USFWS guidelines, the biology of the species, conditions of the nest(s), and the level of project disturbance. If necessary, avoidance buffers shall be identified and shall be maintained until the biologist has determined that the nestlings have fledged.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. Riparian habitat is absent from the Project site and adjacent areas. There are no CNDDB-designated "natural communities of special concern" recorded within the Project site or surrounding areas. There would be no impact. No mitigation measures are required.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than Significant Impact. Typical wetlands, vernal pools, and other waters were not observed onsite at the time of the field survey. The only aquatic feature onsite is a stagnant, isolated, stormwater basin with no connection to navigable waters or a natural drainage channel with a bed or bank, and therefore it can be reasonably assumed that jurisdictional waters are absent. There are no designated wild and scenic rivers within the Project site; therefore, the Project would not result in direct impacts to wild and scenic rivers. No mitigation measures are required.

Since construction would involve ground disturbance over an area greater than one acre, the Project would also be required to obtain a Construction General Permit under the Construction Storm Water Program administered by the Regional Water Quality Control Board (RWQCB). A prerequisite for this permit is the development of a Storm Water Pollution Prevention Plan (SWPPP) to ensure construction activities do not adversely affect water quality. Impacts would be less than significant. No mitigation measures are required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The Project site does not contain features that would be likely to function as wildlife movement corridors. The surrounding areas are commercial and residential with paved roads; it is unlikely construction would affect animal dispersion and migration. The Project site contains a stormwater basin that could potentially be used as a native wildlife nursery site by aquatic and semi-aquatic species. The basin is not proposed to be impacted by the project. Therefore, the Project would have no impact on wildlife movement corridors or native wildlife nursery sites, and no mitigation measures are required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The Project appears to be consistent with the goals and policies of the Tulare County General Plan. There are no known Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs) in the Project vicinity. There would be no impact. No mitigation measures are required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project is not located within the boundaries of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan. There would be no impact. No mitigation measures are required.

4.5 CULTURAL RESOURCES

Table 4-12: Cultural Resources Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

4.5.1 Baseline Conditions

Phase 1 Cultural Resources Survey

A Phase I Cultural Resources Assessment was prepared for the Project by Taylored Archaeology, dated February 2024 (See Appendix C). As part of the Phase I Cultural Resources Assessment, qualified archaeologists conducted an intensive pedestrian survey of the Project Area of Potential Effect (APE) on January 20, 2024. The APE consisted of a stormwater basin and municipal well within the northern three-quarters of the APE, and an empty field in the southwestern quarter of the APE. The natural topography of the area within the APE was previously altered by human development. The surrounding land uses included orchards, empty fields, commercial buildings, an elementary school, and residences. The bottom of the stormwater basin in the center of the APE was inaccessible due to stormwater and muddy conditions. The perimeter of the APE was enclosed within a chain-link fence, and the APE was partitioned between the empty field and the stormwater basin by an additional chain-link fence. The perimeter of the stormwater basin consisted of a dirt access road with annual grasses and scattered vegetation. Well 11 and a storage tank were observed along the northern central boundary of the APE. The survey resulted in one previously unrecorded historic archaeological site. The archaeological site consisted of the remnants of a rural residence which was constructed between 1929 to 1946 and demolished between 1984 to 1990. This resource was evaluated and did not meet Criteria 1 through 4 for listing on the California Register of Historic Resources nor Criteria A through D for listing on the National Register of Historic Places.

Records Search

On January 16, 2024 a cultural resource records search was requested from the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS) at California State University in Bakersfield, California. The purpose of this request was to identify and review prior cultural resource investigations completed in or near the APE and identify any prehistoric or historical resources that had been previously recorded within the APE and a 0.5-mile radius of the surrounding area. SSJVIC staff researched historical USGS topographic maps, reports of previous cultural resource investigations, archaeological site and survey base maps, DPR forms as well as listings of the Historic

Properties Directory of the Office of Historic Preservation, General Land Office Maps, Archaeological Resources Directory, and the California Inventory of Historic Resources.

According to the CHRIS results, one prior cultural study report was conducted within the APE, and 11 cultural study reports were conducted within a 0.5-mile radius of the APE. The records search also stated that there are no cultural resources previously recorded within the APE, but two cultural resources (P-54-004626 and CHL-471) were previously recorded within 0.5-mile radius of the APE.

Native American Outreach

On January 3, 2024, a request was sent to the Native American Heritage Commission (NAHC) as part of this archaeological survey report for a Sacred Lands File (SLF) search. The objective of the SLF search was to identify any known places of spiritual, sacred activity or traditional use or gathering areas are present in or near the APE. The NAHC responded on January 11, 2024, with a letter indicating negative results and included contact information for local Native American tribal representatives who may have knowledge or interest in sharing information about the APE and surrounding area. On January 25, 2024, each Native American representative listed was sent a nongovernmental outreach letter via email or certified mail notifying them of the Project and asking if they had any knowledge of the Project area or surrounding vicinity. Follow-up communication was performed via email or phone call as appropriate.

4.5.2 Impact Analysis

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

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

a and b) Less than Significant Impact with Mitigation Incorporated. A CHRIS records search, from the SSJVIC, was conducted January 16, 2024. According to the SSJVIC, one previous study (TU-00046) has been conducted within the Project APE, and 11 previous studies were identified within the 0.5 mi. radius. The SSJVIC results identified no previously recorded cultural resources within the APE, but two were identified within the 0.5 mile radius of the Project APE. The Project will not impact these known cultural resources.

It is unlikely that the Project has the potential to result in significant impacts or adverse effects to cultural or historical resources, such as archaeological remains, artifacts, or historic properties. However, in the improbable event that cultural resources are encountered during Project construction, implementation of mitigation measure **CUL-1** outlined below would reduce impacts to less than significant.

Mitigation

CUL-1 In the event that previously unidentified archaeological remains are encountered during development or ground-moving activities in the APE, all work shall be halted until a qualified archaeologist can identify the discovery and assess its significance. In the event of accidental discovery of unidentified archaeological remains during development or ground-moving activities in the APE, all work shall be halted in the immediate vicinity until a qualified archaeologist can identify the discovery and assess its significance.

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

Less than Significant Impact with Mitigation Incorporated. There is no evidence or record that the Project has the potential to be an unknown burial site, or the site of buried human remains. In the unlikely event of such a discovery, mitigation shall be implemented. With incorporation of mitigation measure CUL-2 outlined below, impacts resulting from the discovery of remains interred on the Project site would be less than significant.

Mitigation

CUL-2 If human remains are uncovered during construction, the Tulare County Coroner shall be notified to investigate the remains and arrange proper treatment and disposition. If the remains are identified on the basis of archaeological context, age, cultural associations, or biological traits to be those of a Native American, California Health and Safety Code 7050.5 and PRC 5097.98 require that the coroner notify the NAHC within 24 hours of discovery. The NAHC will then identify the Most Likely Descendants who will be afforded an opportunity to make recommendations regarding the treatment and disposition of the remains.

4.6 ENERGY

Table 4-13: Energy Impacts

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

4.6.1 Baseline Conditions

The proposed water treatment Project would be located within the city of Lindsay. This area is served by Southern California Edison for its energy needs and by Southern California Gas Company for natural gas.

4.6.2 Impact Analysis

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

Less than Significant Impact. Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. For heavy-duty construction equipment, horsepower and load factor were assumed using default data from the CalEEMod model. Fuel use associated with construction vehicle trips generated by the Project was also estimated; trips include construction worker trips, haul trucks trips for material transport, and vendor trips for construction material deliveries. Fuel use from these vehicles traveling to the Project was based on (1) the projected number of trips the Project would generate (CalEEMod default values), (2) default average trip distance by land use in CalEEMod, and (3) fuel efficiencies estimated in the ARB 2017 Emissions Factors model (EMFAC2017) mobile source emission model.

Construction is estimated to consume a total of 21,300 gallons of diesel fuel and 80 gallons of gasoline fuel. California Code of Regulations Title 13, Motor Vehicles, Section 2449(d)(2), Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel because of unproductive idling of construction equipment. In addition, the energy consumption for construction activities would not be ongoing as they would be limited to the duration of Project construction.

Operational deliveries are anticipated to consume approximately 2,700 gallons of diesel fuel annually. Energy consumption of non-residential uses is currently governed by the 2022 California Building Code, Part 6 for structures, and Title 20 of the California Code of Regulations for appliances. Energy consumption is anticipated to decrease over time as more energy efficient standards take effect and

energy-consuming equipment reaches its end-of-life and necessitates replacement. Therefore, impacts would be less than significant. No mitigation measures are required.

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

No Impact. State and local authorities regulate energy use and consumption. These regulations at the State level are intended to reduce energy use and greenhouse gas (GHG) emissions. These include, among others, Assembly Bill (AB) 1493 – Light-Duty Vehicle Standards; California Code of Regulations Title 24, Part 6 – Energy Efficiency Standards; and California Code of Regulations Title 24, Parts 6 and 11 – California Energy Code and Green Building Standards. The Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Therefore, there would be no impact. No mitigation measures are required.

4.7 GEOLOGY AND SOILS

Table 4-14: Geology and Soils Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the 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 wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☒	☐

4.7.1 Baseline Conditions

Geology and Soils

The Project is located in the city of Lindsay. The Project site is relatively flat, typical of lands found in the Central San Joaquin Valley. The Project site is located in the southern section of California's Great Valley Geomorphic Province, or Central Valley. The Sacramento Valley makes up the northern third and the San Joaquin Valley makes up the southern two-thirds of the geomorphic province.[12] Both valleys are watered by large rivers flowing west from the Sierra Nevada Range, with smaller tributaries flowing east from the

[12] (California Department of Conservation 2002)

Coast Ranges. Most of the surface of the Great Valley is covered by Quaternary (present day to 1.6 million years ago) alluvium. The sedimentary formations are steeply upturned along the western margin due to the uplifted Sierra Nevada Range. From the time the Valley first began to form, sediments derived from erosion of igneous and metamorphic rocks and consolidated marine sediments in the surrounding mountains have been transported into the Valley by streams.

Faults and Seismicity

Groundshaking is the primary seismic hazard in Tulare County due to the County's seismic setting and its record of historical activity. The city of Lindsay is located on the valley floor and the valley portion of Tulare County is located on alluvial deposits, which tend to experience greater groundshaking intensities than areas located on hard rock. This results in greater damage to structures on the valley floor compared to those located in the foothills and the mountain areas of the County.[13] The Project site is not located within an Alquist-Priolo Earthquake Fault Zone and no known faults cut through the soil at the site. The nearest major fault is the Owens Valley Fault Zone, Olancha section, located approximately 60.7 miles Northeast of the Project site.[14] The San Andreas Fault is the dominant active tectonic feature of the Coast Ranges and represents the boundary of the North American and Pacific plates. A smaller fault zone, the Pond Fault is approximately 35.6 miles southwest of the site.[15]

Liquefaction

The potential for liquefaction, which is the loss of soil strength due to seismic forces, is dependent on soil types and density, the groundwater table, and the duration and intensity of ground shaking. Although no specific liquefaction hazard areas have been identified in the county, this potential is recognized throughout the San Joaquin Valley where unconsolidated sediments and a high-water table coincide. It is reasonable to assume that due to the depth to groundwater within the southern portion of Tulare County, liquefaction hazards would be negligible. Soil conditions are key factors in selecting locations for direct groundwater recharge projects. Using the United States Department of Agriculture Natural Resources Conservation Service soil survey of the Project site, an analysis of the soils was performed. Soils in the area consist of Exeter loam and Greenfield sandy loam all of which are 0–2% slopes and well drained.

Soil Subsidence

There are two types of Subsidence: Land subsidence and hydrocompaction subsidence. Hydrocompaction subsidence occurs when a large land area settles due to over-saturation. These areas are typically composed of open-textured soils that become saturated, high in silt or clay content. Land subsidence occurs when an extensive amount of ground water, oil, or natural gas is withdrawn from below the ground surface. The San Joaquin Valley has become an area that has increasingly experienced subsidence due to excessive groundwater pumping activities lowering the water table. The Project site consists of Exeter loam and Greenfield sandy loam. These soil types have a low to moderate risk of subsidence.

Dam and Levee Failure

There is no inundation zone within 10 miles of the Project site.[16]

[13] (County of Tulare Resource Management Agency 2015)
[14] (California Department of Conservation 2023)
[15] Ibid.
[16] (California Department of Water Resources 2022)

4.7.2 Impact Analysis

a) Would the project 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.

Less than Significant Impact. The nearest major fault is the Owens Valley Fault Zone, Olancha section, located approximately 60.7 miles northeast of the Project site. A smaller fault zone, the Pond Fault is approximately 35.6 miles southwest of the site. The Project does not include habitable residential, agricultural, commercial, or industrial structures. Operation of the Project would require infrequent, routine maintenance visits. Any impact would be less than significant. No mitigation measures are required.

ii. Strong seismic ground shaking?

No Impact. The Project site and its vicinity are located in an area traditionally characterized by relatively low seismic activity. The site is not located in an Alquist-Priolo Earthquake Fault Zone as established by the Alquist-Priolo Fault Zoning Act (Section 2622 of Chapter 7.5, Division 2 of the California Public Resources Code). The Project does not include any activities or components which could feasibly cause strong seismic ground shaking, either directly or indirectly. Therefore, there would be no impact. No mitigation measures are required.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. Liquefaction occurs when loose, water-saturated sediments lose strength and fail during strong ground shaking. In general, liquefiable areas are generally confined to the Valley floor covered by Quaternary-age alluvial deposits, Holocene soil deposits, current river channels, and active wash deposits and their historic floodplains, marshes, and dry lakes. Specific liquefaction hazard areas in the county have not been identified. The Project site is not in a wetland area and is located in the southwestern portion of the County where liquefaction risk is considered low to moderate. The impact would be less than significant. No mitigation measures are required.

iv. Landslides?

Less than Significant Impact. As the Project is located on the Valley floor, no major geologic landforms exist on or near the site that could result in a landslide event. The potential landslide impact at this location is minimal as the site is more than five miles from the foothills and the local topography is essentially flat and level. Therefore, impacts would be less than significant. No mitigation measures are required.

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

Less than Significant Impact. Earthmoving activities associated with the Project would include excavation, basin grading and expansion. These activities could expose soils to erosion processes and the extent of erosion would vary depending on slope steepness/stability, vegetation/cover, concentration of runoff,

and weather conditions. Dischargers whose projects disturb one (1) or more acres of soil, or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development of a SWPPP by a certified qualified SWPPP developer. Through the completion of a SWPPP, any possible impacts from construction related activities involving soil erosion and loss of topsoil would be reduced. Therefore, impacts would be less than significant. No mitigation measures are required.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant Impact. The Project site and the surrounding lands generally do not have any substantial grade changes to the point where implementation of the Project would expose people or structures to potential substantial adverse effects on- or offsite such as landslides, lateral spreading, subsidence, liquefaction, or collapse. While the site does include a stormwater basin, the basin is not considered a hazard in regard to landslides, lateral spreading, subsidence, liquefaction or collapse. Subsidence and liquefaction risk are low to moderate at the site. In addition, Project infrastructure would be constructed on reinforced concrete slabs where applicable. These concrete slabs would provide a stable platform for proposed facilities and would reduce any potential impacts. Therefore, impacts would be less than significant. No mitigation measures are required.

d) Would the project 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?

No Impact. The soils at the Project site are primarily comprised of Exeter loam and Greenfield sandy loam. Permeability is moderate. The Project would not contain any facilities that could be affected by expansive soils, nor would substantial grading change the topography such that the project would generate substantial risks to life or property. The Project would be consistent with the California Building Standards Code; therefore, there would be no impact. No mitigation measures are required.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. Septic installation or alternative wastewater disposal systems are not necessary or a part of the project. There would be no impact. No mitigation measures are required.

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

No Impact. Paleontological resources are fossilized remains of flora and fauna and associated deposits. Most fossils are found in sedimentary rock. Sedimentary rock is formed by dirt (sand, silt, or clay) and debris that settles to the bottom of an ocean or lake and compresses for such a long time that it becomes hard as a rock. CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix

G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) Section 15126.4(a)(1)). PRC Section 5097.5 (see above) also applies to paleontological resources.

The Project would require grading and excavation activities on a site that has been previously disturbed from earthwork. The Project would comply with California Public Resources Code Section 5097.5 which pertains to the protection of paleontological resources. With compliance with said regulation, impacts would be less than significant.

4.8 GREENHOUSE GAS EMISSIONS

Table 4-15: Greenhouse Gas Emissions Impacts

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

4.8.1 Baseline Conditions

Commonly identified GHG emissions and sources include the following:

Carbon dioxide (CO_2) is an odorless, colorless natural greenhouse gas. CO_2 is emitted from natural and anthropogenic sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic out gassing. Anthropogenic sources include the burning of coal, oil, natural gas, and wood.

Methane (CH_4) is a flammable greenhouse gas. A natural source of methane is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain methane, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and ruminants such as cattle.

Nitrous oxide (N_2O), also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load.

Water vapor is the most abundant, and variable greenhouse gas. It is not considered a pollutant; in the atmosphere, it maintains a climate necessary for life.

Ozone (O_3) is known as a photochemical pollutant and is a greenhouse gas; however, unlike other greenhouse gases, ozone in the troposphere is relatively short-lived and, therefore, is not global in nature. O_3 is not emitted directly into the atmosphere but is formed by a complex series of chemical reactions between volatile organic compounds, nitrogen oxides, and sunlight.

Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

Chlorofluorocarbons (CFCs) are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were first synthesized in 1928 for use as

refrigerants, aerosol propellants, and cleaning solvents. CFCs destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol in 1987.

Hydrofluorocarbons (HFCs) are synthetic chemicals that are used as a substitute for CFCs. Of all the greenhouse gases, HFCs are one of three groups (the other two are perfluorocarbons and sulfur hexafluoride) with the highest global warming potential. HFCs are human-made for applications such as air conditioners and refrigerants.

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere; therefore, PFCs have long atmospheric lifetimes, between 10,000 and 50,000 years. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It has the highest global warming potential of any gas evaluated. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

There are uncertainties as to exactly what the climate changes will be in various local areas of the earth, and what the effects of clouds will be in determining the rate at which the mean temperature will increase. There are also uncertainties associated with the magnitude and timing of other consequences of a warmer planet: sea level rise, spread of certain diseases out of their usual geographic range, the effect on agricultural production, water supply, sustainability of ecosystems, increased strength and frequency of storms, extreme heat events, air pollution episodes, and the consequence of these effects on the economy.

Emissions of GHGs contributing to global climate change are largely attributable to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. About three-quarters of human emissions of CO_2 to the global atmosphere during the past 20 years are due to fossil fuel burning. Atmospheric concentrations of CO_2, CH_4, and N_2O have increased by at least 40 percent, 150 percent, and 20 percent respectively since the year 1750. GHG emissions are typically expressed in carbon dioxide-equivalents (CO_2e), based on the GHG's Global Warming Potential. The GWP is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, one ton of CH_4 has the same contribution to the greenhouse effect as approximately 25 tons of CO_2. Therefore, CH_4 is a much more potent GHG than CO_2. In accordance with SJVAPCD's *CEQA Greenhouse Gas Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects*[17], proposed projects complying with Best Performance Standards (BPS) would be determined to have a less-than-significant impact. Projects not complying with BPS would be considered less than significant if operational GHG emissions would be reduced or mitigated by a minimum of 29 percent, in comparison to business-as-usual (year 2004) conditions. In addition, project-generated emissions complying with an approved plan or mitigation program would also be determined to have a less-than-significant impact.

[17] (San Joaquin Valley Air Pollution Control District 2009)

4.8.2 Impact Analysis

Project Related Emissions

Construction of the Project is assumed to be completed over approximately six months. Emissions associated with the Project were calculated using CalEEMod Air Quality Model, Version 2022.1.1.20. The emissions modeling includes emissions generated by off-road equipment, haul trucks, and worker commute trips. Emissions were quantified based on anticipated construction schedules and the default parameters contained in the model. Localized air quality impacts associated with the Project would be minor and were qualitatively assessed. Modeling assumptions and output files are included in Appendix A. Estimated construction-generated emissions are summarized in Table 4-16. GHGs impact the environment over time as they increase and contribute to climate change.

Table 4-16: Short Term Construction Related GHG Emissions

	Emissions (MT CO_2e) in Tons per Year
Maximum Annual Construction CO_2e Emissions	231.6
Maximum Annual Operational CO_2e Emissions	24.75
AB 32 Consistency Threshold for Land-Use Development Projects*	1,100
Threshold Exceeded?	No

* As published in the Bay Area Air Quality Management District's CEQA Air Quality Guidelines. Available online at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en Accessed 5/24/2024.

Construction related generation of GHGs would be a maximum of 231.6 Metric Tons of Carbon Dioxide Equivalent (MT CO2e) per year, while operational emissions, composed of brine deliveries to the CleanHarbors disposal facility, are expected to be negligible at 25 MTCO2e. The Project would not exceed the AB 32 consistency threshold for land use projects for both short term construction emissions and long-term operational emissions as a result. No mitigation measures are required.

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

Less than Significant Impact. The Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. As shown in Table 4-16, the Project is not expected to result in the generation of GHG emissions that would exceed the AB 32 consistency threshold of 1,100 MT CO2e annually during both construction activities. Due to the nature of the proposed use, the Project is expected to result in the generation of negligible quantities of emissions during operational activities. Therefore, impacts would be less than significant. No mitigation measures are required.

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

Less than Significant Impact. The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Project would comply with all SJVAPCD policies and regulations and would not exceed an applicable threshold for GHG emissions. Therefore, there would be no impacts. No mitigation measures are required.

4.9 HAZARDS AND HAZARDOUS MATERIALS

Table 4-17: Hazards and Hazardous Materials Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard 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?	☐	☐	☒	☐

4.9.1 Baseline Conditions

Hazardous Materials

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code (GC) Section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. The Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List. DTSC's EnviroStor database provides DTSC's component of Cortese

List data (DTSC, 2010). In addition to the EnviroStor database, the SWRCB Geotracker database provides information on regulated hazardous waste facilities in California, including underground storage tank (UST) cases and non-UST cleanup programs, including Spills-Leaks-Investigations-Cleanups (SLIC) sites, Department of Defense (DOD)sites, and Land Disposal program. A search of the DTSC EnviroStor database and the SWRCB Geotracker performed on August 14, 2024 determined that there are no known active hazardous waste generators or hazardous material spill sites within the Project site.[18]

Airports

The closest airstrip to the Project site is Eckert Field which is located approximately 5.4 miles southeast of the Project. The Porterville Municipal Airport is located approximately 13.9 miles south of the Project. The Fresno Yosemite International Airport is located approximately 63.7 miles northwest of the Project.

Emergency Response Plan

The Tulare County Office of Emergency Services coordinates the development and maintenance of the Tulare County Operational Area Master Emergency Services Plan. Additionally the city of Lindsay, also follows an Emergency Management Plan within its public safety manual.[19]

Sensitive Receptors

There are several rural single-family homes located east adjacent to the Project site and to the north of the Project site. Jefferson Elementary School is located approximately 0.17 miles southeast of the Project.

4.9.2 Impact Analysis

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b) Would the project 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?

a and b) Less than Significant Impact. Equipment and materials used during construction activities would include fuels, oils, and lubricants. The routine use or an accidental spill of hazardous materials used in construction could result in inadvertent releases, which could adversely affect construction workers, the public, and the environment. Any potential accidental hazardous materials spills during Project construction are the responsibility of the contractor to remediate in accordance with industry best management practices (BMPs) and State and County regulations. Any impacts would therefore be less than significant. No mitigation measures are required for construction of the Project.

During operation, the perchlorate treatment system would generate only a small volume of waste during backwashing, which only occurs when resin is changed out. This backwash waste would be nonhazardous, would not include brine, and should be of a quality that can be discharged into the adjacent storm water basin. Conversely, the nitrate treatment process would generate waste brine daily. Provided the perchlorate is removed upstream of the nitrate treatment system, the nitrate treatment brine should be classified as nonhazardous. However, the brine will be very high in total dissolved solids (i.e. salt) and will

[18] (California Department of Toxic Substances Control 2024); (State of California 2020)
[19] Lindsay Department of Public Safety Policy Manual

also contain elevated levels of nitrate and other anions the treatment system removes from the water. For the nitrate treatment waste disposal, the Project would utilize on-stie double-lined evaporation and subsequent disposal of salt. When operating at full capacity, 24 hours per day, the treatment plant is estimated to use approximately 1.4 lbs of salt per kilogallons of water produced by the well. That salt would constitute the majority of the dissolved solids in the waste brine. CleanHarbors, which would be the disposal site, requires that the salt be dry and packaged in drums or 2,000-lb capacity super sacks before transport. This would ensure that there would be no significant hazard to the public or environment during transportation to the disposal site. Impacts would be less than significant. No mitigation measures are required.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than Significant Impact. The Project site is located 0.17 miles northwest of Jefferson Elementary School. The perchlorate treatment system will generate only a small volume of waste during backwashing, which only occurs when resin is changed out. This backwash waste will be nonhazardous, will not include brine, and should be of a quality that can be discharged into the adjacent storm water basin. Conversely, the nitrate treatment process will generate waste brine daily. The design of the system will remove the perchlorate upstream of the nitrate treatment system, thus the nitrate treatment brine should be classified as nonhazardous. However, the brine will be very high in total dissolved solids (i.e. salt) and will also contain elevated levels of nitrate and other anions the treatment system removes from the water. The site contains a perimeter fence to prevent unauthorized persons from accessing the site. The Project would adhere to BMPs involving the use and transport of hazardous materials. Therefore, impacts would be less than significant. No mitigation measures are required.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The Project would not involve land that is actively listed as a hazardous materials site pursuant to Government Code Section 65962.5 and is not included on a list compiled by the DTSC. Both the SWRCB's GeoTracker and DTSC's EnviroStor websites were checked for contaminated groundwater or sites in the area. There would be no impact. No mitigation measures are required.

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?

No Impact. The closest airstrip to the Project site is Eckert Field which is located approximately 5.4 miles southeast of the Project. The Porterville Municipal Airport is located approximately 13.9 miles south of the project. The Fresno Yosemite International Airport is located approximately 63.7 miles northwest of the project. The Project site is not located within an airport land use plan or within two miles of an airport. There would be no impact. No mitigation measures are required.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The provision of treatment facilities to the existing city of Lindsay Well 11 would not impair or physically interfere with any adopted emergency response or emergency evacuation

plan. Well treatment upgrades would occur within the Project site and would be required to meet City Fire Department and Police Department standards that would ensure any impacts would be less than significant. Therefore, impacts would be less than significant. No mitigation measures are required.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant Impact. According to the California Department of Forestry and Fire Protection (CalFire), the Project is not located in a State Responsibility Area (SRA) or a Very High Fire Hazard Severity Zone. The nearest SRA is located approximately 2.6 miles to the east of the Project. The nearest Very High Fire Hazard Severity Zone is located approximately 14.5 miles east of the Project.[20] Typically, wildland fires are associated with grasslands and open space. The Project is located in the City, which contains urban uses such as residences and commercial buildings. The Project would not include any residential components, nor would it require any employees to be stationed permanently at the site on a daily basis. Any impacts from directly or indirectly exposing people or structures to injury or death involving a wildland fire would be considered less than significant. No mitigation measures are required.

[20] (California Department of Forestry and Fire Protection 2022) (ArcGIS 2023)

4.10 HYDROLOGY AND WATER QUALITY

Table 4-18: Hydrology and Water Quality Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements 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 off-site;	☐	☐	☒	☐
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?	☐	☐	☐	☒

4.10.1 Baseline Conditions

The Project is located in the Kaweah Subbasin of the overarching San Joaquin Valley Groundwater Basin. The basin is part of the Tulare Lake Hydrologic Region which stretches from north of Fresno to south of Bakersfield near the Grapevine. The San Joaquin Valley Groundwater Basin is divided into seven subbasins. The Kaweah Subbasin, where the Project site is located, is approximately 446,000 acres large within Tulare County. The Kaweah subbasin lies between the Kings Groundwater Subbasin to the north, the Tule Groundwater Subbasin to the south, crystalline bedrock of the Sierra Nevada foothills to the east, and the

Kings River Conservation District to the west. The subbasin comprises lands in the Kaweah Delta Water Conservation District. Major rivers and streams in the subbasin include the Kaweah and St. John's Rivers.[21]

4.10.2 Impact Analysis

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant Impact. Construction of the Project could introduce sediments and other contaminants typically associated with construction into stormwater runoff. Stormwater flowing over the Project features during construction could carry various pollutants downstream such as sediment, nutrients, bacteria and viruses, oil and grease, heavy metals, organics, pesticides, and miscellaneous waste. These pollutants could originate from soil disturbances, construction equipment, building materials, and workers. Erosion potential and water quality impacts are always present during construction and occur when protective vegetative cover is removed, and soils are disturbed. In the case of the Project, it is primarily grading, and the cut and fill associated with facility improvements.

As discussed in Section 4.7 Geology and Soils, the Project would require coverage under the SWRCB Construction General Permit. In accordance with the requirements of the Construction General Permit, prior to construction of the Project, a risk assessment must be prepared and submitted to the Central Valley RWQCB to determine the Project's risk level and associated water quality control requirements. These requirements would include the preparation and implementation of a SWPPP identifying specific BMPs to be implemented and maintained on the site in order to comply with the applicable effluent standards. The Construction General Permit requires construction sites to be inspected before and after storm events and every 24 hours during extended storm events. Inspections identify any BMP maintenance requirements and determine the effectiveness of the BMPs. Other than the potential minor drainage changes and minor additional sources of runoff when compared baseline conditions, the Project would not include activities that would substantially degrade water quality. Compliance with the SWRCB requirements would ensure that water quality impacts during the construction phase of the Project would be less than significant.

The Project would address the contamination issue with Well 11 and return it back to service. Without mitigation of the nitrate and perchlorate contamination at Well 11, any use of the well would result in a violation of two primary drinking water standards, both of which have the potential to result in acute health effects. Treatment for both perchlorate and nitrate would be accomplished utilizing ion exchange treatment processes. Perchlorate would first be removed utilizing a single-use perchlorate-selective ion exchange resin. Nitrate would then be removed using a regenerable ion exchange treatment system. The most economical means of disposing of the waste brine from the nitrate treatment process would be to concentrate the brine in two proposed on-site evaporation ponds prior to having it trucked to CleanHarbors Buttonwillow waste management facility. Both evaporation ponds would be double-lined with polyethylene material that would prevent percolation of salts into the underlying groundwater. Additionally, a pond leakage detection system would be installed to monitor any potential defects during operation. Furthermore, netting over the ponds would be implemented for additional protection. By doing this, the Project would improve water quality and avoid any potential significant impacts. Impacts would be less than significant. No mitigation measures are required.

[21] (California Department of Water Resources 2004)

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

Less than Significant Impact. The Project would bring the city of Lindsay's Well 11 back into service by constructing a treatment system designed to remove both perchlorate and nitrate. The rehabilitation of Well 11 would expand the City's water supply from what is present, but not in a historical manner as it used to be in use prior to its inactivity status. The City's water supply deficit is most critical during periods of extreme drought. During normal years, the City's contracted Central Valley Project (CVP) water allocation is 2,500 acre-feet, which is sufficient for the City to supply most of its water needs using its surface water treatment plant. However, during years of severe or extreme drought, including the recent instance of 2022, the City's Friant Kern Canal water allocation can be severely reduced or unfulfilled entirely. Even if water conservation measures are implemented, it is necessary to reactivate Well 11 to meet system demands. While the underlying Kaweah Subbasin is critically-overdrafted, the Project would not significantly increase overall groundwater demand as the City already supplements its water demand with groundwater using Well 14 and Well 15. Reactivating Well 11 would bolster the City's ability to meet its demand. Additional groundwater extraction would vary based on availability of surface water supplies.

The Project is intended to improve water quality and bolster the city of Lindsay's water supply to ensure redundancy. Therefore, implementation of the Project would not interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the Kaweah Subbasin, nor would it substantially decrease ground water supplies. The City has already implemented the management action project (the adjacent recharge basin) in the Groundwater Sustainability Plan[22] and that project would not hinder or conflict with this Project. Any impacts would be less than significant. No mitigation measures are required.

c) Would the project 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 off-site;

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?

a-i – a-iv) Less than Significant Impact. The Project includes changes to the existing stormwater drainage pattern of the area through the backfilling of the site and installation of impermeable (concrete/asphalt) surfaces and/or structures associated with Project facilities. It is not expected that the increase in impermeable surface would substantially alter the drainage pattern of the area. In addition, the Project site is adjacent to a stormwater basin and drainage still be directed towards it.

[22] (Intera; Provost & Pritchard Consulting Group 2024)

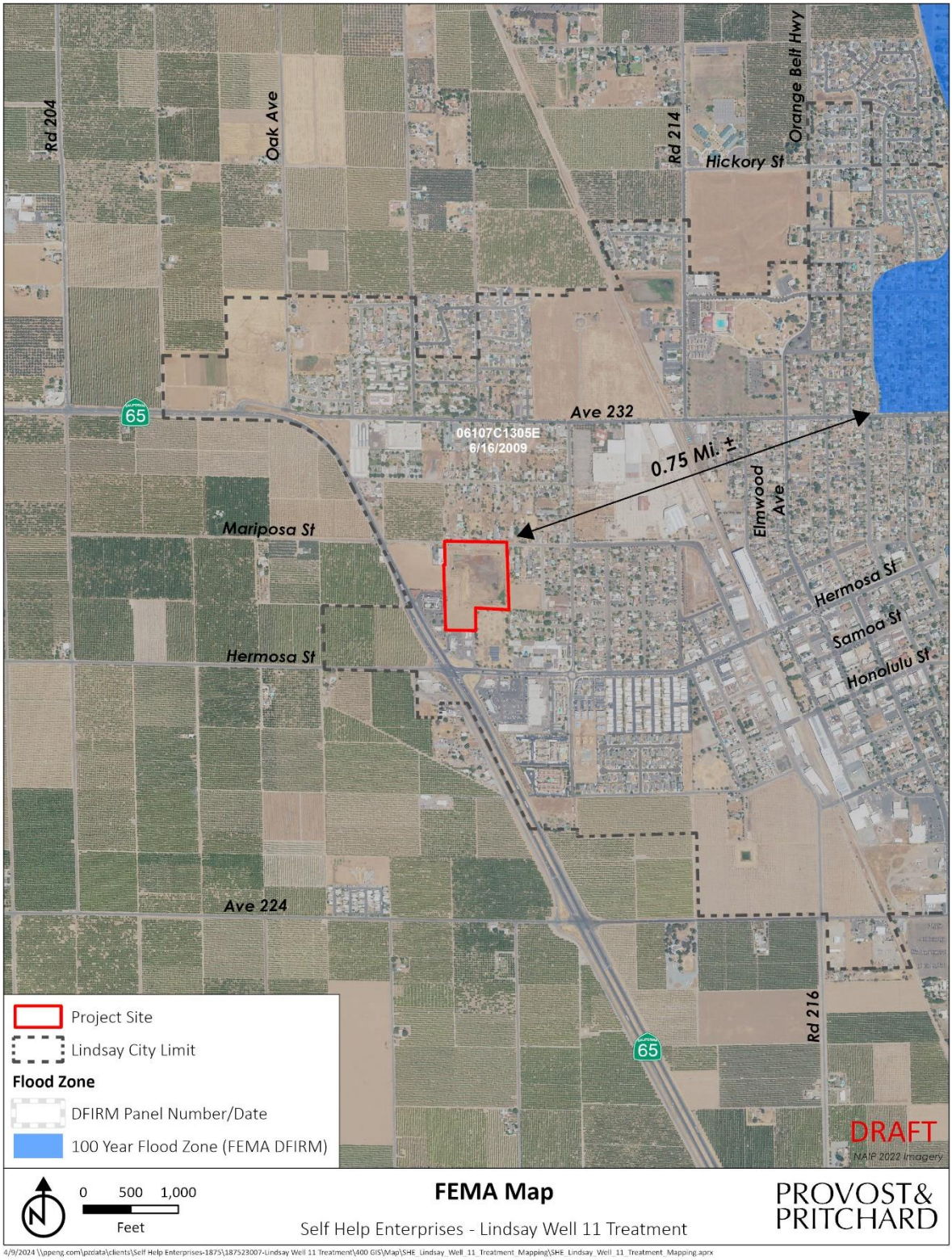
Further, the evaporation ponds depth would be constructed at a depth of six (6) feet so that there would be room for solids accumulation and freeboard. The inflow and outflow of brine into the evaporation ponds would be monitored so that the maximum level of brine would never be exceeded, reducing any impacts related from potential spillage that could seep into the ground. Therefore, any impacts resulting from drainage patterns would be less than significant. No mitigation measures are required.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundations?

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

d and e) No Impact. The Project site is not within any special flood hazard areas, or other areas of flood hazard, as identified by current Federal Emergency Management Agency Flood Insurance Rate Map (see Figure 4-3). In addition, the Project does not include any housing or structures that would be subject to flooding either from a watercourse or from dam inundation. There are no bodies of water near the site that would create a potential risk of hazards from seiche, tsunami or mudflow. The two proposed evaporation ponds would be double-lined to prevent percolation of salts into the underlying groundwater resulting in contamination. Additionally, a pond leakage detection system would be installed to monitor any potential defects during operation. The Project would not conflict with any water quality control plans or sustainable groundwater management plan. There would be no impact. No mitigation measures are required.

Figure 4-3: FEMA Flood Map



4.11 LAND USE AND PLANNING

Table 4-19: Land Use and Planning Impacts

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

4.11.1 Baseline Conditions

The Project is located in the city of Lindsay, which was incorporated into Tulare County in 1910. Lindsay is located approximately 11 miles east of Tulare and seven miles north of Porterville. As seen in other cities and communities throughout the Central Valley in California, Lindsay is an agricultural community that is surrounded by farmland and open space. However, the city itself contains various urban land uses such as residential, commercial, industrial, and public-quasi-public. As seen in Figure 2-4 and Figure 2-5, the Project is designated Park and Recreation and Highway Commercial, and is zoned for Resource, Conservation, and Open Space, Commercial Highway.

4.11.2 Impact Analysis

a) Would the project physically divide an established community?

No Impact. The Project would add perchlorate and nitrate treatment systems and two double-lined evaporation ponds for residual brine at the existing Well 11 site in order to bring back the well into service for the residents of Lindsay. Implementation of the Project would not result in any physical division within the city of Lindsay. There would be no impact. No mitigation measures are required.

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

Less than Significant Impact. The purpose of the Project is to modify an existing public facility, to provide an additional source of clean water to the city of Lindsay. The Project components would be ancillary to the already established use of the site. The Project proposes an allowed use, pursuant to Section 18.04 of the Municipal Code. Furthermore, the existing zoning districts that are allowing the Project are compatible with the existing planned land uses. Implementation of the Project would not change the existing use of the site but would only modify existing facilities to allow the continued operation of supplying clean drinking water to the city of Lindsay. The Project would be consistent with all applicable plans, policies, ordinances, and regulations, including those adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be less than significant. No mitigation measures are required.

4.12 MINERAL RESOURCES

Table 4-20: Mineral Resources Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

4.12.1 Baseline Conditions

The most important minerals of Tulare County's mineral extraction activities focus on aggregate (sand, gravel, and crushed stone), which is primarily used in building materials. These aggregate resources are the most valuable since they are used in Portland cement. Most of these extraction activities appear to occur in the Sierra Foothill Area. Historically, the Kaweah River, Lewis Creek, and the Tule River have provided the main sources of high-quality sand and gravel in Tulare County. The highest quality deposits are located at the Kaweah and Tule Rivers. According to the Tulare County General Plan Background Report, all of the known potential mineral resource locations are mapped within the foothills and/or along major watercourses. Similarly, the only active oil and gas fields are in the foothills along Deer Creek.[23]

The Project site is not delineated on a local land use plan as a locally important mineral resource recovery site.

4.12.2 Impact Analysis

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. There are no known mineral resources within the Project site.[24] Therefore, the Project would have no impact resulting in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. No mitigation measures are required.

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The California Geological Survey Division of Mines and Geology has not classified the Project site as a Mineral Resource Zone under the Surface Mining and Reclamation Act. California's Division of Oil, Gas and Geothermal Resources has no records of active oil or gas wells on the Project site. The closest

[23] (Environmental Science Associates 2010)
[24] (Tulare County 2030 General Plan Update 2010)

plugged and dry hole well is Well A.K. 1 King Development Company (API 0410700223)[25] located 0.9 miles southwest of the Project. No known mineral resources are located within the Project area. Therefore, construction of the Project would not result in the loss of availability of a known mineral resource since no known mineral resources have been identified in this area. There would be no impact. No mitigation measures are warranted.

[25] (California Department of Conservation Well Finder 2020)

4.13 NOISE

Table 4-21: Noise Impacts

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

4.13.1 Baseline Conditions

The ambient noise levels experienced throughout Lindsay are characteristic of an urbanized area containing a combination of residential, commercial, industrial land uses, and the circulation system. The Project site is surrounded by commercial, residential, and open space. The closest sensitive receptors to the Project site are the residences to the north across W. Mariposa Street, as close as 80 feet. Jefferson Elementary School is located approximately 0.17 miles southeast of the Project. The primary existing noise source contributing to ambient noise in the Project area derives from traffic along adjacent residential roads and SR 65, which is located approximately 0.12 miles to the west.

4.13.2 Impact Analysis

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

Less than Significant Impact. According to the Lindsay General Plan, exterior noise levels in the range of 50-60 dB CNEL (Community Noise Exposure Level) are generally considered to be acceptable for residential land uses.[26] Operation of the Project would be passive in nature; however, there would be noise generated from the existing well pump. It is not anticipated that pump noise would be significant due to the existing ambient noise in the area. Project construction would generate temporary noise,

[26] (Grunwald & Associates 1989)

mostly from trucks and the construction activity itself. Table 4-22 below describes the typical construction noise levels of various construction equipment.

Table 4-22: Typical Construction Noise Levels

Equipment	50 feet from Source (dBA L_{eq})	100 feet from Source (dBA L_{eq})	200 feet from Source (dBA L_{eq})	300 feet from Source (dBA L_{eq})
Air Compressor	80	74	68	64
Backhoe	80	74	68	64
Concrete Mixer	85	79	73	69
Grader	85	79	73	69
Jack Hammer	88	82	76	72
Loader	80	74	68	64
Paver	85	79	73	69
Roller	85	79	73	69
Saw	76	70	64	60
Scraper	85	79	73	69
Truck	84	78	72	68

Source: Noise level at 50 feet from (John A. Volpe National Transportation Systems Center 2018)
Note: Noise Levels at 100 feet, 200 feet, and 300 feet were extrapolated using a 6 dBA attenuation rate per doubling of distance. Each noise level assumes the piece of equipment is operating at full power for the expected duration to complete the construction activity. The duration varies widely between each piece of equipment. Noise levels also depend on the model and year of the equipment used.

There are existing residences that are located as close as 80 feet from the Project. While construction would be temporary, lasting only six months, even with attenuation rates, noise generated from construction equipment could exceed 50-60 dB CNEL, as outlined in Lindsay's General Plan. To ensure these Project-related increases in ambient noise would not exceed applicable noise and land use standards, the noise reducing BMPs pursuant to Mitigation Measures NOI-1 and NOI-2 will be implemented. With the inclusion of said mitigation, impacts would be less than significant with mitigation incorporated.

Mitigation

NOI-1 The City shall ensure the construction contractor implement the following construction noise reducing measures:

- The construction contractor shall ensure that all noise producing construction activities, including warming-up or servicing equipment and any preparation for construction, shall be limited to the hours between 7:00 a.m. and 6:00 p.m. The construction contractor shall locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise sensitive receptors nearest the project site during construction.
- The construction contractor shall ensure that all equipment shall have sound control devices that are no less effective than those provided on the original equipment. Further, pavement breakers and jackhammers shall also be equipped with acoustically attenuating shields or shrouds recommended by the manufacturers thereof. In lieu of or in the absence of manufacturers' recommendations, the Director of Public Works shall have the authority to prescribe such means of accomplishing maximum noise attenuation as deemed to be in the public interest, considering the available technology and economic feasibility.

-

NOI-2 The City shall ensure that equipment and trucks used for construction of the Project utilize the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds).

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

Less than Significant Impact. Operation of the Project would not include any activities that would generate significant levels of vibration. Therefore, it is not anticipated that Project operation would expose the nearest sensitive receptor to vibration levels that would result in annoyance. For this reason, the following analysis of the Project's vibration impacts evaluates only the effects of on-site construction activities.

There are no federal or State standards that address construction noise or vibration. Additionally, the city of Lindsay or Tulare County do not have regulations that define acceptable levels of vibration. However, the Federal Transit Administration (FTA) publication concerning noise and vibration impact assessment from transit activities has vibration standards suggestions. Although the FTA guidelines are to be applied to transit activities and construction, they may be reasonably applied to the assessment of the potential for annoyance or structural damage resulting from other activities. To prevent vibration annoyance in residences, a level of 80 VdB (vibration velocity level in dB) or less is suggested when there are fewer than 70 vibration events per day. A level of 100 VdB or less is suggested by the FTA guidelines to prevent damage to fragile buildings. Table 4-23 describes the typical construction equipment vibration levels. While these construction-related activities would result in ground borne vibration, such groundborne noise or vibration, would attenuate rapidly from the source and would not be generally perceptible outside of the construction-related areas. In addition, there would not be any vibrational impacts from operation and maintenance activities.

Table 4-23: Typical Construction Equipment Vibration Sources Levels

Typical Construction Equipment Vibration Sources Levels		
Equipment	PPV at 25 ft, in/sec	Approximate Lv* at 25 ft
Large bulldozer	0.089	87
Caisson drilling	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58
*RMS velocity in decibels, VdB re 1 micro-in/sec Source: (John A. Volpe National Transportation Systems Center 2018)		

Construction-related activities in general can have the potential to create ground borne vibrations. However, based on the soil types found in the general Project sites, it is unlikely that any blasting or pile-driving would be required in connection with construction of the Project. Therefore, the potential for ground borne vibrations to occur as part of construction-related activities of the Project would not be significant. Additionally, the operation of the Project would not contain any activities that would create excessive ground borne vibrations. The Project would not result in the generation of excessive ground borne vibration or ground borne noise levels. Therefore, impacts would be less than significant. No mitigation measures are required.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project site is not located in an Airport Land Use Compatibility Plan.[27] Eckert Field is located approximately 5.4 miles southeast of the Project. The Porterville Municipal Airport is located approximately 13.9 miles south of the project. The Fresno Yosemite International Airport is located approximately 63.7 miles northwest of the p\Project. As the Project is not located within an airport land use plan or two miles of an airport, there would be no impact. No mitigation measures are required.

[27] (Aries Consultants Ltd. 2012)

4.14 POPULATION AND HOUSING

Table 4-24: Population and Housing Impacts

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

4.14.1 Baseline Conditions

According to the 2020 Census, the city of Lindsay has an estimated population of 12,659.[28] Additionally, it is estimated that Lindsay contains approximately 3,627 households.[29] The Project site is located in the western region of the City. Lindsay is located approximately 11 miles east of Tulare and seven miles north of Porterville. As seen in other cities and communities throughout the Central Valley in California, Lindsay is an agricultural community that is surrounded by farmland and open space.

4.14.2 Impact Analysis

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant Impact. The Project proposes upgrades to one of the City's domestic water wells to assist in providing clean drinking water to its residents. The Feasibility Study prepared in 2023 identified an immediate supply deficit with the deficit worsening as the City's population grows. Although the City mostly relies on surface water via the FKC, the reservicing of Well 11 is needed to supplement demand as its FKC water allocation varies depending on the hydrological year. In times of drought, the City is more reliant on groundwater due to the limit on surface water availability. The Project does not propose to amend the General Plan or its land uses and thus would not result in unplanned growth. Impacts would be less than significant. No mitigation measures are required.

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

[28] (United States Census Bureau 2000)
[29] Ibid.

No Impact. The Project would not result in the displacement of existing people or housing. Therefore, there would be no impact. No mitigation measures are required.

4.15 PUBLIC SERVICES

Table 4-25: Public Services

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

4.15.1 Baseline Conditions

Fire Protection: The Project site would be served by the Lindsay Fire Department. The closest fire station is the Lindsay Fire Department, located approximately 0.78 miles east.

Police Protection: Police protection is provided by the Lindsay Police Department. The closest police station is the Lindsay Police Department Station, located approximately 0.78 miles east.

Schools: Jefferson Elementary School is the nearest school to the Project, located approximately 0.17 miles southeast.

Parks: The nearest park to the Project site is Olive Bowl Park, located approximately 0.4 miles southeast.

Landfills: The Project would utilize the CleanHarbors disposal site. The site is located in Buttonwillow, CA, which is approximately 87 miles southwest.

4.15.2 Impact Analysis

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

i. Fire Protection:

ii. Police Protection:

iii. Schools:

iv. Parks:

v. Other public facilities:

a-i – a-v) No Impact. The Project would not require new or altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for public services. The Project involves the alteration of existing water treatment facilities to assist with providing clean drinking water to the city of Lindsay. Currently, Well 11 is on standby due to high levels of perchlorate and nitrate and implementation of the Project would remedy the contamination issue and bring Well 11 back into service. The Project would not result in unplanned population growth as Well 11 would support the existing and planned population. The Project would not send brine to a governmental landfill facility. The Project would send brine to CleanHarbors, which is a private landfill facility. CleanHarbors has determined and informed the Project proponent that they have capacity to serve the Project. There would be no impact to the listed public services. No mitigation measures are required.

4.16 RECREATION

Table 4-26: Recreation Impacts

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

4.16.1 Baseline Conditions

According the City's General Plan, the City has about 52 acres of developed park land.[30] With its 52 acres, the City maintains a ratio of 6.34 acres of parkland per 1,000 people which exceeds the Quimby Act goal of 5.0 acres per 1,000. The closest park to the Project site is Olive Bowl Park, located approximately 0.4 miles southeast.

4.16.2 Impact Analysis

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The Project is upgrading and remediating an existing facility. Project features would not increase the use or demand of any existing neighborhood park, regional park, or any other recreational facilities of any kind. Population growth is not anticipated or associated with the Project. Therefore, there would be no impact. No mitigation measures are required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The Project would not include recreational facilities, nor would it propose the expansion of any existing recreational facilities. As mentioned, the Project's objective is to allow the City to provide its residents with a clean, reliable source of water. There would be no impact. No mitigation measures are required.

[30] (Grunwald & Associates 1989)

4.17 TRANSPORTATION

Table 4-27: Transportation Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) 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?	☐	☐	☒	☐

4.17.1 Baseline Conditions

The Project site is located on the south side of west Mariposa Street approximately 0.12 miles east of SR 65. The closest airstrip to the Project site is Eckert Field which is located approximately 5.4 miles southeast of the Project. The Porterville Municipal Airport is located approximately 13.9 miles south of the Project. The Fresno Yosemite International Airport is located approximately 63.7 miles northwest of the Project

4.17.2 Impact Analysis

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

Less than Significant Impact. The Project includes water treatment at the existing Well 11 site. Construction traffic associated with the Project would be minimal and temporary, lasting approximately six (6) months. Road closures and detours are not anticipated as part of construction. The Project would would provide a new access road on the Project site to accommodate the brine hauling truck. The new path would comply with City requirements including roadway width, grade, and materials. Operational traffic would be minimal. Operational traffic would consist of maintenance which is already taking place at the well site. Additional operational traffic due to brine hauling would utilize existing roads and the proposed access road. No changes would be made to the existing circulation system. There would not be a significant adverse effect to existing roadways in the area.

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

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

Less than Significant Impact. Section 15064.3 of the State CEQA Guidelines establishes specific considerations for evaluating a project's transportation impacts. The State CEQA Guidelines identify vehicle miles traveled (VMT), which is defined as the amount and distance of automobile travel attributable to a project, as the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of a project on transit and nonmotorized travel.

Construction of the Project would last approximately six (6) months and would use existing construction crews. Operation of the Project assumes the brine delivery truck is a medium heavy duty vehicle weighing approximately seven tons. It is estimated brine would hauled off site 183 times per year (approximately one trip every other day). According to the Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA, the term "automobile" refers to on-road passenger vehicles, specifically cars and light-duty trucks.[31] The brine delivery truck is not subject to Section 15064.3 of the State CEQA Guidelines and would not add a substantial amount of VMT to the Project. Therefore, impacts would be less than significant. No mitigation measures are required.

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

No Impact. While construction equipment would be transported to the Project site using hauling trucks, Project area roadways are suitable and capable of transporting of said equipment; therefore, there would be no impact. No mitigation measures are required.

d) Would the project result in inadequate emergency access?

Less than Significant Impact. The Project would not propose new roadway design features or permanent alterations to roadways. Any potential disturbances to roadways during construction would be temporary and repaired to baseline conditions. No road closures or detours are anticipated as part of the construction phase of the Project. The operational phase of the Project would have no effect on roadways or emergency access. Therefore, overall potential Project-related impacts to emergency access on local roadways would be considered less than significant. No mitigation measures are required.

[31] (Governor's Office of Planning and Research (OPR) 2018)

4.18 TRIBAL CULTURAL RESOURCES

Table 4-28: Tribal Cultural Resources Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a 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 the 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.	☐	☒	☐	☐

4.18.1 Baseline Conditions

The Project's APE is in the Southern Valley Yokuts ethnographic territory of the San Joaquin Valley. Within California, the Yokuts were generally divided into three major groups, the Northern Valley Yokuts, the Southern Valley Yokuts, and the Foothill Yokuts. The Yokuts are a sub-group of the Penutian language that covers much of coastal and central California and Oregon. The Tule River Indian Tribe and the Wuksache Indian Tribe, which are also affiliated with the Project area, are considered a part of the Yokuts people.

Native American Outreach

A SLF search from the NAHC was sent on January 3, 2024. The NAHC responded on January 11, 2024, via letter indicating negative results of the database search. The NAHC supplied a list of Native American representatives to contact for information or knowledge of cultural resources in the APE and the surrounding area. The following Native American organizations/individuals were contacted from the list provided by NAHC below:

1. Cultural Specialist I Nichole Escalon of the Santa Rosa Rancheria Tachi Yokut Tribe

2. Tribal Historic Preservation Officer Shana Powers of the Santa Rosa Rancheria Tachi Tribe
3. Cultural Specialist II Samantha McCarty of the Santa Rosa Rancheria Tachi Yokut Tribe
4. Chairperson Neil Peyron of the Tule River Indian Tribe
5. Environmental Department Director Kerri Vera of the Tule River Tribe
6. Tribal Archaeologist Joey Garfield of the Tule River Indian Tribe
7. Chairperson Kenneth Woodrow of the Wuksache Indian Tribe/Eshom Valley Band

To date, no responses have been received from the above-listed tribes. Furthermore, as discussed in Section 2.1.8, the city of Lindsay has not received any written correspondence from a Tribe pursuant to Public Resources Code Section 21080.3.1 requesting notification of proposed project.

4.18.2 Impact Assessment

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 the 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.

a-i – a-ii) Less than Significant Impact with Mitigation Incorporated. A search of the NAHC Sacred Lands File was completed for the Project APE. Results of this file search were negative, and no tribal cultural resources were identified in the Project APE. A records search was also conducted at the SSJVIC. The search results determined that tribal cultural resources were not discovered within the Project APE. Although there is little or no chance the Project would cause a substantial adverse change to the significance of a tribal cultural resource as defined, mitigation measures **CUL-1** and **CUL-2,** described in Section 4.5.2 are recommended in the event cultural materials or human remains are unearthed during excavation or construction.

Mitigation

See **CUL-1** and **CUL-2** in Section 4.5.2

4.19 UTILITIES AND SERVICE SYSTEMS

Table 4-29: Utilities and Service Systems Impacts

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

4.19.1 Baseline Conditions

The Project site is located at the western end of the City and contains a stormwater basin and the existing Well 11.

Water Supply

The Project is located within the Kaweah Subbasin of the San Joaquin Valley Groundwater Basin.[32] Groundwater overdraft and groundwater depletion are recurring problems in Tulare County. Measures for ensuring the continued availability of groundwater have been identified and planned in several areas of the County. The measures include groundwater conservation and recharge, and supplementing or replacing groundwater sources for irrigation with surface water. The Kaweah Subbasin contains approximately 7,474 wells, of which approximately 224 are water supply wells. Groundwater accounts for over 90 percent of the land's water supply. [33]

[32] (Groundwater Exchange 2023)
[33] (Groundwater Exchange 2023)

Wastewater Collection and Treatment

The city of Lindsay operates and maintains a wastewater distribution system and wastewater treatment plant.

Landfills

The Project would utilize the CleanHarbors disposal site. The site is located in Buttonwillow, CA, which is approximately 87 miles southwest.

4.19.2 Impact Analysis

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

Less than Significant Impact. The Project would construct upgrades to water treatment facilities, which would connect to the City's currently out of service well, Well 11. The proposed facilities would bring Well 11 back into service and would supply the City with additional water supply to meet current and future demand. Implementation of the Project has been analyzed throughout this document and impacts to the environment, overall, would be less than significant with the inclusion of various regulatory compliance requirements and mitigation measures. No mitigation measures are required.

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

Less than Significant Impact. The Project would construct upgrades to water treatment facilities, which would connect to the City's currently out of service well, Well 11. Without treatment of the nitrate and perchlorate contamination at Well 11, any use of the well would result in a violation of two primary drinking water standards, both of which have the potential to result in acute health effects. Reactivating Well 11 is necessary to meet system demands. Although the Project is expected to add to the City's available water supply, the well would not increase current water demand. The Project itself would not require water to support its construction or implementation. Impacts would be less than significant. No mitigation measures are required.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The Project proposes to construct water treatment facility upgrades to remediate the City's Well 11. Implementation of the Project would not increase demand for wastewater treatment facilities or services, but would rather bring Well 11. Therefore, there would be no impact. No mitigation measures are required.

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

No Impact. Minimal solid waste would be generated by the Project during construction. Construction contractors are generally required to remove all solid waste generated during construction. During operation, the Project would not generate solid waste. Therefore, there would be no impact. No mitigation measures are required.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. Any solid waste generated during Project construction would be required to comply with all applicable federal, State, and local statues and regulations related to solid waste removal and proper disposal. There would be no impact. No mitigation measures are required.

4.20 WILDFIRE

Table 4-30: Wildfire Impacts

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

4.20.1 Baseline Conditions

The Project is located in an agriculturally active area of the City that is surrounded all around by open space and farmland. According to the California Department of Forestry and Fire Protection (CalFire), the Project is not located in a State Responsibility Area (SRA) or a Very High Fire Hazard Severity Zone. The nearest SRA is located approximately 2.6 miles to the east of the Project. The nearest Very High Fire Hazard Severity Zone is located approximately 14.5 miles east of the Project.[34]

4.20.2 Impact Analysis

a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

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

[34] (California Department of Forestry and Fire Protection 2022) (ArcGIS 2023)

c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

a-d) No Impact. The Project area is located in a section of Tulare County that has not been designated as either a Very High Fire Hazard Severity Zone or an SRA. Therefore, further analysis is not required and there would be no impact. No mitigation measures are required.

4.21 CEQA MANDATORY FINDINGS OF SIGNIFICANCE

Table 4-31: CEQA Mandatory Findings of Significance

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

4.21.1 Statement of Findings

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?

Less than Significant Impact with Mitigation Incorporated. The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the Project, with incorporation of mitigation measures, will have a less than significant effect on the environment. The potential for impacts to biological resources, cultural resources, geology and soils, and tribal cultural resources from the implementation of the Project will be less than significant with the incorporation of the mitigation measures discussed in Chapter 5 Mitigation, Monitoring, and Reporting Program. Mitigation measures related to Biological Resources include BIO-1 through BIO-4, which help to mitigate potential impacts to protected bird species. Mitigation measures related to Cultural Resources and Tribal Cultural Resources include CUL-1 and CUL-2, which provide standard protocol in the event that unidentified archaeological resources and human remains are uncovered during construction. Mitigation Measure GEO-1 is included to mitigate impacts to paleontological resources. GEO-1 requires a Worker Environmental Awareness Program training prior to construction so that construction personnel are informed of the standard protocol upon discovery of paleontological resources. Accordingly, the Project would involve no potential for significant impacts through the degradation of the quality of the environment, the reduction in the

habitat or population of fish or wildlife, including endangered plants or animals, the elimination of a plant or animal community or example of a major period 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)?

Less than Significant Impact with Mitigation Incorporated. CEQA Guidelines Section 15064(i) States that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. The Project would construct perchlorate and nitrate treatment facilities at the existing City Well 11 site to return the well back into service. The Project is intended to improve water quality and bolster the water supply in the city of Lindsay. The Project would not result in direct or indirect population growth. Furthermore, potentially significant impacts of the Project would be reduced to a less than significant level following implementation of mitigation measures **BIO-1** through **BIO-4**, **CUL-1** and **CUL-2.** Presumably, previously completed projects have also implemented mitigation as necessary. Accordingly, the Project would not otherwise combine with impacts of related development to add considerably to any cumulative impacts in the Project region. With the inclusion of said mitigation, the Project would not have impacts that are individually limited but cumulatively considerable. Therefore, the Project would have a less than cumulatively considerable impact with implementation of mitigation measures.

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

Less than Significant Impact. The Project proposes to construct water treatment facility upgrades to remediate the City's Well 11. The Project in and of itself would not create a significant hazard to the public or the environment. On the contrary, implementation of the Project would resolve water quality issues. Construction-related air quality/dust exposure impacts could occur temporarily as a result of Project construction. However, implementation of basic regulatory requirements identified in this IS/MND would ensure that impacts are less than significant. Furthermore, the Project includes mitigation measures **BIO-1** through **BIO-4** and **CUL-1** and **CUL-2** to reduce impacts that could have potentially been significant if it were not for the prescribed mitigation. Therefore, the Project would not have any direct or indirect adverse impacts on humans. This impact would be less than significant

CHAPTER 5 MITIGATION, MONITORING, AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Project. The MMRP lists mitigation measures recommended in the IS/MND for the Project and identifies monitoring and reporting requirements.

Table 5-1: Mitigation, Monitoring, and Reporting Program presents the mitigation measures identified for the Project. Each mitigation measure is numbered with a symbol indicating the topical section to which it pertains, a hyphen, and the impact number. For example, AIR-2 would be the second mitigation measure identified in the Air Quality analysis of the IS/MND.

The first column of Table 5-1: Mitigation, Monitoring, and Reporting Program identifies the mitigation measure. The second column, entitled "When Monitoring is to Occur," identifies the time the mitigation measure should be initiated. The third column, "Frequency of Monitoring," identifies the frequency of the monitoring of the mitigation measure. The fourth column, "Agency Responsible for Monitoring," names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last columns will be used by the Lead and Responsible Agencies to ensure that individual mitigation measures have been complied with and monitored.

Table 5-1: Mitigation, Monitoring, and Reporting Program

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
Biological Resources						
Project-Related Mortality and/or Nest Abandonment of Migratory Birds and Raptors, Including Swainson's Hawk						
BIO-1	Prior to filling the brine pond, deterrents shall be put in place to discourage birds from using the pond. This could include a combination of visual, auditory, and physical deterrents for birds to minimize the potential for protected birds to utilize the brine pond. Examples include deterrents such as noise makers, ribbons, lasers, motion-triggered sprinklers, decoys, and others.	Prior to Project operation	Once, as determined by qualified biologist	City of Lindsay with the assistance of a qualified biologist	Report	
BIO-2	The Project's construction activities shall occur, if feasible, between September 16 and January 31 (outside of the nesting bird season) to avoid impacts to nesting birds.	September 16 to January 31	Once, as determined by qualified biologist	City of Lindsay with the assistance of a qualified biologist	Report	
BIO-3	If Project construction activities must occur within the nesting bird season (February 1 to August 31), a qualified biologist shall conduct a pre-construction survey for active nests within seven (7) calendar days prior to the start of construction. The survey shall include a one-time take avoidance survey for Swainson's hawk and other birds and raptors. The survey shall be completed within the Project site, and up to 100 feet outside of the Project site for nesting migratory birds, up to 500 feet outside of the project site for nesting raptors, and up to 0.5-mile outside of the project site for nesting Swainson's hawks. Raptor nests shall be considered "active" upon the nest-building stage. The survey shall not be completed between April 21 to June 10 due to the difficulty of identifying Swainson's hawk nests during this time of year. If no active nests are observed, no further mitigation is required.	Seven days prior to construction between February 1 to August 31	Once, as determined by qualified biologist	City of Lindsay with the assistance of a qualified biologist	Report	
BIO-4	If discovery of any active nests or breeding colonies occurs within 50 feet of a work area, a qualified biologist shall determine appropriate avoidance	Upon discovery of active nests or breeding colonies	Once, as determined by qualified biologist	City of Lindsay	Report	

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
	buffer distances based on applicable CDFW and/or USFWS guidelines, the biology of the species, conditions of the nest(s), and the level of project disturbance. If necessary, avoidance buffers shall be identified and shall be maintained until the biologist has determined that the nestlings have fledged.					
Cultural Resources						
CUL-1	In the event that previously unidentified archaeological remains are encountered during development or ground-moving activities in the APE, all work shall be halted until a qualified archaeologist can identify the discovery and assess its significance. In the event of accidental discovery of unidentified archaeological remains during development or ground-moving activities in the APE, all work shall be halted in the immediate vicinity until a qualified archaeologist can identify the discovery and assess its significance.	During construction	Daily during construction activities	City of Lindsay		
CUL-2	If human remains are uncovered during construction, the Tulare County Coroner shall be notified to investigate the remains and arrange proper treatment and disposition. If the remains are identified on the basis of archaeological context, age, cultural associations, or biological traits to be those of a Native American, California Health and Safety Code 7050.5 and PRC 5097.98 require that the coroner notify the NAHC within 24 hours of discovery. The NAHC will then identify the Most Likely Descendants who will be afforded an opportunity to make recommendations regarding the treatment and disposition of the remains.	During construction	Daily during construction activities	City of Lindsay		
Noise						
NOI-1	The City shall ensure the construction contractor implement the following construction noise reducing measures: • The construction contractor shall ensure that all noise producing construction	During construction	Daily during construction activities	City of Lindsay		

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
	activities, including warming-up or servicing equipment and any preparation for construction, shall be limited to the hours between 7:00 a.m. and 6:00 p.m. The construction contractor shall locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise sensitive receptors nearest the project site during construction. • The construction contractor shall ensure that all equipment shall have sound control devices that are no less effective than those provided on the original equipment. Further, pavement breakers and jackhammers shall also be equipped with acoustically attenuating shields or shrouds recommended by the manufacturers thereof. In lieu of or in the absence of manufacturers' recommendations, the Director of Public Works shall have the authority to prescribe such means of accomplishing maximum noise attenuation as deemed to be in the public interest, considering the available technology and economic feasibility.					
NOI-2	The City shall ensure that equipment and trucks used for construction of the project utilize the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds).	During construction	Daily during construction activities	City of Lindsay		
Tribal Cultural Resources						
See **CUL-1** and **CUL-2** in Section 4.5.2.						

CHAPTER 6 REFERENCES

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Appendix A: CalEEMod Output Files

Well 11 Treatment Project Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Well 11 Treatment Project
Construction Start Date	1/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.10
Precipitation (days)	25.6
Location	36.2060565877142, -119.10367032752752
County	Tulare
City	Lindsay
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2725
EDFZ	9
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.25

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Light Industry	1.00	1000sqft	0.02	1,000	0.00	—	—	—

Other Non-Asphalt Surfaces	2.75	Acre	2.75	0.00	0.00	—	—	—

2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.49	1.24	10.6	11.9	0.02	0.40	< 0.005	0.41	0.37	< 0.005	0.37	—	2,207	2,207	0.09	0.02	0.02	2,215
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.85	1.56	14.1	14.9	0.03	0.64	7.14	7.78	0.59	3.44	4.03	—	2,757	2,757	0.11	0.02	0.01	2,767
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.94	0.78	6.71	7.49	0.01	0.26	0.13	0.39	0.24	0.06	0.30	—	1,394	1,394	0.06	0.01	0.01	1,399
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.17	0.14	1.23	1.37	< 0.005	0.05	0.02	0.07	0.04	0.01	0.05	—	231	231	0.01	< 0.005	< 0.005	232

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	109	109	< 0.005	0.02	0.35	114
Area	0.05	0.05	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.3	29.3	< 0.005	< 0.005	—	29.4

Water	—	—	—	—	—	—	—	—	—	—	—	0.44	1.33	1.77	0.05	< 0.005	—	3.23
Waste	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Total	0.05	0.05	0.10	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	1.11	140	141	0.12	0.02	0.61	150
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	109	109	< 0.005	0.02	0.01	114
Area	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.3	29.3	< 0.005	< 0.005	—	29.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.44	1.33	1.77	0.05	< 0.005	—	3.23
Waste	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Total	0.05	0.04	0.11	0.03	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	1.11	140	141	0.12	0.02	0.27	149
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	< 0.005	0.02	0.15	114
Area	0.05	0.04	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.09	0.09	< 0.005	< 0.005	—	0.09
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.3	29.3	< 0.005	< 0.005	—	29.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.44	1.33	1.77	0.05	< 0.005	—	3.23
Waste	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Total	0.05	0.05	0.10	0.06	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	1.11	140	141	0.12	0.02	0.41	149
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	18.9
Area	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.01	0.01	< 0.005	< 0.005	—	0.01
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.84	4.84	< 0.005	< 0.005	—	4.86
Water	—	—	—	—	—	—	—	—	—	—	—	0.07	0.22	0.29	0.01	< 0.005	—	0.54
Waste	—	—	—	—	—	—	—	—	—	—	—	0.11	0.00	0.11	0.01	0.00	—	0.39

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	0.01	0.01	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	0.18	23.2	23.4	0.02	< 0.005	0.07	24.7

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.42	1.19	10.9	11.0	0.03	0.47	—	0.47	0.43	—	0.43	—	2,717	2,717	0.11	0.02	—	2,726
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.17	0.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.3	22.3	< 0.005	< 0.005	—	22.4
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.70	3.70	< 0.005	< 0.005	—	3.71
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.28	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.0	40.0	< 0.005	< 0.005	< 0.005	40.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.35
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.80	1.51	14.1	14.5	0.02	0.64	—	0.64	0.59	—	0.59	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.23	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	40.4	40.4	< 0.005	< 0.005	—	40.5
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.68	6.68	< 0.005	< 0.005	—	6.70
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.37	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	53.4	53.4	< 0.005	< 0.005	0.01	54.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.91	0.91	< 0.005	< 0.005	< 0.005	0.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.15	0.15	< 0.005	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.49	1.24	10.6	11.9	0.02	0.40	—	0.40	0.37	—	0.37	—	2,201	2,201	0.09	0.02	—	2,209
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.49	1.24	10.6	11.9	0.02	0.40	—	0.40	0.37	—	0.37	—	2,201	2,201	0.09	0.02	—	2,209
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90	0.75	6.39	7.15	0.01	0.24	—	0.24	0.22	—	0.22	—	1,327	1,327	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.14	1.17	1.30	< 0.005	0.04	—	0.04	0.04	—	0.04	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.53	2.53	< 0.005	< 0.005	0.01	2.58
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.52	3.52	< 0.005	< 0.005	0.01	3.69
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.24	2.24	< 0.005	< 0.005	< 0.005	2.28
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.53	3.53	< 0.005	< 0.005	< 0.005	3.68
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.40	1.40	< 0.005	< 0.005	< 0.005	1.43
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.12	2.12	< 0.005	< 0.005	< 0.005	2.22
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.23	0.23	< 0.005	< 0.005	< 0.005	0.24
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.35	0.35	< 0.005	< 0.005	< 0.005	0.37
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	14.9	14.9	< 0.005	< 0.005	—	14.9
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	14.9	14.9	< 0.005	< 0.005	—	14.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	14.9	14.9	< 0.005	< 0.005	—	14.9
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	14.9	14.9	< 0.005	< 0.005	—	14.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	2.46	2.46	< 0.005	< 0.005	—	2.47
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2.46	2.46	< 0.005	< 0.005	—	2.47

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.4	14.4	< 0.005	< 0.005	—	14.4
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.4	14.4	< 0.005	< 0.005	—	14.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.4	14.4	< 0.005	< 0.005	—	14.4
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.4	14.4	< 0.005	< 0.005	—	14.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.39	2.39	< 0.005	< 0.005	—	2.39
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.39	2.39	< 0.005	< 0.005	—	2.39

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18
Total	0.05	0.05	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coating	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.01	0.01	< 0.005	< 0.005	—	0.01
Total	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.01	0.01	< 0.005	< 0.005	—	0.01

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.44	1.33	1.77	0.05	< 0.005	—	3.23
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.44	1.33	1.77	0.05	< 0.005	—	3.23
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.44	1.33	1.77	0.05	< 0.005	—	3.23
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.44	1.33	1.77	0.05	< 0.005	—	3.23

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.07	0.22	0.29	0.01	< 0.005	—	0.54
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.07	0.22	0.29	0.01	< 0.005	—	0.54

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.11	0.00	0.11	0.01	0.00	—	0.39
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.11	0.00	0.11	0.01	0.00	—	0.39

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/30/2025	2/3/2025	5.00	3.00	—
Grading	Grading	2/4/2025	2/12/2025	5.00	6.00	—
Building Construction	Building Construction	2/13/2025	12/18/2025	5.00	220	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	7.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	6.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

Building Construction	—	—	—	—
Building Construction	Worker	0.42	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	0.16	6.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	4.50	0.00	—
Grading	—	—	6.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Light Industry	0.00	0%
Other Non-Asphalt Surfaces	2.75	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	0.50	0.50	0.50	183	43.5	43.5	43.5	15,878

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	1,500	500	7,187

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	10,189	532	0.0330	0.0040	44,953
Other Non-Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	231,250	0.00
Other Non-Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	1.24	—
Other Non-Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	No demolition of structures, paving, or architectural coatings
Operations: Fleet Mix	Assumes brine delivery truck is a Medium Heavy Duty vehicle (7+ tons).

Appendix B: Biological Evaluation

CITY OF LINDSAY

LINDSAY WELL 11 TREATMENT PROJECT BIOLOGICAL EVALUATION

TULARE COUNTY, CALIFORNIA
SEPTEMBER 2024

PREPARED FOR:
City of Lindsay
Tulare County

PREPARED BY:
Provost & Pritchard Consulting Group
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Report Prepared for:

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Report Prepared by:

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ACRONYMS AND ABBREVIATIONS

BMPs ..... Best Management Practices
CDFW..... California Department of Fish and Wildlife
CEQA ..... California Environmental Quality Act
CNDDB..... California Natural Diversity Database
CNPS..... California Native Plant Society
County .....Tulare County
ERM .....Environmental Resource Management
IPaC ..... U.S. Fish and Wildlife Service's Information for Planning and Consultation system
MBTA..... Migratory Bird Treaty Act
NEPA..... National Environmental Policy Act
NRCS..... Natural Resources Conservation Service
Project ..... Lindsay Well 11 Treatment Project
Provost & Pritchard.....Provost & Pritchard Consulting Group
RWQCB.....Regional Water Quality Control Board
SWPPP ..... Storm Water Pollution Prevention Plan
SWRCB..... State Water Resources Control Board
USACE..... United States Army Corps of Engineers
USC ..... United States Code
USFWS..... United States Fish and Wildlife Service
USGS..... United States Geological Survey
EPA ..... United States Environmental Protection Agency
WR .....Water Resources

1 INTRODUCTION

The following Biological Evaluation report, prepared by Provost & Pritchard Consulting Group (Provost & Pritchard) in compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), includes descriptions of the biological resources present or with potential to occur within the proposed Lindsay Well 11 Treatment Project (or "project"), potential project-related impacts or effects to those resources, and mitigation measures to reduce these impacts and effects to a less-than-significant level under CEQA and NEPA.

1.1 PROJECT DESCRIPTION

The approximately 12.5-acre project site (or "site") is located south of Mariposa Street, west of Westmore Court, north of Hermosa Street, and east of State Route 65 in the western portion of the City of Lindsay, Tulare County (County), California (see Figure 1 and Figure 2). The site is along the east side of the San Joaquin Valley and includes dirt access roads, a stormwater basin, and sparsely vegetated and cultivated land, and is surrounded by developed and vacant residential and commercial lots, a school, and paved roads.

The project includes the construction of lined brine evaporation ponds along the west side of the project site, a treatment plant along the north side of the existing stormwater basin, and a pipeline to connect the existing well to the treatment plant and brine evaporation ponds. The project will not be impacting the existing stormwater basin and associated infrastructure. The new pond basins would be used for brine generated from treating water collected from the well. The water in the brine ponds will be saturated sodium chloride brine (approximately 25% NaCl) with elevated levels of nitrate and potentially elevated levels of arsenic. The ponds will include polyethylene lining to prevent migration of the brine into groundwater. The current existing stormwater basin will continue to serve as a stormwater basin.

1.2 REPORT OBJECTIVES

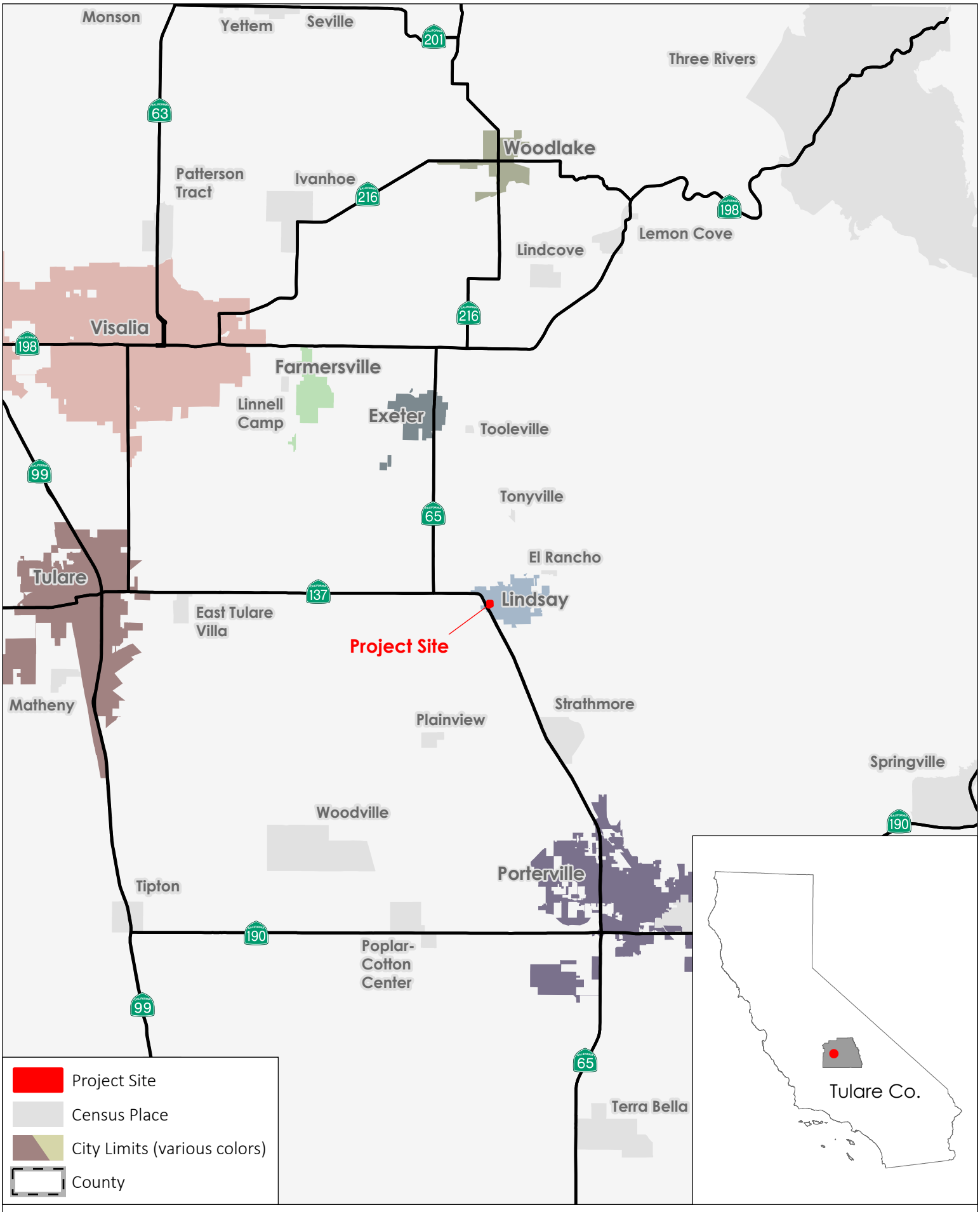
Construction activities such as those proposed by the project could potentially modify biological resources or habitats that are crucial for sensitive plant and wildlife species. In cases such as these, development may be regulated by state or federal agencies, and/or addressed by local regulatory agencies.
This report addresses issues related to the following:

- The presence of sensitive biological resources on the site, or with the potential to occur on the site.
- The federal, state, and local regulations regarding these resources.
- Mitigation measures that may be required to reduce the magnitude of anticipated impacts and/or comply with permit requirements of state and federal resource agencies.

Therefore, the objectives of this report are to:

- Summarize all site-specific information related to existing biological resources.
- Make reasonable inferences about the biological resources that could occur on the site based on habitat suitability and the proximity of the site to a species' known range.
- Summarize all state and federal natural resource protection laws that may be relevant to implementation of the project.
- Identify and discuss project impacts and effects to biological resources likely to occur onsite within the context of CEQA, NEPA, and/or state or federal laws.
- Identify and prescribe a set of avoidance and mitigation measures that would reduce impacts to a less-than-significant level (as identified by CEQA) or avoid and minimize effects (as identified by NEPA) and

are generally consistent with recommendations of the resource agencies for affected biological resources.



Regional Vicinity Map

Self Help Enterprises- Lindsay Well 11 Treatment

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Fig. 1 Page 1-3

0 250 500

Feet

Aerial Map

Self Help Enterprises- Lindsay Well 11 Treatment

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Fig. 2 Page 1-4

1.3 STUDY METHODOLOGY

A reconnaissance-level field survey of the project site was conducted on December 4, 2023, by Provost & Pritchard biologist, Jairo Perez. The survey consisted of walking and driving throughout accessible areas of the project site while identifying and noting land uses, biological habitats and communities, and plant and animal species encountered, and assessing habitats that could be suitable for various rare or protected plant and animal species. Inaccessible areas were visually surveyed using binoculars. Representative photographs of the site were taken and are presented in Appendix A.

Mr. Perez then utilized the results of the field survey to analyze potential project-related impacts to biological resources based on the resources known to occur or with potential to occur within the project site. Sources of information used in preparation of this analysis included: the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB; see Appendix B for the species list) and California Wildlife Habitat Relationships (CWHR) database; California Native Plant Society's (CNPS) Online Inventory of Rare and Endangered Vascular Plants of California; CalFlora's online database of California native plants; Jepson Herbarium's online database (i.e., Jepson eFlora); United States Fish and Wildlife Service's (USFWS) Environmental Conservation Online System, Information for Planning and Consultation (IPaC; see Appendix C for the species list) system, and National Wetlands Inventory (NWI); iNaturalist; NatureServe Explorer's online database; United States Department of Agriculture Natural Resources Conservation Service's (NRCS) Web Soil Survey (see Appendix D for the Web Soil Survey Report); California Herps website; and various manuals, reports, and references related to plants and animals of the San Joaquin Valley region.

The field survey did not include focused surveys for special status species. The field survey conducted included the appropriate level of detail to assess the significance of potential impacts to sensitive biological resources resulting from implementing the project. Furthermore, the field survey was sufficient to generally describe those features of the project that could be subject to the jurisdiction of federal and/or state agencies, such as the United States Army Corps of Engineers (USACE), CDFW, Regional Water Quality Control Board (RWQCB) and the State Water Resources Control Board (SWRCB).

2 EXISTING CONDITIONS

2.1 REGIONAL SETTINGS

2.1.1 TOPOGRAPHY

The project site is located within the northeast quarter of Section 12, of the *Lindsay* U.S. Geological Survey (USGS) 7.5-minute quadrangle (or "quad") within Township 20 South, Range 26 East, and the topography of the site is relatively flat with an elevation of approximately 372 feet above mean sea level (see Figure 3).

2.1.2 CLIMATE

Like most of California, the project site experiences a Mediterranean climate. Warm, dry summers are followed by cool, moist winters. In the summer, average high temperatures range between 84- and 97-degrees Fahrenheit (°F), but often exceed 100 °F, and the humidity is generally low. Winter temperatures are often below 65 °F during the day and rarely exceed 70 °F. On average, the City of Lindsay receives approximately 12 inches of precipitation in the form of rain yearly, most of which occurs between October and April, and the project site would be expected to receive similar amounts of precipitation (Weatherspark, 2023).

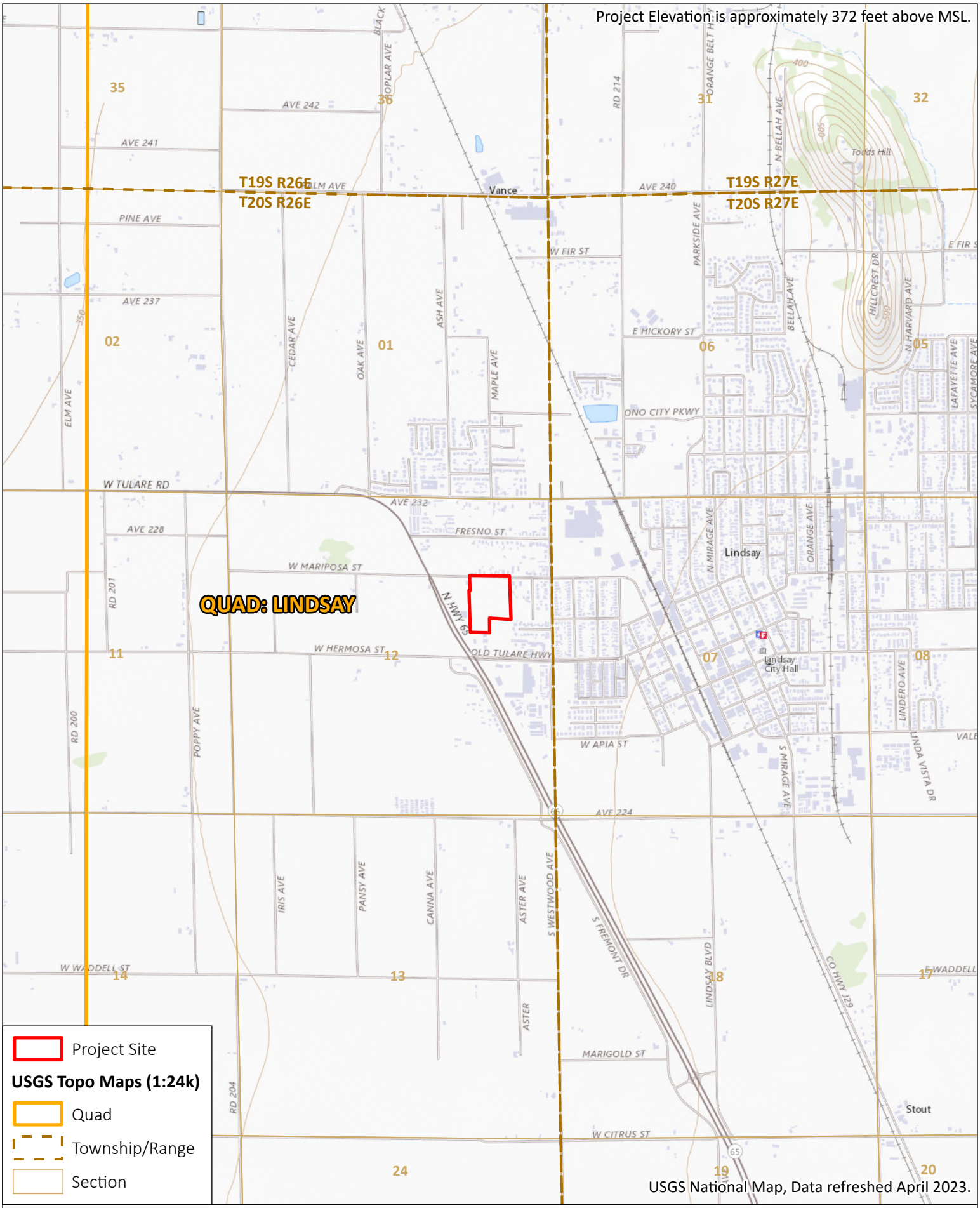
2.1.3 SOILS

Two soil mapping units representing two soil types were identified within the project site and are listed in Table 1, below (see Appendix D for the Web Soil Survey Report). The soils are displayed with their core properties according to the Major Land Resource Area of California. Both soils are primarily used for irrigated cropland, fruit crops, dryland grain, and pasture.

Table 1: List of Soils Located on the Site and Their Basic Properties

Soil	Soil Map Unit	Percent of Project Site	Hydric Soil Category	Drainage	Permeability	Runoff
Exeter	Loam, 0 to 2 percent slopes	78.5%	Predominantly Nonhydric	Well drained	Moderately slow	Negligible to medium
Greenfield	Sandy loam, 0 to 2 percent slopes	21.5%	Nonhydric	Well drained	Moderately rapid	Slow to medium

Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions such that under sufficiently wet conditions, hydrophytic vegetation can be supported. Exeter loam, 0-2 percent slopes, has a predominantly nonhydric rating, which means that no major component listed for this map unit is rated as hydric, and at least one contrasting minor component is rated hydric. Greenfield sandy loam, 0 to 2 percent slopes has a nonhydric rating, which means no major or minor components for this map unit are rated hydric.



USGS National Map, Data refreshed April 2023.

Topographic Map

Self Help Enterprises- Lindsay Well 11 Treatment

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Fig. 3 Page 2-2

2.2 BIOTIC HABITATS

Two biotic habitats, stormwater basin and ruderal, were observed within the project site (see Figure 4). These habitats and their constituent plant and animal species are described in more detail in the following sections.

2.2.1 STORMWATER BASIN

The project site was mostly dominated by stormwater basin habitat in the form of an existing stormwater basin; however, the project components will not be constructed within this habitat. The stormwater basin habitat was nearly empty during the time of the field survey and had stagnant water towards the southeast end of the basin near a culvert that was approximately one to 36 inches deep. The margins of the stormwater basin habitat were dominated by vegetation such as bur clover (*Medicago polymorpha*), castor bean (*Ricinus communis*), curly dock (*Rumex crispus*), honey locust (*Gleditsia triacanthos*), Johnson grass (*Sorghum halepene*), mouse-ear cress (*Arabidopsis thaliana*), and mule fat (*Baccharis salicifolia*).

No aquatic or semi-aquatic bird species were observed in spite of the evidence of bird tracks and feces embedded on the soil surface, but numerous aquatic or semi-aquatic bird species would be expected to use the stormwater basin habitat, especially when it is more inundated. Species that may use this habitat include killdeer (*Charadrius vociferus*), mallard (*Anas platyrhynchos*), Canada goose (*Branta canadensis*), American coot (*Fulica americana*), and other common species in the area.

Unidentified fish carcasses were observed towards the lowest point of the pond and adjacent to the stagnant water. While no evidence of live amphibians, fish, or reptiles was observed in the stormwater basin habitat during the field survey, common species would be expected to use this habitat including western toad (*Anaxyrus boreas*), Pacific tree frog (*Pseudacris regilla*), western fence lizard (*Sceloporus occidentalis*), and fish potentially released for fishing. Mammals that are expected to use this habitat for drinking water or while the habitat is dry include raccoon (*Procyon lotor*), California ground squirrel (*Otospermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), feral cats (*Felis catus*), and domestic dogs (*Canis lupus familiaris*).

2.2.2 RUDERAL

The remainder of the project site, which is where the project components are proposed, consisted of ruderal habitat influenced by anthropogenic activities, which included dirt access roads and disced soils. These areas of the project site contained minimal to moderate vegetation due to vehicle and heavy equipment disturbance. Where vegetation was present, it consisted of invasive grasses, Bermuda grass (*Cynodont dactylon*), cheeseweed mallow (*Malva pariflora*), common fig (*Fiscus carica*), sowthistle (*Sonchus oleraceus*), bromegrass (*Bromus diandrus*), dove weed (*Croton setigerus*), flatspine bur ragweed (*Ambrosia acanthicarpa*), red stemmed filaree (*Erodium cicutarium*), Mexican fan palm (*Washingtonia robusta*), peach (*Prunus persica*), Callery pear (*Pyrus calleryana*), prickly lettuce (*Lactuca serriola*), puncture vine (*Tribulus terrestris*), sacred datura (*Datura wrightii*), silverleaf nightshade (*Solanum elaeagnifolium*), elm (*Ulmus sp.*), sugar bush (*Rhus ovata*), telegraphweed (*Heterotheca grandiflora*), and white horehound (*Marrubium vulgare*).

Numerous bird species were observed within the ruderal habitat of the project site, and included species such as American crow (*Corvus brachyrhynchos*), black phoebe (*Sayornis nigricans*), European starling (*Sturnus vulgaris*), house finch (*Haemorhous meixcanus*), house sparrow (*Passer domesticus*), killdeer, lesser goldfinch (*Spinus Psaltria*), mourning dove (*Zenaida macroura*), ruby-crowned kinglet (*Corthylio calendula*), song sparrow (*Melospiza melodia*), and white crowned sparrow (*Zonotrichia leucophrys*).

Other signs or species observed in this habitat include California ground squirrels and their burrows, gopher mounds, and a deceased frog with an advanced state of decomposition. Reptiles that would be expected to occur within the ruderal habitat of the project site include Pacific gopher snake (*Pituophis catenifer catenifer*), western fence lizard, common side-blotched lizard (*Uta stansburiana*), and other reptiles common to the area. Other mammals that have the potential to occur in this habitat include deer mouse (*Peromyscus maniculatus*), coyote (*Canis latrans*), raccoon, striped skunk (*Mephitis mephitis*), and Virginia opossum (*Didelphis virginiana*).

2.3 NATURAL COMMUNITIES OF SPECIAL CONCERN AND RIPARIAN HABITAT

Natural communities of special concern are those that are of limited distribution, distinguished by significant biological diversity, or home to special status species. CDFW has classified and mapped all-natural communities in California. Just as the special status plant and animal species (see Section 2.6), these natural communities of special concern can be found within the CNDDB. There are no recorded observations of natural communities of special concern mapped within the project site. Additionally, no natural communities of special concern were observed during the field survey.

Riparian habitat is composed of plant communities that occur along the banks, and sometimes over the banks, of most waterways and is an important habitat for numerous wildlife species. CDFW has jurisdiction over most riparian habitat in California. No natural waterways or riparian habitat were observed within or adjacent to the project site.

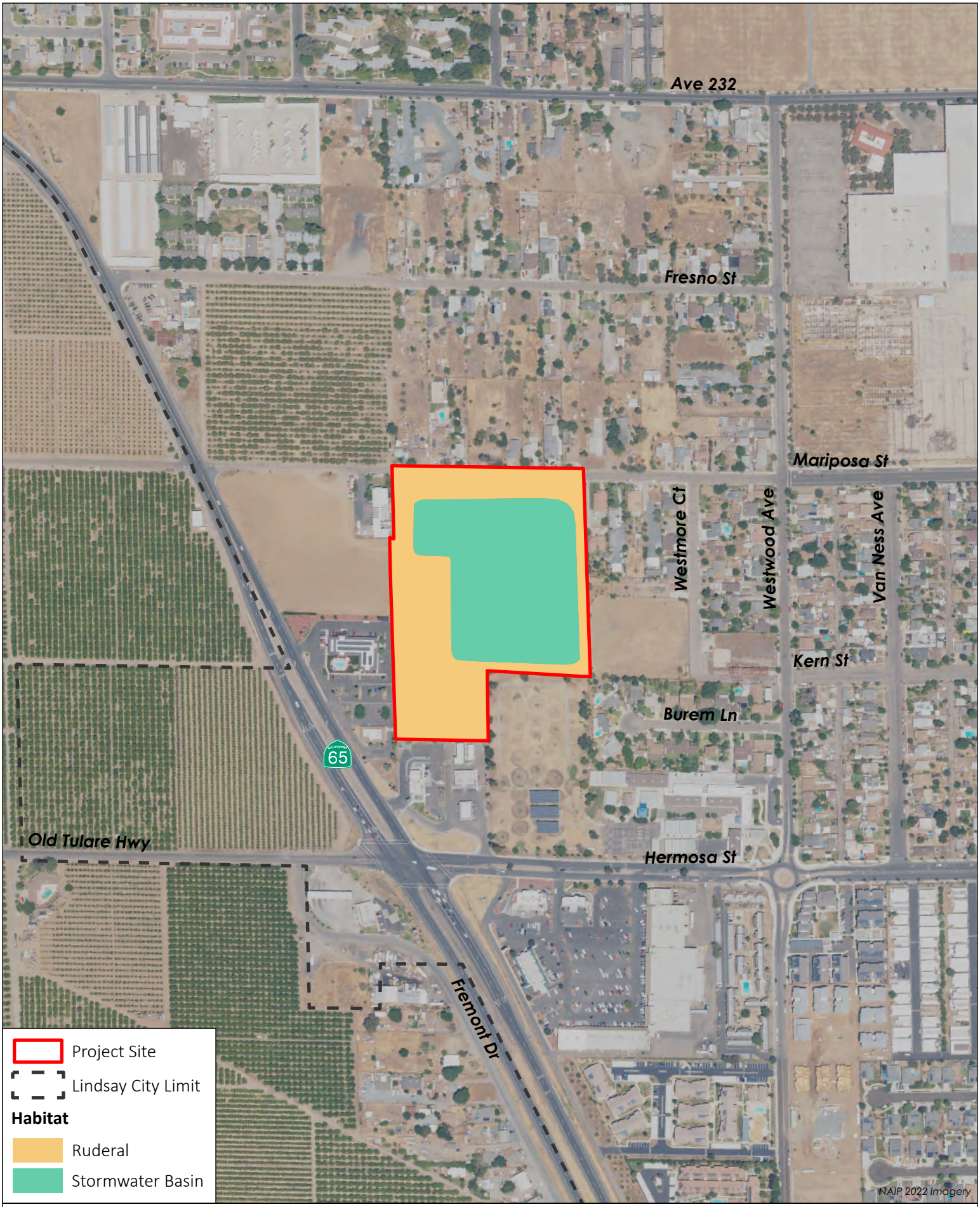
2.4 DESIGNATED CRITICAL HABITAT

The USFWS often designates areas of "critical habitat" when it lists species as threatened or endangered. Critical habitat is a specific geographic area that contains features essential for the conservation of a threatened or endangered species, which may require special management and protection. According to the IPaC, designated critical habitat is absent from the project site and vicinity.

2.5 WILDLIFE MOVEMENT CORRIDORS AND NATIVE WILDLIFE NURSERY SITES

Wildlife movement corridors are routes that animals regularly and predictably follow during seasonal migration, dispersal from native ranges, daily travel within home ranges, and inter-population movements. Movement corridors in California are typically associated with valleys, ridgelines, and rivers and creeks supporting riparian vegetation. The project site does not have any features or habitats that are likely to be utilized as a wildlife movement corridor.

Native wildlife nursery sites are areas where a species or group of similar species raise their young in a concentrated place, such as maternity bat roosts. While native wildlife may utilize the existing stormwater basin habitat as a wildlife nursery site, project components will not be constructed within the stormwater basin habitat.



Habitats Map

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Fig. 4 Page 2-5

2.6 SPECIAL STATUS PLANTS AND ANIMALS

California contains several rare plant and animal species. In this context, "rare" is defined as a species known to have low populations or limited distributions. As the human population grows, urban expansion encroaches on the already-limited suitable habitat for rare species. This results in rare and sensitive species becoming increasingly more vulnerable to extirpation. State and federal regulations have provided the CDFW and USFWS with mechanisms for conserving and protecting the diversity of plant and animal species native to California. Numerous native plants and animals have been formally designated as "threatened" or "endangered" under state and federal endangered species legislation. Other formal designations include "candidate" for listing or "species of special concern" by CDFW. The CNPS has its list of native plants considered rare, threatened, or endangered. Collectively these animals and plants are referred to as "special status species."

A query of the CNDDB for occurrences of special status plant and animal species was conducted for the *Lindsay* 7.5-minute USGS quadrangle that contains the project site, and for the 8 surrounding USGS quadrangles: *Cairns Corner, Chickencoop Canyon, Exeter, Frazier Valley, Porterville, Rocky Hill, Success Dam and Woodville.* A query of the IPaC was also completed for the project site. These species, and their potential to occur within the project site, are listed in Table 2 and Table 3 below. Other special status species that did not show up in the CNDDB query, but have the potential to occur in the vicinity, are also included in Table 3. Species lists obtained from CNDDB and IPaC are available in Appendix B and Appendix C, respectively. All relevant sources of information, as discussed in the Study Methodology section of this report, as well as field observations, were used to determine if any special status species have the potential to occur within the project site.

Table 2: List of Special Status Plants with Potential to Occur on the Site and/or in the Vicinity.

Species	Status*	Habitat	Occurrence within the Site
Alkali -sink goldfields (*Lasthenia chrysantha*)	CNPS 1B	Found in vernal pool and wet saline flat habitats in the San Joaquin Valley region at elevations below 700 feet. Blooms February – April.	**Absent.** Suitable habitats required by this species were absent within the project site and surrounding areas.
Calico monkeyflower (*Diplacus pictus*)	CNPS 1B	Found in the Sierra Nevada foothills and the Tehachapi mountains in bare, sunny, shrubby areas, around granite outcrops within foothill woodland communities. Found at elevations between 450 and 4,100 feet. Blooms March – May.	**Absent.** Suitable habitats required by this species were absent within the project site and surrounding areas and the project site is outside of the known range for this species.
California alkali grass (*Puccinellia simplex*)	CNPS 1B	Found in the San Joaquin Valley and other parts of California in saline flats and mineral springs within valley grassland and wetland-riparian communities. Found at elevations below 3,000 feet. Blooms March – May.	**Absent.** Suitable habitats required by this species were absent within the project site and surrounding areas.

Species	Status*	Habitat	Occurrence within the Site
Chaparral ragwort (*Senecio aphanactis*)	CNPS 2B	Found in chaparral, cismontane woodland, and coastal scrub, typically within drying alkaline flats at elevations between 50 and 2,800 feet. Blooms February – May.	**Absent.** Suitable habitats required by this species were absent within the project site and surrounding areas.
Earlimart orache (*Atriplex cordulata* var. *erecticaulis*)	CNPS 1B	Found in the San Joaquin Valley in saline and alkaline soils, typically within valley grasslands at elevations below 400 feet. Blooms August – September.	**Absent.** Suitable habitat and required soils were absent from the project site.
Kaweah brodiaea (*Brodiaea insignis*)	CE, CNPS 1B	Found in the Sierra Nevada foothills in foothill woodland and valley grassland communities at elevations between 650 and 1,700 feet. Blooms May – June.	**Absent.** Suitable habitats required by this species were absent within the project site and surrounding areas.
Keck's checkerbloom (*Sidalcea keckii*)	FE, CNPS 1B	Occurs in cismontane woodland, valley, and foothill grassland communities, typically on grassy slopes in clay soils at elevations between 250 and 1,700 feet. Blooms April – May.	**Absent.** Suitable habitats required by this species were absent within the project site and surrounding areas.
Lesser saltscale (*Atriplex minuscula*)	CNPS 1B	Found in the San Joaquin Valley in sandy, alkaline soils in alkali scrub, valley and foothill grassland, and alkali sink communities at elevations below 750 feet. Blooms April – October.	**Absent.** Required habitat and alkaline soils were absent within the project site and surrounding areas.
Madera leptosiphon (*Leptosiphon serrulatus*)	CNPS 1B	Found within openings of foothill woodland, often yellow-pine forest, and chaparral at elevations between 1,000 and 4,300 feet. Blooms April – May.	**Absent.** Suitable habitat was absent within the project site and surrounding areas.
Recurved larkspur (*Delphinium recurvatum*)	CNPS 1B	Occurs in chenopod scrub, cismontane woodland, and grassland habitats on poorly drained, fine, alkaline soils; often in valley saltbush or valley chenopod scrub communities at elevations between 100 and 2,600 feet. Blooms March – June.	**Absent.** Suitable habitat and alkaline soils were absent within the project site and surrounding areas.
San Joaquin adobe sunburst (*Pseudobahia peirsonii*)	FT, CE, CNPS 1B	Found in the San Joaquin Valley and the Sierra Nevada foothills in bare, dark clay soils in valley and foothill grassland and cismontane woodland communities at elevations	**Absent.** Suitable habitat and required dark clay soils were absent withing the project site and surrounding areas.

Species	Status*	Habitat	Occurrence within the Site
		between 300 and 3,000 feet. Blooms March – May.	
San Joaquin woollythreads (*Monolopia congdonii*)	FE, CNPS 1B	Occurs in the San Joaquin Valley in sandy soils on alkaline or loamy plains in valley and foothill grassland and alkali scrub communities at elevations between 150 and 2,800 feet. Blooms February – May.	**Absent.** Suitable habitat was absent within the project site and surrounding areas.
Shining navarretia (*Navarretia nigelliformis ssp. Radians*)	CNPS 1B	Found in cismontane woodland and valley and foothill grassland communities, sometimes in vernal pools. Occurs at elevations between 200 and 3,200 feet. Blooms May – July.	**Absent.** Suitable habitat was absent within the project site and surrounding areas.
Spiny-sepaled button-celery (*Eryngium spinosepalum*)	CNPS 1B	Found in the Sierra Nevada foothills and the San Joaquin Valley. Occurs in vernal pools, swales, and roadside ditches. Often associated with clay soils in vernal pools within grassland communities. Occurs at elevations between 50 and 4,200 feet. Blooms April – July.	**Absent.** Suitable habitat including vernal pools were absent within the project site and surrounding areas.
Springville clarkia (*Clarkia springvillensis*)	FT, CE, CNPS 1B	Endemic to the woodlands and grasslands of the southern portion of the Sierra Nevada range, occurring primarily in the Tule River watershed. Found at elevations between 650 and 7,400 feet. Blooms in May.	**Absent.** Suitable habitat was absent within the project site and surrounding areas.
Striped adobe-lily (*Fritillaria striata*)	CT, CNPS 1B	Found in the Sierra Nevada foothills in adobe soil within valley grassland and foothill woodland communities at elevations below 3,300 feet. Blooms February – April.	**Absent.** Suitable habitat and required soils were absent from the project site and surrounding areas.
Subtle orache (*Atriplex subtilis*)	CNPS 1B	Found in the San Joaquin Valley in saline depressions in alkaline soils within valley and foothill grassland communities at elevations below 300 feet. Blooms June – October.	**Absent.** Suitable habitat and required soils were absent within the project site and surrounding areas.

Table 3: List of Special Status Animals with Potential to Occur on the Site and/or in the Vicinity

Species	Status*	Habitat	Occurrence within the Site
American badger (*Taxidea taxus*)	CSSC	Occurs most abundantly in drier open stages of shrub, forest, and herbaceous habitats with friable soils to burrow, but can be found within numerous habitats throughout California, including the margins of agricultural lands. Needs a sufficient prey base of burrowing rodents.	**Unlikely.** Suitable habitat was absent from the project site. The site is frequently disturbed which would deter this species. The nearest recorded observation of this species within the vicinity was approximately 9.9 miles northwest of the project site in 1994.
California condor (*Gymnogyps californianus*)	FE, CE, CFP	Typically nests in cavities in canyon or cliff faces but has also been recorded nesting in giant sequoias in Tulare County. Requires vast expanse of open savannah, grassland, and/or foothill chaparral in mountain ranges of moderate altitude. Forages for carrion up to 100 miles from their roost/nest sites.	**Unlikely.** Nesting habitat was absent from the project site. The project site may provide some foraging opportunities, but the adjacent residences and roads and human activity would deter this species from foraging on the site.
Crotch's bumble bee (*Bombus crotchii*)	CCE	Occurs throughout coastal California, as well as east to the Sierra Nevada-Cascade crest, and south into Mexico. Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	**Unlikely.** Suitable foraging habitat was absent from the project site due to frequent discing. This species could fly through the site but would be expected to fly away during construction. The nearest CNDDB recorded observation was approximately 2 miles northeast of the project site in 1956.
Foothill yellow-legged frog – south Sierra DPS (*Rana boylii pop. 5*)	FC, CE	Frequents rocky streams and rivers with rocky substrate and open, sunny banks in forests, chaparral, and woodlands. Occasionally found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools.	**Absent.** Suitable habitat was absent from the project site.
Monarch butterfly (*Danaus plexippus*)	FC	Roosts in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Larval host plants consist of milkweeds (*Asclepias* sp.). Winter roost sites extend along the Pacific coast from northern Mendocino to Baja California, Mexico.	**Unlikely.** Suitable foraging and roosting habitat was absent from the project site due to frequent discing. This species could fly through the site but would be expected to fly away during construction. There are no recorded observations of this species on CNDDB within the regional vicinity of the project.
Northern California legless lizard (*Anniella pulchra*)	CSSC	Found primarily underground, burrowing in loose, sandy soil. Forages in loose soil and leaf litter during the day.	**Unlikely.** Suitable habitat and required soils were absent from the project site. The nearest CNDDB recorded observation was

Species	Status*	Habitat	Occurrence within the Site
			approximately five miles north of the project site in 2021.
Northwestern pond turtle (*Actinemys marmorata*)	FPT, CSSC	An aquatic turtle of ponds, marshes, slow-moving rivers, streams, and irrigation ditches with riparian vegetation. Requires adequate basking sites and sandy banks or grassy open fields to deposit eggs.	**Unlikely**. The stormwater basin habitat lacks suitable vegetation and cover for this species to bask and hide from predators. The surrounding upland areas are frequently disturbed including discing, which would keep this species from nesting. The nearest CNDDB recorded observation was approximately 9.8 miles northeast of the project site at an unknown date prior to 1988.
Pallid bat (*Antrozous pallidus*)	CSSC	Roosts in rocky outcrops, cliffs, and crevices with access to open habitats for foraging. May also roost in caves, mines, hollow trees, and buildings. Forages over open shrub-steppe grasslands, oak savannah grasslands, open Ponderosa pine forests, talus slopes, gravel roads, lava flows, fruit orchards, and vineyards	**Unlikely.** The project site lacked suitable roosting habitat for this species. This species could fly over or forage within the project site but would not be expected to occur during construction. The nearest CNDDB recorded observation was approximately 12 miles northwest of the project site in 2004.
San Joaquin kit fox (*Vulpes macrotis mutica*)	FE, CT	Opportunistically forages in a variety of habitats. Dens in burrows within alkali sink, valley grassland, and woodland habitats in valleys and adjacent foothills and in human-made structures in cities, rangeland, and agricultural areas.	**Unlikely.** Suitable habitat for this species is absent due to frequent disturbances and lack of prey. While the site contained California ground squirrels at the time of the survey, there were also bait stations present to eliminate them from the site. The nearest recorded observation was approximately 2 miles northwest of the project site in 2001.
Swainson's hawk (*Buteo swainsoni*)	CT	Nests in large trees in open areas adjacent to grasslands, grain or alfalfa fields, or livestock pastures suitable for supporting rodent populations.	**Possible**. While suitable nesting trees for this species were absent within the project site there are trees large enough to nest in the surrounding areas. This species could also forage over the site. The nearest recorded observation of this species occurred approximately 3.8 miles west of the project site in 2017.
Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*)	FE, CE	Inhabits saltbush scrub and sink scrub communities in the Tulare Lake Basin of the southern San Joaquin Valley. This species	**Unlikely.** The project site lacked suitable habitat and soft soils for this species to burrow. The nearest recorded observation was

Species	Status*	Habitat	Occurrence within the Site
		needs soft friable soils to burrow.	approximately 7.4 miles southwest of the project site in 1943.
Townsend's big-eared bat (*Corynorhinus townsendii*)	CSSC	Primarily a cave dwelling bat, but may also roost in tunnels, buildings, other human-made structures, and hollow trees. Occurs in a variety of habitats and forage associations include edge habitats along streams and areas adjacent to and within a variety of wooded habitats.	**Unlikely.** The project site lacked suitable roosting habitat for this species. This species could fly over or forage within the project site but would not be expected to occur during construction. The nearest CNDDB recorded observation was approximately 15 miles southeast of the project site in 1941.
Tricolored blackbird (*Agelaius tricolor*)	CT, CSSC	Nests colonially near fresh water in dense cattails or tules, or in thickets of riparian shrubs. Forages in grassland and cropland. Large colonies are often found foraging in dairy farm feed fields.	**Unlikely.** The project site lacked suitable nesting habitat. This species could forage on or fly over the site but would be expected to fly away during construction. The nearest CNDDB recorded observation was approximately 6.8 miles northeast of the project site in 2014.
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	FT	Lives in mature elderberry shrubs of the Central Valley and adjacent foothills from Tehama County south through Merced and Mariposa Counties with two scattered populations in Madera and Fresno Counties. Adults are active from March to June.	**Absent.** Suitable habitat and elderberry shrubs required by this species were absent from the site. The project site is located outside of the known range for this species.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	Occupies vernal and seasonal pools, with clear to tea-colored water, in grass or mud-bottomed swales, and basalt depression pools.	**Absent.** Suitable vernal pool habitat was absent from the project site.
Western mastiff bat (*Eumops perotis californicus*)	CSSC	Found in open, arid to semi-arid habitats, including dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas, where it feeds on insects in flight. Roosts most commonly in crevices in cliff faces but may also use high buildings and tunnels.	**Unlikely.** The project site lacked suitable roosting habitat for this species. This species could fly over or forage within the project site but would not be expected to occur during construction. The nearest recorded observation was approximately 8.4 miles north of the project site in 1994.
Western spadefoot (*Spea hammondii*)	FPT, CSSC	The majority of the time this species is terrestrial and occurs in small mammal burrows and soil cracks, sometimes in the bottom of dried pools. Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal	**Unlikely.** Although the project site contains marginally suitable habitat for this species such as the stormwater basin, the odds of this species occurring here are low. In addition, the highly disturbed surrounding areas make it unlikely that this species would occur within the project site. The last recorded

Species	Status*	Habitat	Occurrence within the Site
		sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Vernal or seasonal pools, that hold water for a minimum of three weeks, are necessary for breeding.	observation was approximately six miles northeast of the project site in 1991.
Western yellow-billed cuckoo (*Coccyzus americanus*)	FT, CE	Suitable nesting habitat in California includes dense riparian willow-cottonwood and mesquite habitats along a perennial river. Once common in the California Central Valley, as well as coastal valleys and riparian habitats east of the Sierra Nevada, habitat loss now constrains the California breeding population to small numbers of birds.	**Absent.** Suitable habitat was absent from the project site.

***EXPLANATION OF OCCURRENCE DESIGNATIONS AND STATUS CODES**

Present:	Species observed on the project site at time of field surveys or during recent past.
Likely:	Species not observed on the project site, but it may reasonably be expected to occur there on a regular basis.
Possible:	Species not observed on the project site, but it could occur there from time to time.
Unlikely:	Species not observed on the project site, and would not be expected to occur there except, perhaps, as a transient.
Absent:	Species not observed on the project site and precluded from occurring there due to absence of suitable habitat.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CCE	California Endangered (Candidate)
FC	Federal Candidate	CT	California Threatened
FPT	Federally Threatened (Proposed)	CFP	California Fully Protected
		CSSC	California Species of Special Concern

CNPS LISTING

1B	Plants rare, threatened, or endangered in California and elsewhere.
2B	Plants rare, threatened, or endangered in California, but more common elsewhere.

3 IMPACTS AND MITIGATION

3.1 SIGNIFICANCE CRITERIA

3.1.1 CEQA

General plans, area plans, and specific projects are subject to the provisions of CEQA. The purpose of CEQA is to assess the impacts of proposed projects on the environment prior to project implementation. Impacts to biological resources are just one type of environmental impact assessed under CEQA and vary from project to project in terms of scope and magnitude. Projects requiring removal of vegetation may result in the mortality or displacement of animals associated with this vegetation. Animals adapted to humans, roads, buildings, and pets may replace those species formerly occurring on a site. Plants and animals that are rare may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed. Such impacts may be considered either "significant" or "less than significant" under CEQA. According to *CEQA Statute and Guidelines* (AEP 2023), "significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest. Specific project impacts to biological resources may be considered "significant" if they would:

- 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 CDFW or USFWS;
- 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 CDFW or USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA) (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 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.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state HCP.

Furthermore, CEQA Guidelines Section 15065(a) states that a project may trigger the requirement to make a "mandatory finding of significance" if the project has 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, reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory."

3.1.2 NEPA

Federal projects are subject to the provisions of NEPA. The purpose of NEPA is to assess the effects of a proposed action on the human environment, assess the significance of those effects, and recommend measures that if implemented would mitigate those effects. As used in NEPA, a determination that certain

effects on the human environment are "significant" requires considerations of both context and intensity (40 Code of Federal Regulations (CFR) 1508.27).

For the purposes of assessing effects of an action on biological resources, the relevant context is often local. The analysis may, however, require a comparison of the action area's biological resources with the biological resources of an entire region. Project activities must have a federal nexus and discuss federally listed species, and/or designated critical habitat that may be affected in the action area.

Federal agencies are required to determine whether their actions may affect listed or proposed species and designated critical habitat. The primary role of this document is to provide agencies conclusion and the rationale to support those conclusions regarding the effects of any proposed actions of the project on protected resources. Document content and recommended elements are identified in 50 CFR 402.12(f).

Under section 7 of the Endangered Species Act, federal agencies must consult with NOAA Fisheries or the USFWS, depending on the species, through an informal or formal consultation when any action the agency carries out, funds, or authorizes may affect either a species listed as threatened or endangered under the Act, or any critical habitat designated for it.

Once resources are assessed an Endangered Species Act Section 7 finding needs to be made regarding proposed or listed species and/or designated critical habitat that may be present in the project area. This report will provide the necessary information for the lead federal agency to make a determination on affects. This finding may result in one of the following determinations:

- "No effect" - means there will be no impacts, positive or negative, to listed or proposed resources. Generally, this means no listed resources will be exposed to action and its environmental consequences. Concurrence from the Service is not required.
- "May affect, but not likely to adversely affect" means that all effects are beneficial, insignificant, or discountable. Beneficial effects have contemporaneous positive effects without any adverse effects to the species or habitat. Insignificant effects relate to the size of the impact and include those effects that are undetectable, not measurable, or cannot be evaluated. Discountable effects are extremely unlikely to occur. These determinations require written concurrence from the Service.
- "May affect, likely to adversely affect" means that listed resources are likely to be exposed to the action or its environmental consequences and will respond in a negative manner to the exposure.

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 TULARE COUNTY GENERAL PLAN

The Tulare County General Plan contains the following goals and policies related to the project:

BIOLOGICAL RESOURCES:

The Environmental Resource Management (ERM) policies were established to preserve and protect sensitive significant habitats, enhance biodiversity, and promote healthy ecosystems throughout the county.

ERM-1.1: **Protection of Rare and Endangered Species.** The County shall ensure the protection of environmentally sensitive wildlife and plant life, including those species designated as rare, threatened, and/or endangered by State and/or Federal government, through compatible land use development.

ERM-1.16 **Cooperate with Wildlife Agencies.** The County shall cooperate with State and federal wildlife agencies to address linkages between habitat areas.

WATER QUALITY:

The Water Resources (WR) policies were established to provide for the current and long-range water needs of the County and for the protection of the quality of surface water and groundwater resources.

WR-2.1 **Protect Water Quality:** All major land use and development plans shall be evaluated as to their potential to create surface and groundwater contamination hazards from point and non-point sources. The County shall confer with other appropriate agencies, as necessary, to assure adequate water quality review to prevent soil erosion; direct discharge of potentially harmful substances; ground leaching from storage of raw materials, petroleum products, or wastes; floating debris; and runoff from site.

WR-2.2 **National Pollutant Discharge Elimination System (NPDES) Enforcement:** The County shall continue to support the State in monitoring and enforcing provisions to control non-point source water pollution contained in the U.S. Environmental Protection Agency NPDES program as implemented by the Water Quality Control Board.

WR-2.3 **Best Management Practices (BMPs):** The County shall continue to require the use of feasible BMPs, and other mitigation measures designed to protect surface water and groundwater from the adverse effects of construction activities, agricultural operations requiring a County Permit and urban runoff in coordination with the Water Quality Control Board.

3.2.2 THREATENED AND ENDANGERED SPECIES

Permits may be required from CDFW and/or USFWS if activities associated with a project have the potential to result in the "take" of a species listed as threatened or endangered under the California Endangered Species Act (CESA) and/or Endangered Species Act (ESA), respectively. Take is defined by CESA as, "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" (California Fish and Game Code, Section 86). Take is more broadly defined by the ESA to include "harm" (16 USC, Section 1532(19), 50 CFR, Section 17.3). CDFW and USFWS are responsible agencies under CEQA and NEPA. Both agencies review CEQA and NEPA documents in order to determine the adequacy of the treatment of endangered species issues and to make project-specific recommendations for their conservation.

3.2.3 DESIGNATED CRITICAL HABITAT

When species are listed as threatened or endangered, the USFWS often designates areas of "critical habitat" as defined by section 3(5)(A) of the ESA. Critical habitat is a term defined in the ESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat is a tool that supports the continued conservation of imperiled species by guiding cooperation with the federal government. Designations only affect federal agency actions or federally funded or permitted activities. Critical habitat does not prevent activities that occur within the designated area. Only activities that involve a federal permit, license, or funding and are likely to destroy or adversely modify critical habitat will be affected.

3.2.4 MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA: 16 USC 703-712) prohibits killing, possessing, or trading in any bird species covered in one of four international conventions to which the United States is a party, except in accordance with regulations prescribed by the Secretary of the Interior. The name of the act is misleading,

as it covers almost all bird's native to the United States, even those that are non-migratory. The MBTA encompasses whole birds, parts of birds, and bird nests and eggs. Additionally, California Fish and Game Code makes it unlawful to take or possess any non-game birds covered by the MBTA (Section 3513), as well as any other native non-game birds (Section 3800).

3.2.5 BIRDS OF PREY

Birds of prey are protected in California under provisions of California Fish and Game Code (Section 3503.5), which states that it is unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks and eagles) or Strigiformes (owls), as well as their nests and eggs. The bald eagle and golden eagle are afforded additional protection under the Bald and Golden Eagle Protection Act (16 USC 668), which makes it unlawful to kill birds or their eggs, or take feathers or nests, without a permit issued by the U.S. Secretary of the Interior.

3.2.6 NESTING BIRDS

In California, protection is afforded to the nests and eggs of all birds. California Fish and Game Code (Section 3503) states that it is "unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Breeding-season disturbance that causes nest abandonment and/or loss of reproductive effort is considered a form of "take" by the CDFW.

3.2.7 WETLANDS AND OTHER "JURISDICTIONAL WATERS"

The definition of "waters of the United States" (WOTUS) often changes from one presidential administration to the next and can also be affected by the outcomes of court cases involving federal jurisdiction of waters. The current definition (i.e., "Conforming Rule") was adopted under the Biden Administration in early 2023 and was subsequently revised in September 2023 to incorporate the U.S. Supreme Court's May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency* (EPA). The Conforming Rule has adopted much of the same WOTUS designations as the pre-2015 rules but has incorporated the most recent science and court case rulings. The extent of jurisdiction has been defined in the Code of Federal Regulations (CFR) but is also subject to interpretation by the federal courts. Jurisdictional waters generally include the following categories:

1) *Traditional Navigable Waters, the territorial seas, or interstate waters (not including interstate wetlands);*
2) *Impoundments of waters of the United States;*
3) *Tributaries of:*
    a. *Traditional navigable waters, territorial seas, or interstate waters (not including interstate wetlands); or*
    b. *Impoundments of waters of the United States when the tributaries meet the relatively permanent standard.*
4) *Wetlands:*
    a. *Adjacent to traditional navigable waters, the territorial seas, or interstate waters;*
    b. *Adjacent to and with a continuous surface connection to relatively permanent impoundments of waters of the United States*
    c. *Adjacent to and with a continuous surface connection to relatively permanent jurisdictional tributaries.*
5) *Intrastate lakes and ponds not identified in items 1 through 4 of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in items 1 or 3 above.*

Exclusions under the new definition include the following:

1) *Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the CWA;*
2) *Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with USEPA;*
3) *Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;*
4) *Artificially irrigated areas that would revert to dry land if the irrigation ceased;*
5) *Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;*
6) *Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;*
7) *Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and*
8) *Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.*

The Conformin Rule has incorporated the best available science, relevant supreme court cases, public comment, technical expertise, and experience gained from more than 45 years of implementing the pre-2015 "waters of the United States" framework to inform jurisdictional limits. One significant court case involved the U.S. Supreme Court in its *2001 Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers (SWANCC)* decision. It was determined that channels and wetlands isolated from other jurisdictional waters cannot be considered jurisdictional on the basis of their use, hypothetical or observed, by migratory birds.

Similarly, in its 2006 consolidated *Carabell/Rapanos* decision, the United States Supreme Court ruled that a significant nexus between a wetland and other navigable waters must exist for the wetland itself to be considered a jurisdictional water. The Supreme Court heard *Sackett v. United States Environmental Protection Agency (EPA)* in May 2023, to determine governing standards of a significant nexus between waters of the United States and adjacent wetlands. The court decided that adjacent wetlands would be protected under the CWA only if it maintained a continuous surface water connection with a federal water body. This decision has limited protection for networks of wetlands connected to navigable waters through subsurface flow. The final decision was enacted in September 2023.

The USACE regulates the filling or grading of waters of the United States. under the authority of Section 404 of the CWA. The extent of jurisdiction within drainage channels is defined by "ordinary high-water marks" on opposing channel banks. All activities that involve the discharge of dredge or fill material into waters of the United States are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that results in no net loss of wetland functions or values. No permit can be issued until the RWQCB issues a Section 401 Water Quality

Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards.

Under the Porter-Cologne Water Quality Control Act of 1969, the SWRCB has regulatory authority to protect the water quality of all surface water and groundwater in California ("waters of the state"). Nine RWQCBs oversee water quality at the local and regional level. The RWQCB for a given region regulates discharges of fill or pollutants into waters of the state through the issuance of various permits and orders. Discharges into Waters of the State that are also WOTUS require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining certain federal permits, such as a Section 404 Clean Water Act permit. Discharges into all Waters of the State, even those that are not also WOTUS, require waste discharge requirements (WDRs), or waivers of WDRs, from the RWQCB. The RWQCB also administers the Construction Storm Water Program and the federal National Pollution Discharge Elimination System (NPDES) program. Projects that disturb one acre or more of soil must obtain a Construction General Permit under the Construction Storm Water Program. A prerequisite for this permit is the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Projects that discharge wastewater, storm water, or other pollutants into a WOTUS may require an NPDES permit.

CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1601 and 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use any material from their bed or bank, or deposits debris within them require a notification of a Lake or Streambed Alteration. If CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. Such an agreement typically stipulates that certain avoidance and minimization measures will be implemented to protect the habitat values of the lake or drainage in question and the plant, fish, and wildlife species that may be present within these resources.

3.3 POTENTIALLY SIGNIFICANT PROJECT-RELATED IMPACTS AND MITIGATION

Species protected by California Fish and Game Code, CDFW, USFWS, CEQA, or NEPA that have the potential to be impacted by project activities include Swainson's hawk and migratory birds and raptors. Corresponding mitigation measures can be found below.

3.3.1 PROJECT-RELATED MORTALITY AND/OR NEST ABANDONMENT OF MIGRATORY BIRDS AND RAPTORS, INCLUDING SWAINSON'S HAWK

The project will result in the construction of a brine pond that will hold water with saturated sodium chloride brine (approximately 25% NaCl) and elevated levels of nitrate and potentially elevated levels of arsenic which could impact migratory birds and raptors, and implementation of the project has the potential to impact nesting migratory birds and raptors including Swainson's hawk. The construction of the brine pond could potentially attract aquatic and semi-aquatic birds. While birds generally avoid areas that could harm them, birds that land on or adjacent to this pond could become encrusted with salt and drown or impact their ability to fly. If birds preen their feathers that have toxic brine water or drink toxic brine water from the brine pond, they could become sick or die due to toxicosis. Raptors could forage on birds with toxicosis and could have secondary poisoning. This would be an ongoing potential impact to migratory birds and raptors for the life of the project, or whenever there was toxic brine water or residual toxic brine in the proposed brine pond. In addition, the project site contains suitable nesting habitat for a variety of protected bird species, such as migratory birds and raptors. It is anticipated that during the nesting bird season, protected birds could nest on the ground or in shrubs, trees, or structures within the project site.

Protected birds located within or adjacent to the project site during construction have the potential to be injured or killed by project-related activities. In addition to the direct "take" of protected birds within the project site and adjacent areas, these birds nesting in these areas could be disturbed by project-related activities resulting in nest abandonment. Projects that adversely affect the nesting success of protected birds or result in the mortality of the migratory birds and raptors would be a violation of state and federal laws and considered a potentially significant impact under CEQA and NEPA.

While foraging habitat for protected birds including Swainson's hawk is present on the site, suitable foraging habitat is located adjacent to the site and within the vicinity of the site. Loss of the foraging habitat from implementation of the project is not considered a significant impact.

Implementation of the following measures will reduce potential impacts to protected birds to a less than significant level under CEQA and NEPA and help comply with state and federal laws protecting these bird species.

> Mitigation Measure BIO-1a (*Deterrents*): Prior to filling the brine pond, deterrents will be put in place to discourage birds from using the pond. This could include a combination of visual, auditory, and physical deterrents for birds to minimize the potential for protected birds to utilize the brine pond. Examples include deterrents such as noise makers, ribbons, lasers, motion-triggered sprinklers, decoys, and others.
>
> Mitigation Measure BIO-1b (*Avoidance*): The project's construction activities will occur, if feasible, between September 16 and January 31 (outside of the nesting bird season) to avoid impacts to nesting birds.
>
> Mitigation Measure BIO-1c (*Pre-construction Surveys*): If project construction activities must occur within the nesting bird season (February 1 to August 31), a qualified biologist will conduct a pre-construction survey for active nests within seven (7) calendar days prior to the start of construction. The survey will include a one-time take avoidance survey for Swainson's hawk and other birds and raptors. The survey will be completed within the project site, and up to 100 feet outside of the project site for nesting migratory birds, up to 500 feet outside of the project site for nesting raptors, and up to 0.5-mile outside of the project site for nesting Swainson's hawks. Raptor nests will be considered "active" upon the nest-building stage. The survey will not be completed between April 21 to June 10 due to the difficulty of identifying Swainson's hawk nests during this time of year. If no active nests are observed, no further mitigation is required.
>
> Mitigation Measure BIO-1d (*Avoidance Buffers*): On discovery of any active nests or breeding colonies near work areas, a qualified biologist will determine appropriate avoidance buffer distances based on applicable CDFW and/or USFWS guidelines, the biology of the species, conditions of the nest(s), and the level of project disturbance. If necessary, avoidance buffers will be identified and will be maintained until the biologist has determined that the nestlings have fledged.

3.4 SECTION 7 DETERMINATIONS

In addition to the occurrence analysis performed in Table 2 and Table 3 of this document, Table 4 summarizes project effect determinations for federally-listed species found on the CNDDB list generated

on March 7, 2024, and the USFWS IPaC list generated on March 7, 2024 (see Appendix B and Appendix C, respectively), in accordance with Section 7 of the Endangered Species Act.

Table 4: Section 7 Determinations

Species	Determination	Rationale for Determination
California condor *(Gymnogyps californianus)*	No effect	**Habitats absent.** Nesting habitat was absent from the project site. The project site may provide some foraging opportunities, but frequent disturbances would deter this species.
Foothill yellow-legged frog - south Sierra DPS (*Rana boylii pop. 5*)	No effect	**Habitat absent.** Suitable habitat was absent from the project site.
Keck's checkerbloom (*Sidalcea keckii*)	No effect	**Habitats absent.** Suitable habitats required by this species were absent within the project site and surrounding areas.
Monarch butterfly (*Danaus plexippus*)	No effect	**Habitats absent**. Suitable foraging and roosting habitat was absent from the project site due to frequent discing. This species could fly through the site but would be expected to fly away during construction.
Northwestern pond turtle (*Actinemys marmorata*)	No effect	**Habitat absent.** The stormwater basin habitat lacks suitable vegetation and cover for this species to bask and hide from predators. The surrounding upland areas are frequently disturbed including discing, which would keep this species from nesting.
San Joaquin adobe sunburst *(Pseudobahia peirsonii)*	No effect	**Habitats absent.** Suitable habitat and required dark clay soils were absent withing the project site and surrounding areas.
San Joaquin kit fox (*Vulpes macrotis mutica*)	No effect	**Habitats absent.** Suitable habitat for this species is absent due to frequent disturbances and lack of prey. While the site contained California ground squirrels at the time of the survey, there were also bait stations present to eliminate them from the site.
San Joaquin woollythreads (*Monolopia congdonii*)	No effect	**Habitats absent.** Suitable habitat was absent within the project site and surrounding areas.
Springville clarkia (*Clarkia springvillensis*)	No effect	**Habitats absent.** Suitable habitat was absent within the project site and surrounding areas.
Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*)	No effect	**Habitats absent**. The project site lacked suitable habitat and soft soils for this species to burrow.
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	No effect	**Habitat absent.** Suitable habitat and elderberry shrubs required by this species were absent from the site. The project site is located outside of the known range for this species.

Species	Determination	Rationale for Determination
Vernal pool fairy shrimp (*Branchinecta lynchi*)	No effect	**Habitat absent**. Vernal pool habitat was absent within the project site and surrounding areas.
Western spadefoot (*Spea hammondii*)	No effect	**Habitat marginal.** Although the project site contains marginally suitable habitat for this species such as the stormwater basin, the odds of this species occurring here are low. In addition, the highly disturbed surrounding areas make it unlikely that this species would occur within the project site.
Western yellow-billed cuckoo (*Coccyzus americanus*)	No effect	**Habitats absent.** Habitats required by this species for nesting and foraging were absent from the project site and surrounding areas.

3.5 LESS THAN SIGNIFICANT PROJECT-RELATED IMPACTS

3.5.1 PROJECT-RELATED IMPACTS TO SPECIAL STATUS PLANT SPECIES ABSENT FROM, OR UNLIKELY TO OCCUR ON, THE PROJECT SITE

Of the 17 regionally occurring special status plant species, all are considered absent from or unlikely to occur within the project site due to past or ongoing disturbance and/or the absence of suitable habitat.

Since it is unlikely that these species would occur onsite, implementation of the project should have no impact on these 17 special status species through construction mortality, disturbance, or loss of habitat. Mitigation measures are not warranted.

3.5.2 PROJECT-RELATED IMPACTS TO SPECIAL STATUS ANIMAL SPECIES ABSENT FROM, OR UNLIKELY TO OCCUR ON, THE PROJECT SITE

Of the 18 regionally occurring special status animal species, 17 are considered absent from or unlikely to occur within the project site due to past or ongoing disturbance and/or the absence of suitable habitat. These species include: American badger, California condor, Crotch's bumble bee, foothill yellow-legged frog, monarch butterfly, northern California legless lizard, northwestern pond turtle, pallid bat, San Joaquin kit fox, Tipton kangaroo rat, Townsend's big-eared bat, tricolored blackbird, valley elderberry longhorn beetle, vernal pool fairy shrimp, western mastiff bat, western spadefoot, and western yellow-billed cuckoo.

Since it is unlikely that these species would occur onsite, implementation of the project should have no impact on these 17 special status species through construction mortality, disturbance, or loss of habitat. Mitigation measures are not warranted.

3.5.3 PROJECT-RELATED IMPACTS TO RIPARIAN HABITAT AND NATURAL COMMUNITIES OF SPECIAL CONCERN

Riparian habitat is absent from the project site and adjacent areas. There are no CNDDB-designated "natural communities of special concern" recorded within the project site or surrounding areas. Mitigation is not warranted.

3.5.4 PROJECT-RELATED IMPACTS TO REGULATED WATERS, WETLANDS, AND WATER QUALITY

Typical wetlands, vernal pools, and other waters were not observed onsite at the time of the field survey. The only aquatic feature onsite is a stagnant, isolated, stormwater basin with no connection to navigable waters or a natural drainage channels with a bed or bank, and therefore it can be reasonably assumed that jurisdictional waters are absent. There are no designated wild and scenic rivers within the project site;

therefore, the project would not result in direct impacts to wild and scenic rivers. Mitigation measures are not warranted.

Since construction would involve ground disturbance over an area greater than one acre, the project would also be required to obtain a Construction General Permit under the Construction Storm Water Program administered by the RWQCB. A prerequisite for this permit is the development of a SWPPP to ensure construction activities do not adversely affect water quality.

3.5.5 PROJECT-RELATED IMPACTS TO WILDLIFE MOVEMENT CORRIDORS AND NATIVE WILDLIFE NURSERY SITES

The project site does not contain features that would be likely to function as wildlife movement corridors. The surrounding areas are commercial and residential with paved roads; it is unlikely construction would affect animal dispersion and migration.

The project site contains a stormwater basin that could potentially be used as a native wildlife nursery site by aquatic and semi-aquatic species. The basin is not proposed to be impacted by the project.

Therefore, the project would have no impact on wildlife movement corridors or native wildlife nursery sites, and no mitigation measures are warranted.

3.5.6 PROJECT-RELATED IMPACTS TO CRITICAL HABITAT

Designated critical habitat is absent from the project site and surrounding areas. Therefore, there would be no impact to critical habitat, and mitigation measures are not warranted.

3.5.7 LOCAL POLICIES OR HABITAT CONSERVATION PLANS

The project appears to be consistent with the goals and policies of the Tulare County General Plan. There are no known HCPs or NCCPs in the project vicinity. Mitigation measures are not warranted.

3.5.8 COASTAL ZONE AND COASTAL BARRIERS RESOURCES ACT

The project would not be located within the coastal zone. The project would not impact or be located within or near the Coastal Barrier Resources System or its adjacent wetlands, marshes, estuaries, inlets, and near-shore waters. Mitigation measures are not warranted.

3.5.9 PROJECT-RELATED IMPACT TO ESSENTIAL FISH HABITAT

Essential Fish Habitat (EFH) and Habitat Areas of Particular Concern are absent from the project site and surrounding areas, and consultation with the National Marine Fisheries (NMFS) Service would not be required. Query results of the NMFS EHF Mapper can be found in Appendix E at the end of this document. Mitigation measures are not warranted.

4 REFERENCES

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APPENDIX A: REPRESENTATIVE PHOTOS OF THE PROJECT SITE

Photograph 1

Overview of the stormwater basin habitat within the site.

Photograph 2

Another overview of the stormwater basin habitat within the site.

Photograph 3

Overview of the stagnant water within the storm-water basin habitat.

Photograph 4

Unidentified fish carcasses located within the storm-water basin habitat.

Photograph 5

Overview of the ruderal habitat within the site.

Photograph 6

Another overview of the ruderal habitat within the site.

Photograph 7

Domestic dog scat located within the ruderal habitat onsite.

Photograph 8

Example of a California ground squirrel burrow located within the ruderal habitat onsite.

Photograph 9

California ground squirrel bait stations were located along the south fence line . Surrounding land to the south consisted of an elementary school.

Photograph 10

Surrounding land to the north and east consisted of residential neighborhoods.

APPENDIX B: CNDDB 9-QUAD SPECIES LIST

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Exeter (3611932) OR Rocky Hill (3611931) OR Chickencoop Canyon (3611838) OR Frazier Valley (3611828) OR Lindsay (3611921) OR Cairns Corner (3611922) OR Woodville (3611912) OR Porterville (3611911) OR Success Dam (3611818))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
alkali-sink goldfields *Lasthenia chrysantha*	PDAST5L030	None	None	G2	S2	1B.1
American badger *Taxidea taxus*	AMAJF04010	None	None	G5	S3	SSC
calico monkeyflower *Diplacus pictus*	PDSCR1B240	None	None	G2	S2	1B.2
California alkali grass *Puccinellia simplex*	PMPOA53110	None	None	G2	S2	1B.2
California condor *Gymnogyps californianus*	ABNKA03010	Endangered	Endangered	G1	S2	FP
chaparral ragwort *Senecio aphanactis*	PDAST8H060	None	None	G3	S2	2B.2
Crotch's bumble bee *Bombus crotchii*	IIHYM24480	None	Candidate Endangered	G2	S2	
Earlimart orache *Atriplex cordulata var. erecticaulis*	PDCHE042V0	None	None	G3T1	S1	1B.2
foothill yellow-legged frog - south Sierra DPS *Rana boylii pop. 5*	AAABH01055	Endangered	Endangered	G3T2	S2	
Great Valley Valley Oak Riparian Forest *Great Valley Valley Oak Riparian Forest*	CTT61430CA	None	None	G1	S1.1	
Kaweah brodiaea *Brodiaea insignis*	PMLIL0C060	None	Endangered	G1	S1	1B.2
Keck's checkerbloom *Sidalcea keckii*	PDMAL110D0	Endangered	None	G2	S2	1B.1
lesser saltscale *Atriplex minuscula*	PDCHE042M0	None	None	G2	S2	1B.1
Madera leptosiphon *Leptosiphon serrulatus*	PDPLM09130	None	None	G3	S3	1B.2
molestan blister beetle *Lytta molesta*	IICOL4C030	None	None	G2	S2	
Moody's gnaphosid spider *Talanites moodyae*	ILARA98020	None	None	G2G3	S2S3	
Morrison's blister beetle *Lytta morrisoni*	IICOL4C040	None	None	G1G2	S2	
Northern California legless lizard *Anniella pulchra*	ARACC01020	None	None	G3	S2S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Northern Claypan Vernal Pool *Northern Claypan Vernal Pool*	CTT44120CA	None	None	G1	S1.1	
northwestern pond turtle *Actinemys marmorata*	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
pallid bat *Antrozous pallidus*	AMACC10010	None	None	G4	S3	SSC
recurved larkspur *Delphinium recurvatum*	PDRAN0B1J0	None	None	G2?	S2	1B.2
San Joaquin adobe sunburst *Pseudobahia peirsonii*	PDAST7P030	Threatened	Endangered	G1	S1	1B.1
San Joaquin kit fox *Vulpes macrotis mutica*	AMAJA03041	Endangered	Threatened	G4T2	S3	
San Joaquin Valley giant flower-loving fly *Rhaphiomidas trochilus*	IIDIP05010	None	None	G1	S1	
San Joaquin woollythreads *Monolopia congdonii*	PDASTA8010	Endangered	None	G2	S2	1B.2
shining navarretia *Navarretia nigelliformis ssp. radians*	PDPLM0C0J2	None	None	G4T2T3	S2S3	1B.2
spiny-sepaled button-celery *Eryngium spinosepalum*	PDAPI0Z0Y0	None	None	G2	S2	1B.2
Springville clarkia *Clarkia springvillensis*	PDONA05120	Threatened	Endangered	G2	S2	1B.2
striped adobe-lily *Fritillaria striata*	PMLIL0V0K0	None	Threatened	G1	S1	1B.1
subtle orache *Atriplex subtilis*	PDCHE042T0	None	None	G1	S1	1B.2
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S4	
Tipton kangaroo rat *Dipodomys nitratoides nitratoides*	AMAFD03152	Endangered	Endangered	G2T1T2	S2	
Townsend's big-eared bat *Corynorhinus townsendii*	AMACC08010	None	None	G4	S2	SSC
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	Threatened	G1G2	S2	SSC
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	IICOL48011	Threatened	None	G3T3	S3	
Valley Sacaton Grassland *Valley Sacaton Grassland*	CTT42120CA	None	None	G1	S1.1	
vernal pool fairy shrimp *Branchinecta lynchi*	ICBRA03030	Threatened	None	G3	S3	
western mastiff bat *Eumops perotis californicus*	AMACD02011	None	None	G4G5T4	S3S4	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
western spadefoot *Spea hammondii*	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC

Record Count: 40

APPENDIX C: IPAC SPECIES LIST

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: 09/27/2024 17:05:16 UTC
Project Code: 2024-0059460
Project Name: Lindsay Well 11 Treatment Project

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, 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 U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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 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 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:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

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 Code 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

Project Code: 2024-0059460
Project Name: Lindsay Well 11 Treatment Project
Project Type: Wastewater Facility - New Construction
Project Description: The project includes the construction of lined brine evaporation ponds along the west side of the project site, a treatment plant along the north side of the existing stormwater basin, and a pipeline to connect the existing well to the treatment plant and brine evaporation ponds. The project will not be impacting the existing stormwater basin and associated infrastructure. The new pond basins would be used for brine generated from treating water collected from the well. The water in the brine ponds will be saturated sodium chloride brine (approximately 25% NaCl) with elevated levels of nitrate and potentially elevated levels of arsenic. The ponds will include polyethylene lining to prevent migration of the brine into groundwater. The current existing stormwater basin will continue to serve as a stormwater basin.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.20571645,-119.1035228054985,14z

Counties: Tulare County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 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.

MAMMALS

NAME	STATUS
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered
Tipton Kangaroo Rat *Dipodomys nitratoides nitratoides* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7247	Endangered

BIRDS

NAME	STATUS
California Condor *Gymnogyps californianus* Population: Wherever found, except where listed as an experimental population There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

REPTILES

NAME	STATUS
Northwestern Pond Turtle *Actinemys marmorata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

AMPHIBIANS

NAME	STATUS
Western Spadefoot *Spea hammondii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

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

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi*	Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/498

FLOWERING PLANTS

NAME	STATUS
San Joaquin Adobe Sunburst *Pseudobahia peirsonii*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/2931

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Shaylea Stark
Address: 455 W Fir Ave
City: Clovis
State: CA
Zip: 93612
Email sstark@ppeng.com
Phone: 5594492700

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Lindsay city

APPENDIX D: NRCS WEB SOIL SURVEY REPORT

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Tulare County, California, Central Part

Lindsay Well 11 Treatment Project

November 30, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:1,680 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Tulare County, California, Central Part
Survey Area Data: Version 17, Aug 31, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 16, 2022—May 30, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
124	Exeter loam, 0 to 2 percent slopes	9.8	78.5%
132	Greenfield sandy loam, 0 to 2 percent slopes	2.7	21.5%
Totals for Area of Interest		**12.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Tulare County, California, Central Part

124—Exeter loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: hkdh
Elevation: 20 to 700 feet
Mean annual precipitation: 7 to 20 inches
Mean annual air temperature: 61 to 64 degrees F
Frost-free period: 250 to 300 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Exeter and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Exeter

Setting

Landform: Terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granitoid

Typical profile

Ap - 0 to 14 inches: loam
Bt - 14 to 30 inches: sandy clay loam
Cqm - 30 to 43 inches: duripan
C1 - 43 to 47 inches: gravelly sand
C2 - 47 to 60 inches: stratified sandy loam to silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 20 to 40 inches to duripan
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: C
Ecological site: R017XY902CA - Duripan Vernal Pools
Hydric soil rating: No

Minor Components

Unnamed, brown subsoil

Percent of map unit: 7 percent
Hydric soil rating: No

San joaquin

Percent of map unit: 7 percent
Hydric soil rating: No

Wyman

Percent of map unit: 7 percent
Hydric soil rating: No

Unnamed, ponded

Percent of map unit: 4 percent
Landform: Depressions
Hydric soil rating: Yes

132—Greenfield sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: hkdr
Elevation: 100 to 3,500 feet
Mean annual precipitation: 9 to 20 inches
Mean annual air temperature: 63 degrees F
Frost-free period: 200 to 300 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Greenfield and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Greenfield

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granitoid

Typical profile

A - 0 to 18 inches: sandy loam
B - 18 to 70 inches: fine sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches

Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: A
Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans
Hydric soil rating: No

Minor Components

Tujunga

Percent of map unit: 5 percent
Hydric soil rating: No

Honcut

Percent of map unit: 5 percent
Hydric soil rating: No

Unnamed, finer subsoil

Percent of map unit: 5 percent
Hydric soil rating: No

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APPENDIX E: NMFS EFH MAPPER

EFH Mapper Report

EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

West Coast Regional Office

EFH

No additional Essential Fish Habitats (EFH) were identified at the report location.

Pacific Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

Atlantic Salmon

No Atlantic Salmon were identified at the report location.

HAPCs

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data. ****For links to all EFH text descriptions see the complete data inventory: open data inventory -->**
Pacific Coastal Pelagic Species, Jack Mackerel, Pacific (Chub) Mackerel, Pacific Sardine, Northern Anchovy - Central Subpopulation, Northern Anchovy - Northern Subpopulation, **Pacific Highly Migratory Species**, Bigeye Thresher Shark - North Pacific, Bluefin Tuna - Pacific, Dolphinfish (Dorado or Mahimahi) - Pacific, Pelagic Thresher Shark - North Pacific, Swordfish - North Pacific

Appendix C: Phase I Cultural Resources Assessment

Phase I Cultural Resources Assessment for the City of Lindsay Well 11 Treatment Project, Lindsay, Tulare County, California

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February 2024

USGS Lindsay 7.5' topographic quadrangle
12.5-acre APE; intensive pedestrian survey
Keywords: Remnant of rural residence foundation (historic archaeological site)

MANAGEMENT SUMMARY

The City of Lindsay (City) is proposing a Well 11 Treatment Plan for approximately 12.5 acres in Lindsay, Tulare County, California. The proposed City of Lindsay Well 11 Treatment Project (Project) includes construction of a perchlorate vessel foundation, nitrate system foundations and evaporation ponds. Additionally, the project will also include installing pretreatment cartridge filters, nitrate treatment system with tanks, resin, controls and softener, on-site piping and upgrade well pump. Taylored Archaeology (Taylored) conducted a Phase I cultural resources assessment for the Project under contract with Provost & Pritchard Consulting Group, in compliance with California Environmental Quality Act (CEQA). The Project is also seeking Drinking Water State Revolving Fund funding, which is partially funded by the US Environmental Protection Agency. Therefore, the Project requires compliance with Section 106 of the National Historic Preservation Act (NHPA).

This report summarizes the methods and results of the cultural resources assessment of the 12.5-acre Area of Potential Effects (APE). In order to assess and determine whether cultural resources are present that could be affected by the proposed Project, this investigation included: (1) a records search from the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System; (2) a request of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) and nongovernmental tribal outreach; (3) archival research; (4) an archaeological pedestrian survey of the APE; and (5) documentation of resources identified with the APE.

A cultural resource records search was requested and conducted by the SSJVIC which reported one prior cultural resources investigation conducted within the APE and no cultural resources recorded within the APE. The SSJVIC also reported that 11 previous cultural resources investigations were conducted, and two historical resources were recorded within a 0.5-mile radius of the APE.

Taylored Archaeology requested a search of the SLF from the NAHC. The SLF search results were negative. The listed Native American representatives were contacted on January 25, 2024. One response was received on February 6, 2024, from Samantha McCarty, Cultural Specialist II, of the Santa Rosa Rancheria Tachi Yokut Tribe. The response stated that Santa Rosa Rancheria will be deferring to tribes more local to the area. No other comments from contacted Native Americans were received as of the date of this report.

The archaeological pedestrian survey was conducted on January 20, 2024. The survey resulted in one previously unrecorded historic archaeological site. The archaeological site consisted of the remnants of a rural residence which was constructed between 1929 to 1946 and demolished between 1984 to 1990. This resource was evaluated and did not meet Criteria 1 through 4 for listing on the California Register of Historic Resources nor Criteria A through D for listing on the National Register of Historic Places. No further cultural resource management is recommended for this resource.

Taylored Archaeology additionally advises the following:

In the event that previously unidentified archaeological remains are encountered during development or ground-moving activities in the APE, all work should be halted until a qualified archaeologist can identify the discovery and assess its significance. In the event of accidental discovery of unidentified archaeological remains during development or ground-moving activities in the APE, all work shall be halted in the immediate vicinity until a qualified archaeologist can identify the discovery and assess its significance.

If human remains are uncovered during construction, the Tulare County Coroner is to be notified to investigate the remains and arrange proper treatment and disposition. If the remains are identified on the basis of archaeological context, age, cultural associations, or biological traits to be those of a Native American, California Health and Safety Code 7050.5 and PRC 5097.98 require that the coroner notify the NAHC within 24 hours of discovery. The NAHC will then identify the Most Likely Descendent who will be afforded an opportunity to make recommendations regarding the treatment and disposition of the remains.

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1
INTRODUCTION

Taylored Archaeology performed a Phase I Cultural Resources Assessment for the City of Lindsay Well 11 Treatment Project (Project) in the city of Lindsay, California in Tulare County, California under contract to Provost & Pritchard Consulting Group. As part of development approval process, the City of Lindsay as lead agency must comply with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] 21000 [g] mandate that government agencies consider the impacts of a project on the environment, including cultural resources. The Project is seeking Drinking Water State Revolving Fund funding, which is partially funded by United States Environmental Protection Agency (USEPA). Therefore, the Project was additionally assessed for effects to historic properties within the Project's Area of Potential Effects (APE) under Section 106 of the National Historic Preservation Act (NHPA).

1.1 PROJECT DESCRIPTION AND LOCATION

The Well 11 Treatment Project proposes to install nitrate and perchlorate treatment processes to the existing Well 11 facility. This includes constructing a perchlorate vessel foundation, nitrate system foundations and evaporation ponds. The proposed Project will also involve installing pretreatment cartridge filters, nitrate treatment system with tanks, resin, controls and softener, on-site piping and well pump upgrades.

The APE for the Project is defined as the area of potential ground disturbance resulting from project activities based upon the project description. The total horizontal APE is approximately 12.5 acres, and the vertical APE is approximately six feet below ground surface.

The Project's APE is approximately 12.5 acres on Assessor's Parcel Numbers 199-140-038, 199-140-048 and -49 and 199-200-028 located at West Mariposa Street in the City of Lindsay, Tulare County, California (Figure 1-1). Lindsay is located approximately 12 miles north of Porterville and 18 miles southeast of Visalia. The APE is on the U.S Geological Survey (USGS) 7.5-minute Lindsay, California, topographic quadrangle in Section 12 of Township 20 South, Range 26 East, Mount Diablo Base and Meridian (Figure 1-2).

1.2 REGULATORY SETTING

In this report "cultural resources" are defined as prehistoric or historical archaeological sites as well as historical objects, buildings, or structures. In accordance with 30 Code of Federal Regulations (CFR) §60.4, "historical" in this report applies to cultural resources which are at least 50 years old. The significance or importance of a cultural resource is dependent upon whether the resource qualifies for inclusion at the local or state level in the California Register of Historical Resources (CRHR), or at the federal level in the National Register of Historic Places (NRHP). Cultural resources that are determined to be eligible for inclusion in the CRHR are called

"historical resources" (California Code of Regulations [CCR] 15064.5[a]). Under this statue the determination of eligibility is partially based on the consideration of the criteria of significance as defined in 14 CCR 15064.5(a)(3). Cultural resources eligible for inclusion in the NRHP are deemed "historic properties".

1.2.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

Pursuant to CEQA, a historical resource is a resource listed in, or determined to be eligible for listing in, the CRHR. Historical resources may include, but are not limited to, "any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically or archaeologically significant" (PRC §5020.1[j]). In addition, a resource included in a local register of historical resources or identified as significant in a local survey conducted in accordance with the state guidelines are also considered historic resources under California Public Resources Code (PRC) Section 5020.1.

CEQA details appropriate measures for the evaluation and protection of cultural resources in §15064.5 of the CEQA Guidelines. According to CEQA guidelines §15064.5 (a)(3), criteria for listing on the CRHR includes the following:

> *(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.*
> *(B) Is associated with the lives of persons important in our past.*
> *(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.*
> *(D) Has yielded, or may be likely to yield, information important in prehistory or history.*

These criteria are known as CRHR Eligibility Criterion 1 through 4. According to CEQA guidelines §21074 (a)(1), criteria for tribal cultural resources includes the following:

> *(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:*
> *(A) included or determined to be eligible for inclusion in the California Register of Historical Resources.*
> *(B) included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.*

Protection of cultural resources within California is additionally regulated by PRC §5097.5, which prohibits destruction, defacing, or removal of any historic or prehistoric cultural features on land under the jurisdiction of State or local authorities.

1.2.2 NATIONAL HISTORIC PRESERVATION ACT OF 1966

The National Historic Preservation Act (NHPA) (16 U.S.C. 470 ET SEQ.) was enacted in 1966 and created a national policy of historic preservation. The law established several programs,

administered by the Secretary of the Interior, to encourage the achievement of preservation goals at local, state, and federal levels. The NHPA authorized the creation and expansion of the National Register of Historic Places (NRHP), formed the position of State Historic Preservation Officer (SHPO), allowed for the creation of State Review Boards to set up methods for local governments to enact the NHPA at a local level, assisted Native American tribes with preserving their heritage, and established the Advisory Council on Historic Preservation (ACHP).

The NHPA established criteria for determining if a historic property is eligible for inclusion in the NRHP. These criteria are set forth in 36 CFR 60.4 as follows:

> *The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and*
>
> *(a) that are associated with events that have made a significant contribution to the broad patterns of our history; or*
>
> *(b) that are associated with the lives of persons significant in our past; or*
>
> *(c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
>
> *(d) that have yielded, or may be likely to yield, information important in prehistory or history.*

1.2.3 SECTION 106 OF NHPA

Section 106 of NHPA states that any federal agency with direct or indirect jurisdiction over federally assisted or proposed federal action will take into account the effect the action will have on any historic property that is on, or eligible to be included in, the NRHP. The NHPA provides the Advisory Council on Historic Preservation and the relevant SHPO the opportunity to provide comment on the federal action in regard to potential impacts to historic properties.

1.3 PROFESSIONAL QUALIFICATIONS

Archaeologist Consuelo Y. Sauls (M.A.), a Registered Professional Archaeologist (RPA 41591505), managed the assessment and compiled this report for the Project. Ms. Sauls also conducted the records search, literature review, requested Sacred Lands File and performed the archaeological pedestrian survey. Ms. Sauls meets the Secretary of the Interior's Standards for Professional Qualifications in Archaeology. Statement of Qualifications for key personnel is provided in Appendix A.

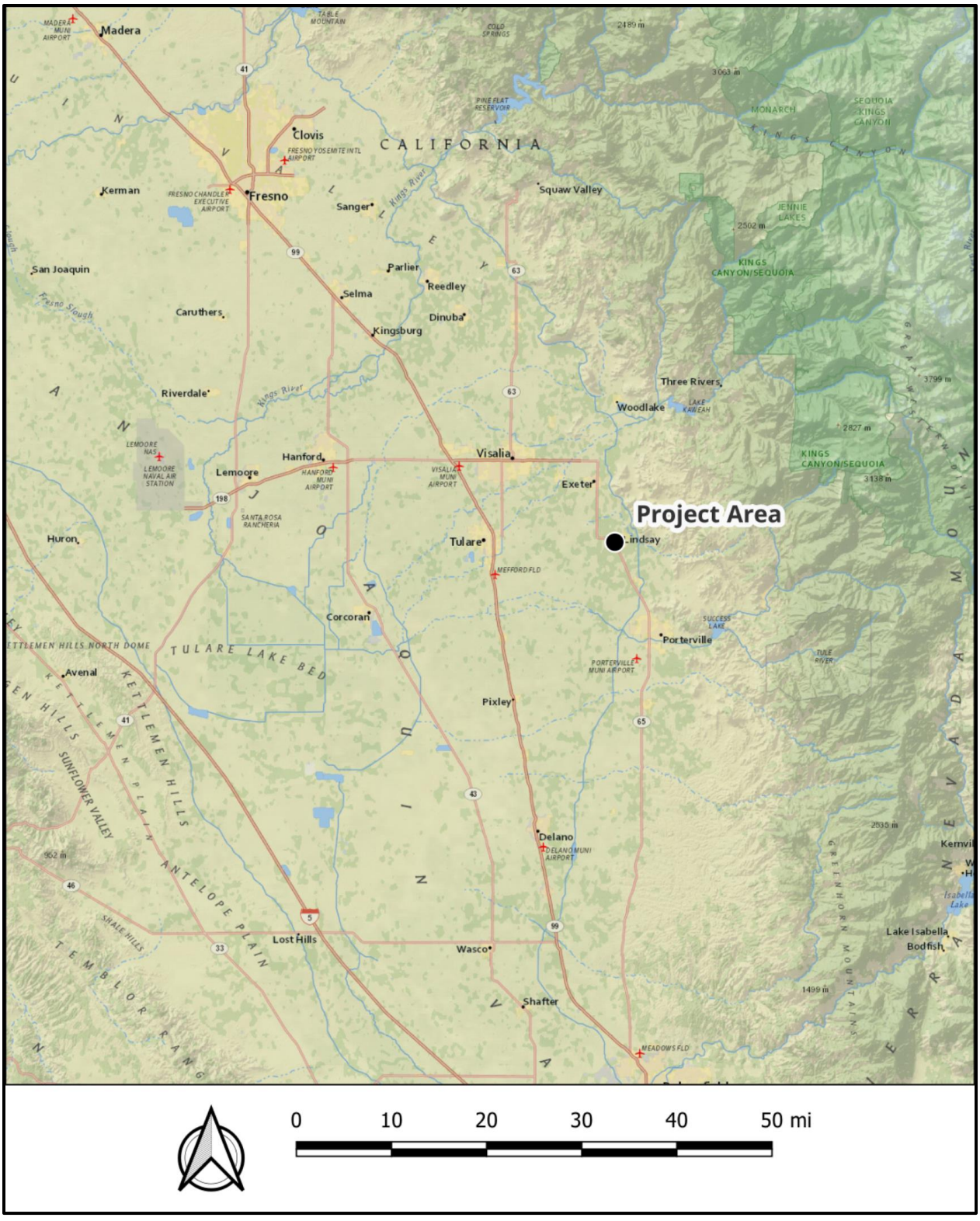

Figure 1-1 Project vicinity in Tulare County, California.

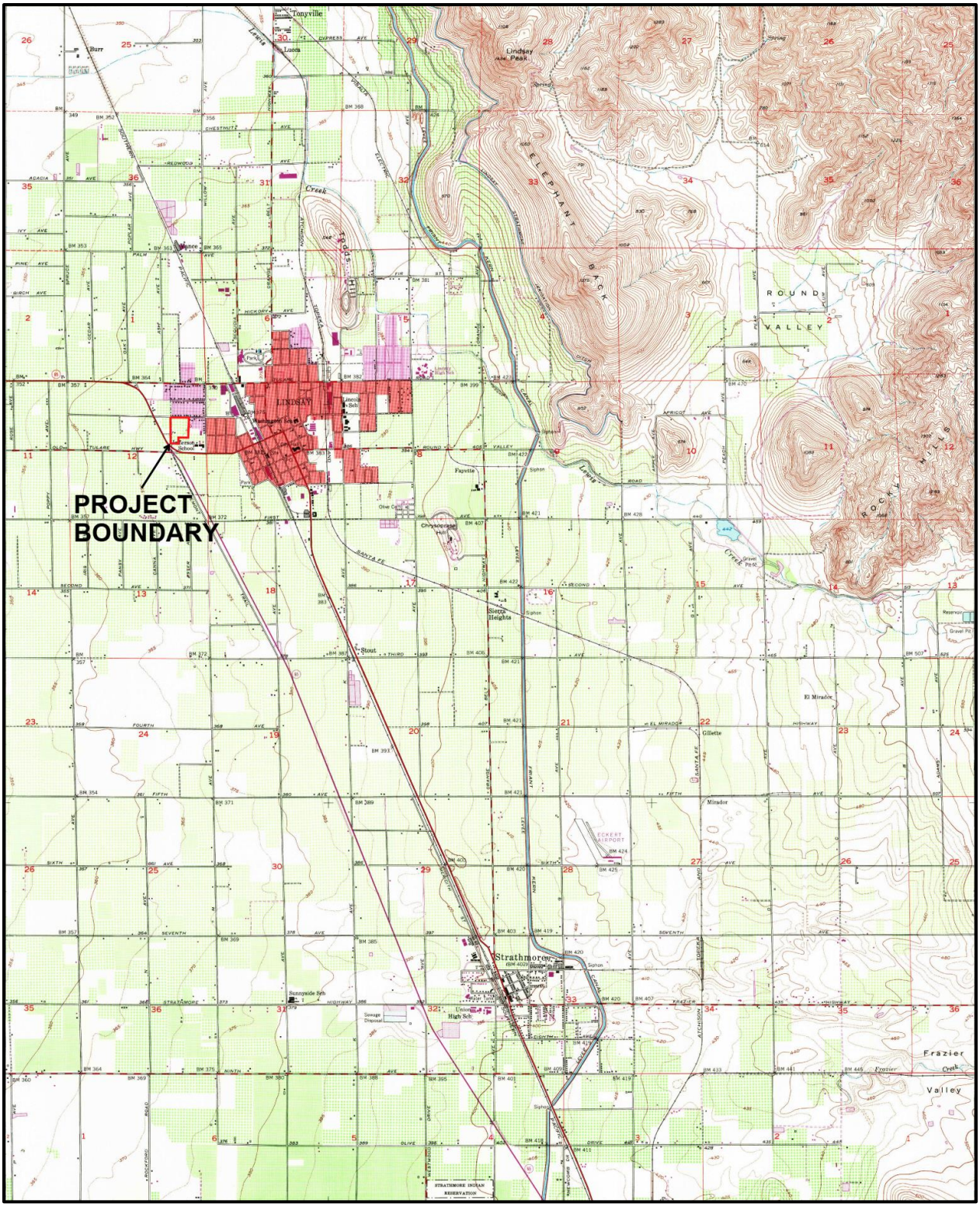

Figure 1-2 Project location on the USGS Lindsay, CA 7.5-minute quadrangle.

Figure 1-3 Aerial view of the APE showing survey coverage.

1.4 REPORT STRUCTURE

This report documents the results of a cultural resource assessment of the proposed Project area. In order to assess potential project impacts to archaeological and historical resources pursuant to CCR §15064.5, the following specific tasks were completed: (1) requesting a records search from the Southern San Joaquin Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS), at California State University, Bakersfield; (2) requesting a Sacred Lands File Search and list of interested parties from the Native American Heritage Commission (NAHC) and initiating outreach to local Native American individuals and tribal representatives; (3) conducting an archaeological pedestrian survey, (4) preparing this technical report and (5) preparing Department of Parks and Recreation (DPR) 523 series record forms.

Taylored Archaeology prepared this report following the California Office of Historic Preservation standards in the 1990 Archaeological Resources Management Report Recommended Contents and Format. Chapter 1 describes the introduction of the Project and its location, and identifies the key personnel involved in this report. Chapter 2 summarizes the Project setting, including the natural, prehistoric, historic, and ethnographic background for the Project area and surrounding area. Chapters 3 details the methods used for cultural records search, archival research, local Native American outreach, and archaeological pedestrian survey. Chapter 4 summarizes the results of the cultural resource investigation. Chapter 5 discusses the Project results and offers management recommendations. Chapter 6 is a bibliography of references cited within this report. The report also contains the following appendices: Qualifications of key personnel (Appendix A), the CHRIS records search results (Appendix B), the NAHC letter of the SLF results (Appendix C) and DPR Forms (Appendix D).

2
PROJECT SETTING

2.1 NATURAL ENVIRONMENT

The Project area lies in the Central Valley of California, which is approximately 450 miles from north to south, and ranges in width east to west from 40 to 60 miles (Prothero 2017). The Central Valley is divided into two subunits, the Sacramento Valley in the north and the San Joaquin Valley in the south, which are each named after the primary rivers within each valley (Madden 2020). The Project is located approximately 370 feet above sea level on the open flat plains at the eastern edge of the Southern San Joaquin Valley. Climate within the San Joaquin valley is classified as a 'hot Mediterranean climate', with hot and dry summers, and cool damp winters characterized by periods of dense fog known as 'tule fog' (Prothero 2017).

The San Joaquin Valley is a comprised of a structural trough created approximately 65 million years ago and is filled with nearly six miles of sediment (Bull 1964). The San Joaquin Valley ranges from Stockton and the San Joaquin-Sacramento River Delta in the north to Wheeler Ridge to the south, ranging nearly 60 miles wide at its widest (Zack 2017). It is split by late Pleistocene alluvial fans between the San Joaquin River hydrologic area in the north and the Tulare Lake Drainage Basin in the south (Rosenthal et al 2007). The Project site is located within the latter of the two hydrologic units. The Kaweah, Tule, Kern, and Kings rivers flowed into large inland lakes with no outflow except in high flood events, in which the lakes would flow through the Fresno Slough into the San Joaquin River. The largest of these inland lakes was the Tulare Lake, which occupied a vast area of Tulare and Kings Counties and was the largest freshwater lake west of the Mississippi. These four rivers in the Tulare Lake Drainage Basin accounted for more than 95 percent of water discharged into Tulare Lake, with the remaining five percent sourced from small drainages originating in the Coast Ranges to the west (Adams et al. 2015).

The Project area is in central Tulare County on the valley floor of the San Joaquin Valley. Before the appearance of agriculture in the nineteenth century, the Project location would have been comprised of prairie grasslands with scattered oak tree savannas near the foothills, and along the various streams and drainages (Preston 1981). Riparian environments would also have been present along various waterways, including drainages and marshes. Native vegetation likely would have consisted of needle grasses and other perennial bunchgrasses before the introduction of non-native species in the 1800s.

The valley floor of the region was largely dominated by marshlands, lakes, and annual grasslands. Historically, these habitats provided a lush environment for large animals, including various migratory birds and other waterfowl, grizzly bear, tule elk, pronghorn, mule deer, black bear, and mountain lion (Preston 1981). Native trees and plants observed in the Project vicinity include various blue, live, and white oaks, cottonwood, and willow. The introduction of agriculture to the region resulted in large animals being forced out of their habitat. Common land mammals now include valley coyote, bobcat, gray fox, kit fox, and rabbits. Rivers and lakes throughout the valley

provide habitat for freshwater fish, including rainbow trout, Sacramento sucker, and Sacramento perch (Preston 1981).

2.2 PREHISTORIC SETTING

Research into San Joaquin Valley prehistory began in the early 1900s with several archaeological investigations (Rosenthal et al. 2007). The Southern San Joaquin Valley is of one of the least understood areas within California due to a lack of well-grounded chronologies for large segments of the valley (Rosenthal et al. 2007). This is largely due to the valley floor being filled with thick alluvial deposits, and from human activity largely disturbing much of the valley floor due to a century and a half of agricultural use (Dillon 2002; Siefken 1999). Mound sites may have occurred as frequently as one every two or three miles along major waterways but studying such mounded occupations sites is difficult as most surface sites have been destroyed (Schenck and Dawson 1929). Much of the early to middle Holocene archaeological sites may be buried as deep as 10 meters due to millennia of erosion and alluvial deposits from the western Sierras (Moratto 1984).

Mass agricultural development has heavily disturbed and changed the landscape of the Southern San Joaquin Valley, from the draining of marshes and the vanishing of the extensive Tulare Lake, to grading nearly the entire valley for agricultural operations (Garone 2011). These activities have impacted or scattered much of the shallow surface deposits and mounds throughout the valley (Rosenthal et al 2007). Some researchers have suggested that potentially as much as 90 percent of all Central California archaeological sites have been destroyed from these activities (Riddell 2002).

The cultural traits and chronologies which are summarized below are largely based upon information discussed in multiple sources, including Bennyhoff and Fredrickson (1973, 1974), Garfinkel (2015), McGuire and Garfinkel (1980), Moratto (1984), and Rosenthal et al. (2007). The most recent comprehensive approach to compiling a chronology of the Southern San Joaquin Valley prehistory is by Garfinkel in 2015, which builds off Rosenthal's 2007 previous work. Both Garfinkel's and Rosenthal's chronologies are calculated in years B.C. In the interest of maintaining cohesiveness with modern anthropological research, the dates of these chronologies have been adapted into years before present (B.P.).

The Paleo-Indian Period (13,500-10,600 cal B.P.) was largely represented by ephemeral lake sites which were characterized by atlatl and spear projectile points. Around 14,000 years ago, California was largely a cooler and wetter place, but with the retreat of continental Pleistocene glaciers, California largely experienced a warming and drying period. Lakes filled with glacial meltwater were located in the valley floor and used by populations of now extinct large game animals. A few prehistoric sites were discovered near the southwestern shore of Tulare Lake (Garfinkel 2015). Foragers appear to have operated in small groups which migrated on a regular basis.

During the Lower Archaic Period (10,500-7450 cal B.P.), climate change created a largely different environment which led to the creation of larger alluvial fans and flood plains. Most of the

archaeological records of the prior period wound up being buried by geological processes. During this time, cultural patterns appear to have emerged between the foothill and valley populations of the local people. The foothill sites were often categorized by dense flaked and ground stone assemblages, while the valley sites were instead characterized by a predominance of crescents and stemmed projectile points. Occupation within the area is represented mostly by isolated discoveries and along the former shoreline of Tulare Lake. Archaeological finds are typically characterized by chipped stone crescents, stemmed points, and other distinctive flakes stone artifacts (Rosenthal et al. 2007). Variations in consumption patterns emerged as well, with the valley sites more marked by consumption of waterfowl, mussels, and freshwater fish, while the foothills sites saw an increase in nuts, seeds, and a more narrowly focused diet than the valley sites.

The Middle Archaic (7450-2500 cal B.P.) saw an increase in semi-permanent villages along river and creek settings, with more permanent sites located along lakes with a more stable supply of water and wildlife. Due to the warmer and drier weather of this period, many lakes within the valley dramatically reduced in size, while some vanished completely (Garone 2011). Cultural patterns during this time saw an increase in stone tools, while a growth in shell beads, ornaments, and obsidian evidence an extensive and ever-growing long-distance trade network. Little is known of cultural patterns in the valley during the Upper Archaic (2500-850 B.P.), but large village structures appeared to be more common around local rivers. An overall reduction of projectile point size suggests changing bow and arrow technologies. Finally, the Emergent Period (850 cal B.P. - Historic Era) was generally marked by an ever-increasing specialization in tools, and the bow and arrow generally replaced the dominance of the dart and atlatl. Cultural traditions ancestral to those recorded during ethnographic research in the early 1900s are identifiable.

2.3 ETHNOGRAPHY

The APE is in the Southern Valley Yokuts ethnographic territory of the San Joaquin Valley. The Yokuts were generally divided into three major groups, the Northern Valley Yokuts, the Southern Valley Yokuts, and the Foothill Yokuts. The Yokuts are a sub-group of the Penutian language that covers much of coastal and central California and Oregon (Callaghan 1958). The Yokuts language contained multiple dialects spoken throughout the region, though many of them were mutually understandable (Merriam 1904).

The Yokuts have been extensively researched and recorded by ethnographers, including Powers (1877), Kroeber (1925), Gifford and Schenck (1926, 1929), Gayton (1930, 1945), Driver (1937), Harrington (1957), Latta (1977), and Wallace (1978). Much of the research from these ethnographers focuses on the central Yokuts tribes due to the northernmost tribes being impacted by Euro-Americans during the California Gold Rush of the mid 1800s, and by the southernmost tribes often being removed and relocated by the Spanish to various Bay Area or coastal missions. The central Yokuts tribes, and especially the western Sierra Nevada foothill tribes, were the most intact at the time of ethnographic study.

The most detailed ethnographic information gathered regarding Native American group territories in Central California is located within maps prepared by Kroeber. The information presented in Kroeber's map of Southern and Central Yokuts shows the Project area within the Koyeti Yokuts territory (1925: Plate 47). The main village for this area was *Chokowisho*, which was approximately 10 miles to the southeast of the APE along the Tule River (Kroeber 1925). Primary Yokuts villages were typically located along lakeshores and major stream courses, with scattered secondary or temporary camps and settlements located near gathering areas in the foothills. Yokuts were organized into local tribes, with one or more linked villages and smaller settlements within a territory (Kroeber 1925).

Each local tribe was a land-owning group that was organized around a central village and shared common territory and ancestry. Most local tribe populations ranged from 150 to 500 people (Kroeber 1925). These local tribes were often led by a chief, who was often advised by a variety of assistants including the winatum, who served as a messenger and assistant chief (Gayton 1930). Early studies by Kroeber (1925), Gifford and Schenck (1926), and Gayton (1930) concluded that social and political authority within local tribes was derived from male lineage and patriarchy. However, more recent reexaminations (Dick-Bissonnette 1998) argue that this assumption of patriarchal organization was based on male bias by early 20th century researchers, and instead Yokuts sociopolitical authority was matriarchal in nature and centered around matrilineal use-rights and women's work groups.

Prior to Euro-American contact, there was abundance of natural resources within the greater Tulare Lake area. Due to these resources, Yokuts maintained some of the largest populations in North America west of the continental divide (Cook 1955a).

2.4 HISTORIC SETTING

2.4.1 California History

European contact in modern-day California first occurred in 1542 with the arrival of a Spanish expedition lead by Juan Rodríguez Cabrillo into San Diego Bay (Engstrand 1997). Expeditions along the California coast continued throughout the sixteenth century and primarily focused on finding favorable harbors for further expansion and trade across the Pacific. However, rocky shorelines, unfavorable currents, and wind conditions made traveling north from New Spain to the upper California coast a difficult and time-consuming journey (Eifler 2017). The topography of California, with high mountains, large deserts, and few natural harbors lead to European expansion into California only starting in the 1760s. As British and Russian expansion through fur trading encroached on California from the north, Spain established a system of presidios, pueblos, and missions along the California coast to defend its claim, starting with Mission San Diego de Alcalá in 1769 (Engstrand 1997).

2.4.2 Central California History

The San Joaquin Valley did not experience contact with Europeans until the late 1700s (Starr 2007). Life at the California missions was hard and brutal for Native Americans, with many dying of disease, poor conditions, and many fleeing to areas not under direct Spanish control (Jackson and Castillo 1995). The earliest exploration of the San Joaquin Valley by Europeans was likely by the Spaniards when in the fall of 1772 a group known as the Catalonian Volunteers entered the valley through Tejon Pass in search of deserters from the Southern California Missions (Zack 2017). However, the group only made it as far north as Buena Vista Lake in modern day Kern County before turning around due to the extensive swamps. Additional excursions to the valley were for exploration such as those led by Lieutenant Bariel Moraga in 1806, but also to find sites for suitable mission sites and to track down Native Americans fleeing the coastal missions (Cook 1958).

Subsequent expeditions were also sent to pursue outlaws from the coast who would often flee to the valley for safety. One of the subsequent explorations was an expedition in 1814 to 1815 with Sargent Juan Ortega and Father Juan Cabot, who left the Mission San Miguel with a company of approximately 30 Spanish soldiers and explored the San Joaquin Valley (Smith 2004). This expedition passed through the Kaweah Delta and modern-day Visalia and made a recommendation to establish a mission near modern-day Visalia. However, with European contact also came European disease. Malaria and other new diseases were brought by Europeans, and in 1833 an epidemic of unknown origin traveled throughout the Central Valley. Some estimates place the Native American mortality of the epidemic as high as 75 percent (Cook 1955b). Combined with the rapid expansion of Americans into California in 1848 during the Gold Rush, Native American populations within the valley never fully recovered (Eifler 2017).

Initial settlement within the valley by Europeans in the 1830s was largely either by trappers or horse thieves (Clough and Secrest 1984). In fact, horse and other livestock theft was so rampant that ranching operations on the Rancho Laguna de Tache by the Kings River and Rancho del San Joaquin Rancho along the San Joaquin River could not be properly established (Cook 1962). With the end of the Mexican American War and the beginning of the gold rush in 1848, the San Joaquin Valley became more populated with ranchers and prospectors. Most prospectors traveled by sea to San Francisco and used rivers ranging from the Sacramento River to the San Joaquin River to access the California interior (Eifler 2017). Most areas south of the San Joaquin River were less settled simply because those rivers did not connect to the San Francisco Bay area except in wet flood years. By 1850, California became a state and Tulare County was established in 1853.

2.4.3 Local History

The City of Lindsay is located within central Tulare County, and its history is heavily influenced by the local railroad, agriculture, and irrigation. The city is situated in the very center of the most extensively developed section of Tulare's County's orange belt.

The Southern Pacific Railroad was extended from Fresno into Tulare County in the early 1870s (Small 1926). By 1874, branch railroad connections were built to agricultural communities

(Mitchell 1974). In 1888 a branch of the Southern Pacific railroad was completed, and Lindsay was made a station, though the depot was not constructed until 1890 (Menefee and Dodge 1913). Lindsay was incorporated as a city in 1910 (Menefee and Dodge 1913).

The construction of the rail line also brought an increase in agriculture and farms, which clashed with existing ranching operations in the local area. Escalating conflicts and livestock disputes between ranchers and farmers lead to the "No Fence Law" in 1874, which forced ranchers to pay for crop and property damage caused by their cattle (Ludeke 1980). With the passage of this law and the expansion of irrigation systems, predominant land use in the 1870s switched from grazing to farming (Mitchell 1974). This led to the beginning of the vast change of the San Joaquin Valley from native vegetation and grasslands to irrigated crops (Varner and Stuart 1975).

Water rights within California originally arose from the 'first come first serve' policy of the Gold Rush era. Diverting surface water to farms became big business but was a convoluted mess of customs, traditions, and conflicting claims (Zack 2017). Fed up with the situation, small farmers gathered behind Modesto lawyer C.C. Wright, who was elected to the California legislature in 1887 on the platform of taking water rights from large estates and putting it in the power of community-controlled irrigation districts (Hundley 1992). To solve this mess, the Wright Act of 1887 was passed that allowed residents to petition a local county board of supervisors to create irrigation districts that had the power to issues bonds, and tax land within the district boundaries to pay for the creation and maintenance of canals and ditches for irrigation purposes.

At the same time as the Wright Act, an important step forward was made in ditch-digging technology that allowed irrigation systems to be built at a faster pace. From the 1840s to 1890s, farm ditches and canals were largely constructed through the use of buckboards and slip-scoops, which involved the use of a board pulled by horses in an uprights position in order to level ground (Bulls 2010). Between 1883 and 1885, Scottish immigrant James Porteous had moved to Fresno and made significant improvements to the buckboard style scraper that allowed the new scraper to be pulled by two horses and scrape and move soil while dumping it at a controlled depth. This new design was patented and sold as the "Fresno Scraper", which lead to an explosion of ditch digging efforts within the San Joaquin Valley (Zack 2017).

3
METHODS

3.1 RECORDS SEARCH

On January 16, 2024, Taylored Archaeology requested a cultural resource records search from the SSJVIC of the CHRIS at California State University in Bakersfield, California. The purpose of this request was to identify and review prior cultural resource investigations completed in or near the APE and identify any prehistoric or historical resources that had been previously recorded within the APE and a 0.5-mile radius of the surrounding area. SSJVIC staff researched historical USGS topographic maps, reports of previous cultural resource investigations, archaeological site and survey base maps, DPR forms as well as listings of the Historic Properties Directory of the Office of Historic Preservation, General Land Office Maps, Archaeological Resources Directory, and the California Inventory of Historic Resources (Appendix B).

3.2 ARCHIVAL RESEARCH

Archival research was conducted to investigate the historical background for any potential archaeological deposits, historical deposits or built environment properties that may exist in the APE. Historical maps, historical aerial photographs, historical USGS topographic maps, Google Street View photos, books, scholarly articles, and other records were used to better understand the prehistory and history of the APE and surrounding area. Research data was used to identify potential areas within the APE where archaeological deposits may exist, or historical buildings, structures or objects may exist. The results of this research are presented in Chapter 4.

3.3 NATIVE AMERICAN OUTREACH

Taylored Archaeology sent a request to the NAHC as part of this archaeological survey report for a Sacred Lands File (SLF) search on January 3, 2024. The objective of the SLF search was to identify any known places of spiritual, sacred activity or traditional use or gathering areas are present in or near the APE. The NAHC responded via email on January 11, 2024, with a letter including contact information for local Native American tribal representatives who may have knowledge or interest in sharing information about the APE and surrounding area. Each Native American representative listed was sent on January 25, 2024, a nongovernmental outreach letter via email or certified mail to those who may not have an email address and a map notifying them of the Project and asking if they had any knowledge of the Project area or surrounding vicinity. Follow-up communication was performed via email or phone call as appropriate. The SLF results are in Chapter 4.

3.4 ARCHAEOLOGICAL PEDESTRIAN SURVEY

An intensive pedestrian survey was conducted by archaeologist Consuelo Sauls on January 20, 2024, of all accessible portions of the APE. Field methods consisted of a pedestrian survey whereby the ground surface was inspected while walking a series of transects over the entire

surveyed area. Ms. Sauls walked a 5 meter transect within the APE. Transects were periodically deviated from to locate and focus on areas with improved ground surface visibility. Trowels were occasionally used to clear small areas of vegetation to observe the surface and to inspect rodent burrow soil piles. All but 3.5 acres (28 percent) of the APE was accessible and surveyed to identify any archaeological deposits that may be present on the ground surface. Ms. Sauls used a plan map, visible landmarks, and Gaia GPS application for navigation to locate and survey the APE. Ms. Sauls visually inspected and photographed the exposed ground surface of the project site using an iPhone 11 Pro digital camera and recorded her observations on a Survey Field Record and compiled a Photographic Record.

4
RESULTS

4.1 RECORDS SEARCH

The SSJVIC responded to Taylored Archaeology's records search request on January 16, 2024, and provided a letter with the results of previous cultural studies conducted, and cultural resources recorded within the APE and within a 0.5-mile radius of the APE (Records Search File No. 24-011; Appendix B). The records search indicated one prior cultural study report conducted that was conducted within the APE (Table 4-1), and 11 cultural study reports done within the 0.5-mile surrounding area (Table 4-2). The records search also stated that there are no cultural resources previously recorded within the APE. However, two cultural resources (P-54-004626 and CHL-471) were previously recorded within 0.5-mile radius of the APE (Table 4-3). P-54-004626 is a long railroad segment of the Southern Pacific Railroad, which was evaluated in 2020, and was recommended as not NRHP or CRHR significant or eligible (Azpitarte 2020). CHL-471 is a Historical Point of Interest plaque by the California State Park Commission commemorating the Fremont Trail and the Butterfield Stage Route along present-day Highway 65.

Table 4-1 Previous Cultural Resources Investigation Reports within the APE

Report Number	Author(s)	Date	Report Title	Study
TU-01673	Steven Ptomey	2004	Historic Property Survey Report for the Tulare Expressway Project on State Route 65, Tulare County, California	Historic Property Field Survey

Table 4-2 Previous Cultural Resources Investigation Reports within 0.5-mile radius of the APE

Report Number	Author(s)	Date	Report Title	Study
TU-00010	Kristina C. Roper and Sheri Ahlborg	1997	Negative Archaeological Survey Report for 06-Tul-65 29.5/32.0, 06-Tul-137 27.0/27.4 Overlay and Widening	Archaeological Field Survey
TU-00441	Lynn Riley	1988	Negative Archaeological Survey Report for the Intersection of Route 65 and Oak Street	Archaeological Field Survey

Report Number	Author(s)	Date	Report Title	Study
TU-00691	Lawrence E. Weigel	1988	Negative Archaeological Survey Report for Proposed Project Plans to Widen a 7.6 Mile Portion of State Route 65 to a Four Lane Expressway With a 40 Foot Median	Archaeological Field Survey
TU-00951	Jim Fisher	1998	Historic Resource Evaluation Report for Cairns Corner Near Lindsay, Tulare County	Architectural/Historical Evaluation
TU-01103	Lorna Billat	2001	Nextel Site No. CA-1929C / Lindsay	Architectural/Historical Field Survey
TU-01181	Estella Villacorta	2002	Section 106 Review for the Cricket Comfortable Wireless Site: Lindsay - VIS-027-A, Lindsay, California 93247	Archaeological Field Survey
TU-01301	Lorna Billat	2006	New Tower Submission Packet, FCC Form 620, for DT Lindsay Yard, SC-10136B	Archaeological Field Survey
TU-01331	Melinda A. Peak	2007	Determination of Eligibility and Effect for the Lindsay Senior Apartments Project, City of Lindsay, California	Architectural/Historical Evaluation
TU-01337	Robert E. Parr	2008	Archaeological Assessment of 14 Deteriorated Power Poles on the Southern California Edison Counts 2.4kV and Cairns, Cattle, Lewis, and Rosedale 12kV Circuits, Tulare County, California	Archaeological Field Survey
TU-01598	Susan M. Fry	2007	National Historic Preservation Act Section 106 Consultation for Abandonment of Federal Land near Lindsay, Tulare County, California	Architectural/Historical Field Survey
TU-01840	Scott M. Hudlow	2018	A Cultural Resource Survey for Self-Help Enterprises, Lindsay Comprehensive Housing Project, City of Lindsay, California	Archaeological and Architectural/Historical Field Study

Table 4-3 Previous Recorded Cultural Resources within 0.5-mile radius of the APE

Resource Number	Age Association	Resource Type	Resource Description	Resource Within APE
P-54-004626	Historic	Site	Southern Pacific Railroad	No
CHL 471	Historic	Monument	Butterfield Stage Route – A plaque placed by the California State Park Commission in Cooperation with the Tulare County Historical Society	No

4.2 ARCHIVAL RESEARCH

Historical map coverage of the APE began in 1885. A review of an 1885 irrigation map of the Fresno to Porterville region shows the APE within Section 12 with a road or rail line running through the section (Hammond 1885). Section 12 is shown as owned by a "Jacobs". An 1892 survey map of Tulare County identified all of Section 12 as owned by a "Geo S. Patton" (Thompson 1892). Available historical USGS topographic map coverage of the APE begins in 1928 (NETROnline; USGS). No structures are depicted within the APE in 1928. The 1951 topographic map depicts the APE as an orchard with a single structure (USGS, Figure 4-1). Topographic maps from 1964 and 1971 depict the same orchard and structure within the APE.

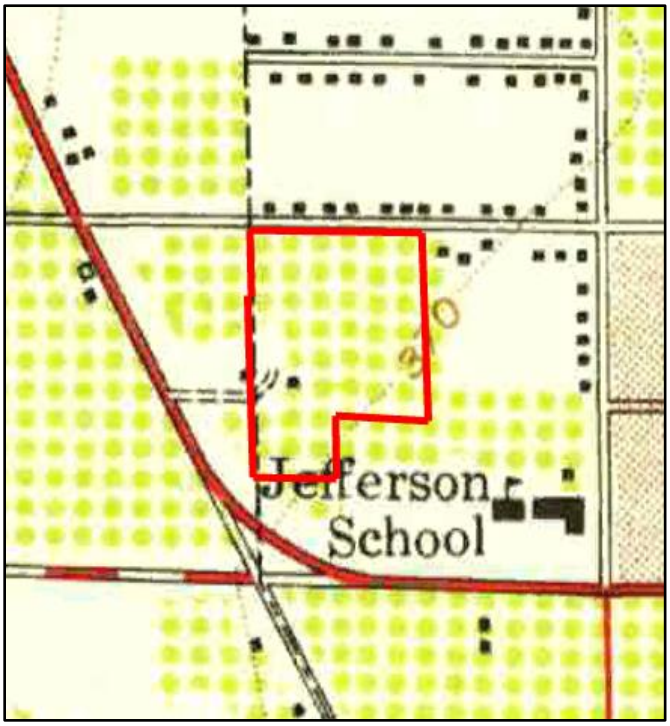

Figure 4-1 1951 USGS Topographic Map, APE in Red.

Historic aerial photograph coverage of the APE began in 1946. The 1946 historic aerial photograph of the APE shows most of the APE as an orchard with a rural residence and multiple outbuildings in the southwestern portion similar to the 1952 and 1956 topographic maps (USAAA 1946, NETROnline, Figure 4-2).

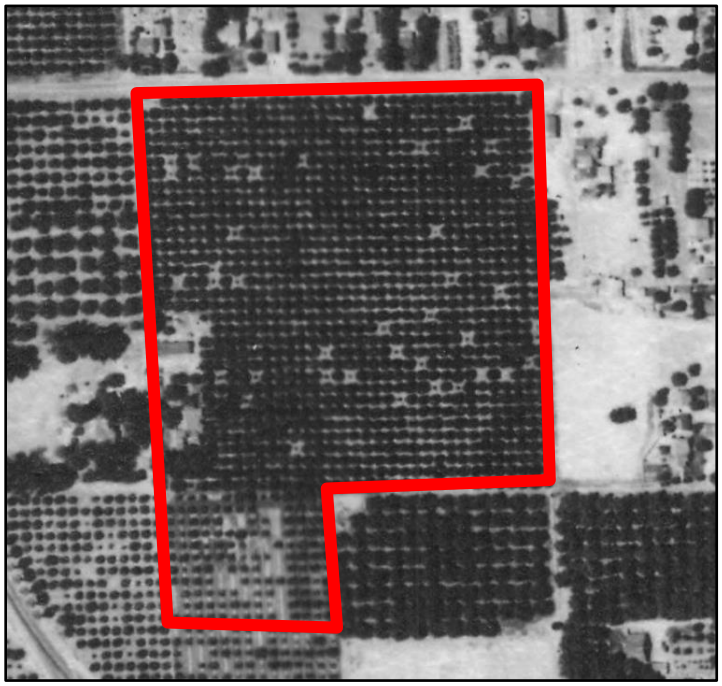

Figure 4-2 1946 Aerial Photograph, APE in Red.

Historic aerial photographs from 1956 and 1969 show a similar setting within the APE. An aerial photograph from 1984 depicts the orchard removed and a water basin covering most of the APE with the rural residence and outbuildings still largely intact in the southwest portion of the APE (NETROnline). By 1990 the APE appears similar to its present-day configuration with the water basin and the rural residence demolished (Caltrans 1990, Figure 4-3).

Figure 4-3 1990 Aerial Photograph, APE in Red, Rural Residence in Yellow.

Historical aerial photographs from 1992 to 2024 depict no significant changes within the APE (Google Earth, NETROnline). Based upon available archival research, the rural residence within the APE appears to have been constructed between 1929 and 1946 and demolished sometime between 1984 and 1990.

The site is currently owned by the City of Lindsay and has no current address. A review of available property ownership records did not reveal any information of prior ownership or historical addresses.

4.3 NATIVE AMERICAN OUTREACH

The NAHC responded on January 11, 2024, via letter regarding Taylored Archaeology's request. The letter stated a search of the SLF was negative. The NAHC supplied a list of seven Native American representatives to contact for information or knowledge of cultural resources in the APE and the surrounding area (Appendix C).

The following Native American organizations/individuals were contacted from the list provided by NAHC below:

1. Cultural Specialist I Nicole Escalon of the Santa Rosa Rancheria Tachi Yokut Tribe;
2. Tribal Historic Preservation Officer Shana Powers of the Santa Rosa Rancheria Tachi Yokut Tribe;
3. Cultural Specialist II Samantha McCarty of the Santa Rosa Rancheria Tachi Yokut Tribe;
4. Chairperson Neil Peyron of the Tule River Indian Tribe;
5. Environmental Department Kerri Vera of the Tule River Tribe;
6. Tribal Archaeologist Joey Garfield of the Tule River Indian Tribe; and
7. Chairperson Kenneth Woodrow of the Wuksache Indian Tribe/Eshom Valley Band.

The outreach letters were sent to all the Native American representatives on the contact list on January 25, 2024 (Appendix C). The letters included a description of the proposed Project and a topographic map of the location. Follow-up by emails were sent on February 6, 2024.

One Native American organization responded. Samantha McCarty, Cultural Specialist II of the Santa Rosa Rancheria Tachi-Yokut Tribe, responded by email stating that due to the location of the project, they will be deferring to tribes that are more local to the area (Appendix C).

As of the date of this report, no other responses were received by the tribal representatives, nor was any information shared regarding tribal cultural resources pertaining to the APE.

4.4 ARCHAEOLOGICAL PEDESTRIAN SURVEY RESULTS

An intensive pedestrian survey of the APE was conducted by Taylored Archaeology on January 20, 2024. All but 3.5 acres (28 percent) of the APE were accessible and surveyed systematically (Figure 4-4). The APE consisted of a stormwater basin and municipal well within the northern three-quarters of the APE, and an empty field in the southwestern quarter of the APE. The natural topography of the area within the APE was previously altered by human development. The surrounding land uses included orchards, empty fields, commercial buildings, an elementary school, and residences. The bottom of the stormwater basin in the center of the APE was inaccessible due to stormwater and muddy conditions. The perimeter of the APE was enclosed within a chain-link fence, and the APE was partitioned between the empty field and the stormwater basin by an additional chain-link fence. The perimeter of the stormwater basin consisted of a dirt access road with annual grasses and scattered vegetation (Figure 4-5). Well 11 and a storage tank were observed along the northern central boundary of the APE (Figure 4-6).

A circa 1940s historic archaeological site was observed in the central western portion of the APE (Figure 4-7). The historic archaeological site consisted of the foundations and concrete pad of a demolished rural residence (Figure 4-8). Dirt, grass, and modern refuse were observed within the center of the site. The remnants of the foundations do not meet Criteria 1 through 4 for listing on the CRHR nor Criteria A through D for listing on the NRHP. DPR 523 cultural resources record forms documenting the historic archaeological resource are included in Appendix D.

Figure 4-4 Survey Coverage Map.

Figure 4-5 Perimeter of stormwater basin, facing north.

Figure 4-6 Well 11 and Tank, facing southeast.

Figure 4-7 Foundations of demolished circa 1930-1940s rural residence, facing south.

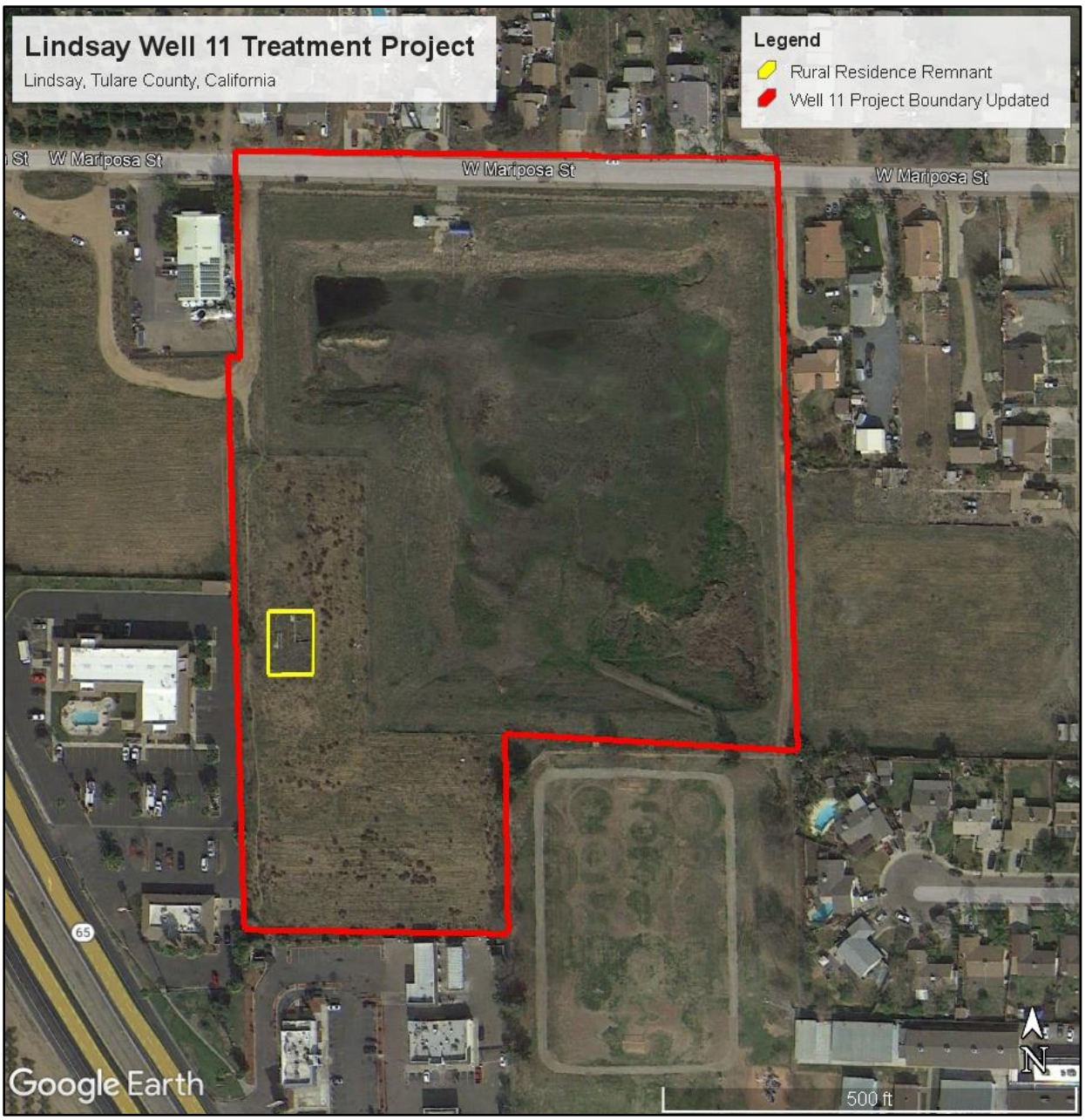

Figure 4-8 APE with Historic Archaeological Site in Yellow.

At the time of the survey, the ground surface visibility ranged from poor to excellent (0 to 100 percent). The visibility was excellent among dirt roads, patchy areas with no vegetation, and rodent burrows. Visibility was poor around the perimeter of the basin and in the open field south of the basin due to thick vegetation. A pile of large pieces of concrete and asphalt was observed in the southwestern portion of the APE. Modern debris was identified throughout the APE.

No other archaeological materials or features (e.g., lithic debitage, artifacts, or other evidence of prehistoric occupation) were observed throughout the ground surface of the APE. While past agricultural activities may have potentially destroyed or obscured ground surface evidence of archaeological resources within the APE, intact archaeological resources related to prior occupation of the area may potentially exist below the ground surface.

5
CONCLUSIONS AND RECOMMENDATION

Taylored Archaeology performed a Phase I Cultural Resources Assessment for the City of Lindsay Well 11 Treatment Project.

The SSJVIC reported one prior cultural resources investigation conducted within the APE and no cultural resources recorded within the APE. The SSJVIC also reported that 11 previous cultural resources investigations were conducted, and two historical resources were recorded, within a 0.5-mile radius of the APE.

The NAHC's Sacred Lands File search results were negative, and outreach with Native American representatives did not result in any indication of archaeological sites or tribal cultural resources in the APE. One comment was received from the Santa Rosa Rancheria Tachi Yokut Tribe, which stated the tribe will be deferring to tribes more local to the area. No other comments from contacted Native Americans were received.

As a result of archival research and an intensive pedestrian survey, a historic period archaeological resource was documented within the APE. The resource consists of the remnants of a residential structure which was constructed between 1929 to 1946 and demolished between 1984 to 1990. This resource was evaluated and does not meet Criteria 1 through 4 for listing on the CRHR nor Criteria A through D for listing on the NRHP. No further cultural resource management is recommended for this resource.

Taylored Archaeology additionally advises the following:

In the event that previously unidentified archaeological remains are encountered during development or ground-moving activities in the APE, all work should be halted until a qualified archaeologist can identify the discovery and assess its significance. In the event of accidental discovery of unidentified archaeological remains during development or ground-moving activities in the APE, all work shall be halted in the immediate vicinity until a qualified archaeologist can identify the discovery and assess its significance.

If human remains are uncovered during construction, the Tulare County Coroner is to be notified to investigate the remains and arrange proper treatment and disposition. If the remains are identified on the basis of archaeological context, age, cultural associations, or biological traits to be those of a Native American, California Health and Safety Code 7050.5 and PRC 5097.98 require that the coroner notify the NAHC within 24 hours of discovery. The NAHC will then identify the Most Likely Descendent who will be afforded an opportunity to make recommendations regarding the treatment and disposition of the remains.

6
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APPENDIX A

Personnel Qualifications

Consuelo Sauls, M.A., RPA 41591505
Archaeologist
csaulsarchaeo@gmail.com
559.797.1572

Areas of Expertise

- Cultural Resource Management
- CEQA and Federal regulations
- Prehistoric Archaeology
- Laboratory Management
- Technical Writing
- Phase I Assessments

Years of Experience

- 14

Education

- M.A., Archaeology, University of Durham, 2014
- B.A., Anthropology, California State University, Fresno, 2009

Registrations/Certifications

- Registered Professional Archaeologist 41591505

Professional Affiliations

- Coalition for Diversity in California Archaeology
- Society for American Archaeology
- Society for California Archaeology
- Society of Black Archaeologists

Professional Experience

2019 –Present Principal Investigator, Taylored Archaeology, Fresno, California

2018 – 2019 Staff Archaeologist, Applied EarthWorks, Inc., Fresno, California

2016 – 2018 Principal Investigator, Soar Environmental Consulting, Inc., Fresno, California

2015 Archivist/Database Technician, Development and Conservation Management, Inc., Laguna Beach, California

2013 Laboratory Research Assistant, Durham University Archaeology Department and Archaeology Museum, Durham, England, UK

2011 – 2012 Laboratory Technician, University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, Pennsylvania

2008 – 2009 Laboratory Technician, California State University, Fresno

2008 Field School, California State University, Fresno

Technical Qualifications

Ms. Sauls meets the Secretary of the Interior's Professional Qualification Standards as an archaeologist. She has conducted pedestrian surveys, supervised Extended Phase I survey, authored technical reports, and completed the Section 106 process with the State Historic Preservation Officer and Tribal Historic Preservation Officer. Her experience includes data recovery excavation at Western Mono sites and processing recovered artifacts in the laboratory as well as conducting archival research about prehistory and ethnography of Central California. Ms. Sauls has authored and contributed to technical and letter reports in compliance with of the National Historical Preservation Act (NHPA) Section 106 and the California Environmental Quality Act (CEQA). She also has supported NHPA tribal consultation and responded to Assembly Bill 52 tribal comments. Ms. Sauls also has an extensive background supervising laboratory processing, cataloging, and conservation of prehistoric and historical archaeological collections. In addition, she worked with the Rock Art Heritage Group in the management, preservation, and presentation of rock art in museums throughout England, including a thorough analysis of the British Museum's rock art collections. At Durham University Archaeology Museum, Ms. Sauls processed the excavated skeletal remains of 30 individuals from the seventeenth century.

APPENDIX B

Records Search Results

California Historical Resources Information System

Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

1/16/2024

Consuelo Sauls
Taylored Archaeology
6083 N. Figarden Drive, Suite 616
Fresno, CA 93722

Re: Lindsay Well 11 TA Project
Records Search File No.: 24-011

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on the Lindsay USGS 7.5' quad. The following reflects the results of the records search for the project area and the 0.5 mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☒ custom GIS maps ☐ GIS data

Resources within project area:	None
Resources within 0.5 mile radius	P-54-004626, CHL 471
Reports within project area:	TU-01673
Reports within 0.5 mile radius:	TU-00010, 00441, 00691, 00951, 01103, 01181, 01301, 01331, 01337, 01598, 01840

Resource Database Printout (list):	☒ enclosed ☐ not requested ☐ nothing listed
Resource Database Printout (details):	☒ enclosed ☐ not requested ☐ nothing listed
Resource Digital Database Records:	☒ enclosed ☐ not requested ☐ nothing listed
Report Database Printout (list):	☒ enclosed ☐ not requested ☐ nothing listed
Report Database Printout (details):	☒ enclosed ☐ not requested ☐ nothing listed
Report Digital Database Records:	☒ enclosed ☐ not requested ☐ nothing listed
Resource Record Copies:	☒ enclosed ☐ not requested ☐ nothing listed
Report Copies:	☒ enclosed ☐ not requested ☐ nothing listed
OHP Built Environment Resources Directory:	☐ enclosed ☐ not requested ☒ nothing listed
Archaeological Determinations of Eligibility:	☒ enclosed ☐ not requested ☐ nothing listed
CA Inventory of Historic Resources (1976):	☒ enclosed ☐ not requested ☐ nothing listed

Caltrans Bridge Survey: Not available at SSJVIC; please see https://dot.ca.gov/programs/environmental-analysis/cultural-studies/california-historical-bridges-tunnels

Ethnographic Information: Not available at SSJVIC

Historical Literature: Not available at SSJVIC

Historical Maps: Not available at SSJVIC; please see http://historicalmaps.arcgis.com/usgs/

Local Inventories: Not available at SSJVIC

GLO and/or Rancho Plat Maps: Not available at SSJVIC; please see http://www.glorecords.blm.gov/search/default.aspx#searchTabIndex=0&searchByTypeIndex=1 and/or http://www.oac.cdlib.org/view?docId=hb8489p15p;developer=local;style=oac4;doc.view=items

Shipwreck Inventory: Not available at SSJVIC; please see https://www.slc.ca.gov/shipwrecks/

Soil Survey Maps: Not available at SSJVIC; please see http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Jeremy E David
Assistant Coordinator

APPENDIX C

Native American Outreach

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

January 11, 2024

Consuelo Sauls
Taylored Archaeology

Via Email to: ***csaulsarchaeo@gmail.com***

Re: Lindsay Well 11 Project, Tulare County

Dear Mr. Sauls:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Cameron.vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Tulare County
1/11/2024

County	Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Tulare	Santa Rosa Rancheria Tachi Yokut Tribe	F	Shana Powers, THPO	P.O. Box 8 Lemoore, CA, 93245	(559) 423-3900		spowers@tachi-yokut-nsn.gov	Southern Valley Yokut	Fresno,Kern,Kings,Merced,Monterey,San Benito,San Luis Obispo,Tulare	10/3/2023
	Santa Rosa Rancheria Tachi Yokut Tribe	F	Nichole Escalon, Cultural Specialist I	P.O. Box 8 Lemoore, CA, 93245	(559) 924-1278		nescalone@tachi-yokut-nsn.gov	Southern Valley Yokut	Fresno,Kern,Kings,Merced,Monterey,San Benito,San Luis Obispo,Tulare	10/3/2023
	Santa Rosa Rancheria Tachi Yokut Tribe	F	Samantha McCarty, Cultural Specialist II	P.O. Box 8 Lemoore, CA, 93245	(559) 633-3440		smccarty@tachi-yokut-nsn.gov	Southern Valley Yokut	Fresno,Kern,Kings,Merced,Monterey,San Benito,San Luis Obispo,Tulare	10/3/2023
	Tule River Indian Tribe	F	Neil Peyron, Chairperson	P.O. Box 589 Porterville, CA, 93258	(559) 781-4271	(559) 781-4610	neil.peyron@tulerivertribe-nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,King	
	Tule River Indian Tribe	F	Kerri Vera, Environmental Department	P. O. Box 589 Porterville, CA, 93258	(559) 783-8892	(559) 783-8932	kerri.vera@tulerivertribe-nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,King	7/22/2016
	Tule River Indian Tribe	F	Joey Garfield, Tribal Archaeologist	P. O. Box 589 Porterville, CA, 93258	(559) 783-8892	(559) 783-8932	joey.garfield@tulerivertribe-nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,King	7/22/2016
	Wuksachi Indian Tribe/Eshom Valley Band	N	Kenneth Woodrow, Chairperson	1179 Rock Haven Ct. Salinas, CA, 93906	(831) 443-9702		kwood8934@aol.com	Foothill Yokut Mono	Alameda,Calaveras,Contra Costa,Fresno,Inyo,Kings,Madera,Marin,Mariposa,Merced,	6/19/2023

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Lindsay Well 11 Project, Tulare County.

Record: PROJ-2024-000190
Report Type: List of Tribes
Counties: Tulare
NAHC Group: All

Native American Outreach Log

The City of Lindsay Well 11 Treatment Project, Tulare County , California

Organization	Name	Position	Address	Phone Number	Email Address	Letter	E-Mail	Summary of Contact
Native American Heritage Commission	Cameron Vela	Culutral Resources Analyst	1550 Harbor Boulevard Suite 100 West Sacramento, California 95691	(916) 373-3710	nahc@nahc.ca.gov		1/3/2024	In a letter dated January 11, 2024, the NAHC stated that the results were negative and suggested to contact the local Native American representatives on the list provided.
Santa Rosa Rancheria Tachi Yokut Tribe	Nicole Escalon	Cultural Specialist I	P.O. Box 8 Lemoore, CA 93245	(559) 924-1278	nescalone@tachi-yokut-nsn.gov	1/25/2024	2/6/2024	No response
Santa Rosa Rancheria Tachi Yokut Tribe	Shana Powers	Tribal Historic Preservation Officer	P.O. Box 8 Lemoore, CA 93245	(559) 423-3900	spowers@tachi-yokut-nsn.gov	1/25/2024	2/6/2024	No response
Santa Rosa Rancheria Tachi Yokut Tribe	Samantha McCarty	Cultural Specialist II	P.O. Box 8 Lemoore, CA 93245	(559) 633-3440	smccarty@tachi-yokut-nsn.gov	1/25/2024	2/6/2024	Samantha McCarty responded via email stating Santa Rosa Rancheria will be deferring to tribes that are more local to the area.
Tule River Indian Tribe	Neil Peyron	Chairperson	P.O. Box 589 Porterville, CA 93258	(559) 781-4271	neil.peyron@tulrivertribe-nsn.gov	1/25/2024	2/6/2024	No response
Tule River Indian Tribe	Kerri Vera	Environmental Department	P.O. Box 589 Porterville, CA 93258	(559) 783-8892	kerri.vera@tulerivertribe-nsn.gov	1/25/2024	2/6/2024	No response
Tule River Indian Tribe	Joey Garfield	Tribal Archaeologist	P.O. Box 589 Porterville, CA 93258	(559) 783-8932	joey.garfield@tulerivertribe-nsn.gov	1/25/2024	2/6/2024	No response
Wuksache Indian Tribe/Eshom Valley Band	Kenneth Woodrow	Chairperson	1179 Rock Haven Ct. Salinas, CA 93906	(831) 443-9702	kwood8934@aol.com	1/25/2024	2/6/2024	No response

Taylored Archaeology

January 25, 2024

EXAMPLE

Nichole Escalon, Cultural Specialist I
Santa Rosa Rancheria Tachi Yokut Tribe
P.O. Box 8
Lemoore, CA 93245

RE: The City of Lindsay Well 11 Treatment Project, City of Lindsay, Tulare County, California

Dear Nichole Escalon,

Taylored Archaeology is currently under contract to Provost & Pritchard Consulting Group to provide cultural resource services for the proposed City of Lindsay Well 11 Treatment Project in the City of Lindsay, Tulare County, California. The proposed project consists of installing nitrate and perchlorate treatment processes to the existing Well 11 facility. The project is on Assessor's Parcel Numbers 199-140-038, 199-140-048, 199-140-049 and 199-200-028. The project site is located at West Mariposa Street and east of Highway 65 on the west side of Lindsay. The project site is currently a stormwater basin and vacant field. This project is subject to the California Environmental Quality Act (CEQA). The project boundary is in Section 12, Township 20 South, Range 26 East, Mount Diablo Meridian of Lindsay, California 7.5-minute USGS quadrangle (see attached map).

A search of the Native American Heritage Commission's (NAHC) Sacred Lands File did not indicate the presence of tribal or cultural resources in the immediate project area. Taylored Archaeology also requested a records search of the project area at the California Historic Resources Information System (CHRIS), Southern San Joaquin Valley Information Center (SSJVIC) located at the California State University, Bakersfield. The records search results did not identify any previously recorded cultural resources in the project area. An archaeological pedestrian survey of the project area was conducted on January 20, 2024. One historical archaeological resource was encountered during the pedestrian survey, the foundations of a rural residence circa early to mid-1900s.

The NAHC provided your name and address as someone who may have interest in sharing information regarding sacred sites, tribal cultural resources, or other resources of importance in the project area. Please note this outreach letter is research for a cultural resources investigation and is not government-to-government consultation under Assembly Bill 52. Taylored Archaeology understands and takes measures to protect the confidentiality of archaeological site locations, cemeteries, or sacred places, as required by law. Taylored Archaeology will not disclose locational information in any document available to the general public.

6083 N Figarden Dr., Ste. 616, Fresno, CA 93722
559.797.1572 / csaulsarchaeo@gmail.com

Taylored Archaeology

If you have information that you would like to share, please feel free to contact me by email at csaulsarchaeo@gmail.com, or send a letter to my attention at 6083 N. Figarden Dr., Ste. 616, Fresno, CA 93722. Any response by February 10, 2024, would be greatly appreciated.

Sincerely,

Consuelo Sauls

Consuelo Y. Sauls, M.A., RPA # 41591505
Archaeologist

6083 N Figarden Dr., Ste. 616, Fresno, CA 93722
559.797.1572 / csaulsarchaeo@gmail.com

Gmail **Consuelo Sauls <csaulsarchaeo@gmail.com>**

Native American Outreach Letter-City of Lindsay Well 11 Project, Lindsay, Tulare County

5 messages

Consuelo Sauls <csaulsarchaeo@gmail.com> Thu, Jan 25, 2024 at 9:07 AM
To: Samantha McCarty <SMcCarty@tachi-yokut-nsn.gov>

Dear Samantha McCarty,

Please find attached a letter and a map addressed to the Santa Rosa Rancheria Tachi Yokut Tribe for Native American outreach regarding the City of Lindsay Well 11 Treatment Project in Lindsay, Tulare County (**see attachments for more details**).

Taylored Archaeology performed a cultural resources investigation for the project. SSJVIC records showed no recorded cultural resources within the project boundary. NAHC SLF results were negative. An archaeological pedestrian survey was conducted and identified one historic-era cultural resource (**description in letter attached**).

I am conducting this outreach for research as part of the cultural resources investigation. Your response is greatly appreciated.

Respectively,

Consuelo Sauls

--
Consuelo Sauls, M.A., RPA 41591505
Archaeologist
Taylored Archaeology
6083 N. Figarden Dr., Ste. 616
Fresno, CA 93722
csaulsarchaeo@gmail.com
559.797.1572

2 attachments

Samantha McCarty Outreach Letters- The City of Lindsay Well 11 Treatment Project.pdf
127K

Lindsay Well 11 Treatment Topo Map.pdf
3301K

Consuelo Sauls <csaulsarchaeo@gmail.com> Tue, Feb 6, 2024 at 8:00 AM
To: Samantha McCarty <SMcCarty@tachi-yokut-nsn.gov>

Dear Samantha McCarty,

I am following up on a letter I emailed on January 25, 2024, for tribal outreach regarding the City of Lindsay Well 11 Treatment Project. The proposed project consists of installing nitrate and perchlorate treatment processes to the existing Well 11 facility. The project site is located at West Mariposa Street and east of Highway 65 on the west side of the City of Lindsay in Tulare County.

I am following up to confirm the letter was received and to offer you the opportunity to share any information regarding the presence of sensitive cultural resources within the project area. Your response is greatly appreciated. Thank you for your time.

Kind regards,

Consuelo Sauls
[Quoted text hidden]

Samantha McCarty <SMcCarty@tachi-yokut-nsn.gov> Tue, Feb 6, 2024 at 2:26 PM
To: Consuelo Sauls <csaulsarchaeo@gmail.com>

Hi Consuelo,

Thank you for following up with us on this project. I was out on leave for two weeks and am slowly making my way through my emails.

Due to the location of the project, we will be deferring to tribes that are more local to the area. If you have any further questions please do not hesitate to contact myself or anyone else in the SRR Cultural Department.

Also, if there are any other projects that you have sent to us and have not received any sort of response from us, could you please resend them to us, so they are at the top of our inboxes, and we can review them?

Thank you.

Sincerely,

Samantha McCarty

Santa Rosa Rancheria Tachi-Yokut Tribe
Cultural Specialist II
SMcCarty@tachi-yokut-nsn.gov
Cell: (559) 633-6640
Direct Line: (559) 925-2591
Office: (559) 924-1278 x 4091

***PLEASE KEEP ALL CULTURAL STAFF IN EMAILS UNLESS STATED OTHERWISE**

From: Consuelo Sauls <csaulsarchaeo@gmail.com>
Sent: Tuesday, February 6, 2024 8:00 AM
To: Samantha McCarty <SMcCarty@tachi-yokut-nsn.gov>
Subject: Re: Native American Outreach Letter-City of Lindsay Well 11 Project, Lindsay, Tulare County

[Quoted text hidden]

Samantha McCarty <SMcCarty@tachi-yokut-nsn.gov> Tue, Feb 6, 2024 at 2:28 PM
To: Consuelo Sauls <csaulsarchaeo@gmail.com>
Cc: Shana Powers <SPowers@tachi-yokut-nsn.gov>, Nichole Escalon <nescalon@tachi-yokut-nsn.gov>

I am adding Nichole and Shana to this email thread, I forgot to add them in the last one.

Sincerely,

Samantha McCarty

Santa Rosa Rancheria Tachi-Yokut Tribe
Cultural Specialist II
SMcCarty@tachi-yokut-nsn.gov
Cell: (559) 633-6640
Direct Line: (559) 925-2591
Office: (559) 924-1278 x 4091

***PLEASE KEEP ALL CULTURAL STAFF IN EMAILS UNLESS STATED OTHERWISE**

From: Samantha McCarty <SMcCarty@tachi-yokut-nsn.gov>
Sent: Tuesday, February 6, 2024 2:26 PM
To: Consuelo Sauls <csaulsarchaeo@gmail.com>
[Quoted text hidden]

[Quoted text hidden]

Consuelo Sauls <csaulsarchaeo@gmail.com> Tue, Feb 6, 2024 at 3:40 PM
To: Samantha McCarty <SMcCarty@tachi-yokut-nsn.gov>
Cc: Shana Powers <SPowers@tachi-yokut-nsn.gov>, Nichole Escalon <nescalon@tachi-yokut-nsn.gov>

Hi Samantha,

Thank you very much! I will make note of this in my report. Have a good day.

Kind regards,

Consuelo Sauls
[Quoted text hidden]

APPENDIX D

DPR 523 Cultural Resource Record Forms

(UNRESTRICTED)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code **Reviewer** **Date**

 Resource Name or #: 199-140-048

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ■ **Unrestricted** **a. County:** Tulare
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

b. USGS 7.5' Quad: Lindsay, California **Date:** 1951, pr 1969 **T** 20 S ;**R** 21 E ; SE¼ **of** NE¼ **of Sec** 12 **;** M.D. **B.M.**

c. Address: N/A **City:** Lindsay **Zip:** 93247

d. UTM: Zone: 11; 310812.18 mE/ 4008787.27 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:
The site is east of State Route 65 and south of West Mariposa Street within the City of Lindsay, Tulare County on Parcel Number 199-140-048. The site is surrounded by suburban development within the City of Lindsay with a motel to the west, stormwater basin to the north and east, and commercial development to the south. The site is 351 feet above sea level. The site is approximately 300 feet northeast of "The World's Largest Olive" statue.

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
Site 199-140-048 is the remnant of a rural residence located in a vacant area on the site. Presently only a concrete slab and concrete foundation remain of the residence. The concrete slab measures approximately 10 feet wide by 17 feet long. The concrete foundation is approximately 16 feet wide by 25 feet long. The concrete foundation additionally has remnants of metal pipes embedded in the wall and is topped by in places by wooden planks. There are additional irregularly shaped concrete foundations connecting the concrete pad and the rest of the foundation. The entire site measures approximately 40 feet wide by 65 feet long. No artifacts were noted in association with these features.

P3b. Resource Attributes: (List attributes and codes): AH2-Foundations/structure pads

P4. Resources Present: ☐Building ☐Structure ☐Object ■Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing

P5b. Description of Photo: (View, date, accession #)
Facing south; January 20, 2024

P6. Date Constructed/Age and Sources: ■Historic ☐Prehistoric ☐Both

P7. Owner and Address:
City of Lindsay
P.O. Box 369
Lindsay, CA 93247

P8. Recorded by:
Consuelo Sauls
Taylored Archaeology
6083 N. Figarden Dr., Ste. 616
Fresno, CA 93722

P9. Date Recorded:
January 23, 2024

P10. Survey Type: (Describe)
Intensive pedestrian survey

P11. Report Citation: (Cite survey report and other sources, or enter "none.")
Sauls, Consuelo Y.
2024 *Phase I Cultural Resources Assessment for the City of Lindsay Well 11 Treatment Project, Lindsay, Tulare County, California.* Taylored Archaeology, Fresno, California. Prepared for Provost & Pritchard Consulting Group, Fresno, California.

Attachments: ☐NONE ■Location Map ■Sketch Map ■Continuation Sheet ☐Building, Structure, and Object Record ■Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

ARCHAEOLOGICAL SITE RECORD

A1. Dimensions: a. Length: 60ft m. **(** N-S**) × b. Width:** 38ft m. **(**N-W **)**
Method of Measurement: ☐ Paced ■ Taped ☐ Visual estimate ☐ Other:
Method of Determination (Check any that apply.): ☐ Artifacts ■ Features ☐ Soil ☐ Vegetation ☐ Topography
☐ Cut bank ☐ Animal burrow ☐ Excavation ☐ Property boundary ☐ Other (Explain):

Reliability of Determination: ■ High ☐ Medium ☐ Low Explain: Site boundary determined by visible foundations.

Limitations (Check any that apply): ☐ Restricted access ☐ Paved/built over ☐ Site limits incompletely defined
☐ Disturbances ■ Vegetation ☐ Other (Explain): Partially obscured by vegetation

A2. Depth: ☐ None ■ Unknown Method of Determination:

A3. Human Remains: ☐ Present ☐ Absent ☐ Possible ■ Unknown (Explain): None observed.

A4. Features (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.):

See Item P3a and sketch map.

A5. Cultural Constituents (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.):
No artifacts, ecofacts, or cultural residues were observed on the site.

A6. Were Specimens Collected? ■ No ☐ Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)

A7. Site Condition: ☐ Good ☐ Fair ■ Poor (Describe disturbances.): The former structure is filled with sediment and demolished except for its foundations. Additionally, the foundations are partially cracked and broken due to decades of weathering. The surrounding field is annually disced for fire control.

A8. Nearest Water (Type, distance, and direction.)**:** Lewis Creek is approximately 1.57 miles (2.5 kilometers) northeast of the site.

A9. Elevation: 370 feet above sea level.

A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.)**:** The site is a flat vacant lot surrounded by orchards, empty fields, commercial buildings, an elementary school, a stormwater basin, and residences. Vegetation on the site is primarily dominated by annual grasses and ruderal plants. The site is heavily trafficked by local pedestrians using an unofficial dirt path to cut through the site approximately 30 feet west of the foundations.

A11. Historical Information: Based on archival research of available historic aerial photographs, topographic maps, and other historical information, the site was a rural residence built sometime between 1929 and 1946 and demolished sometime between 1984 and 1990. During the time of its existence the rural residence was surrounded by orchards and the residential site additionally had multiple outbuildings. No evidence of these outbuildings was encountered during the survey. The site is currently owned by the City of Lindsay and has no current address. A review of available property ownership records did not reveal any information of prior ownership or historical addresses.

A12. Age: ☐ Prehistoric ☐ Protohistoric ☐ 1542-1769 ☐ 1769-1848 ☐ 1848-1880 ☐ 1880-1914 ■ 1914-1945
☐ Post 1945 ☐ Undetermined **Describe position in regional prehistoric chronology or factual historic dates if known:** Per A11 above, the rural residence appears to be constructed between 1929 and 1946.

A13. Interpretations (Discuss data potential, function[s], ethnic affiliation, and other interpretations): The site appears to be remnants of an early 1900s rural residence. No information was discovered on prior ownership or individuals residing at the site. Aside from what has been documented in this site record and the accompanying report (Item P11), the site demonstrates little additional information potential. The site does not appear eligible for a listing in a local historic registry, California Register of Historical Resources, and the National Register of Historic Places.

A14. Remarks: None

A15. References (Documents, informants, maps, and other references):

Sauls, Consuelo Y.
2024 *Phase I Cultural Resources Assessment for the City of Lindsay Well 11 Treatment Project, Lindsay, Tulare County, California.* Taylored Archaeology, Fresno, California. Prepared for Provost & Pritchard Consulting Group, Fresno, California.

A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record.):

Original Media/Negatives Kept at: Taylored Archaeology, 6083 N. Figarden Dr. Ste. 616, Fresno, CA 93722

A17. Form Prepared by: Consuelo Sauls **Date:** February 10, 2024
Affiliation and Address: 6083 N. Figarden Dr. Ste. 616, Fresno, CA 93722

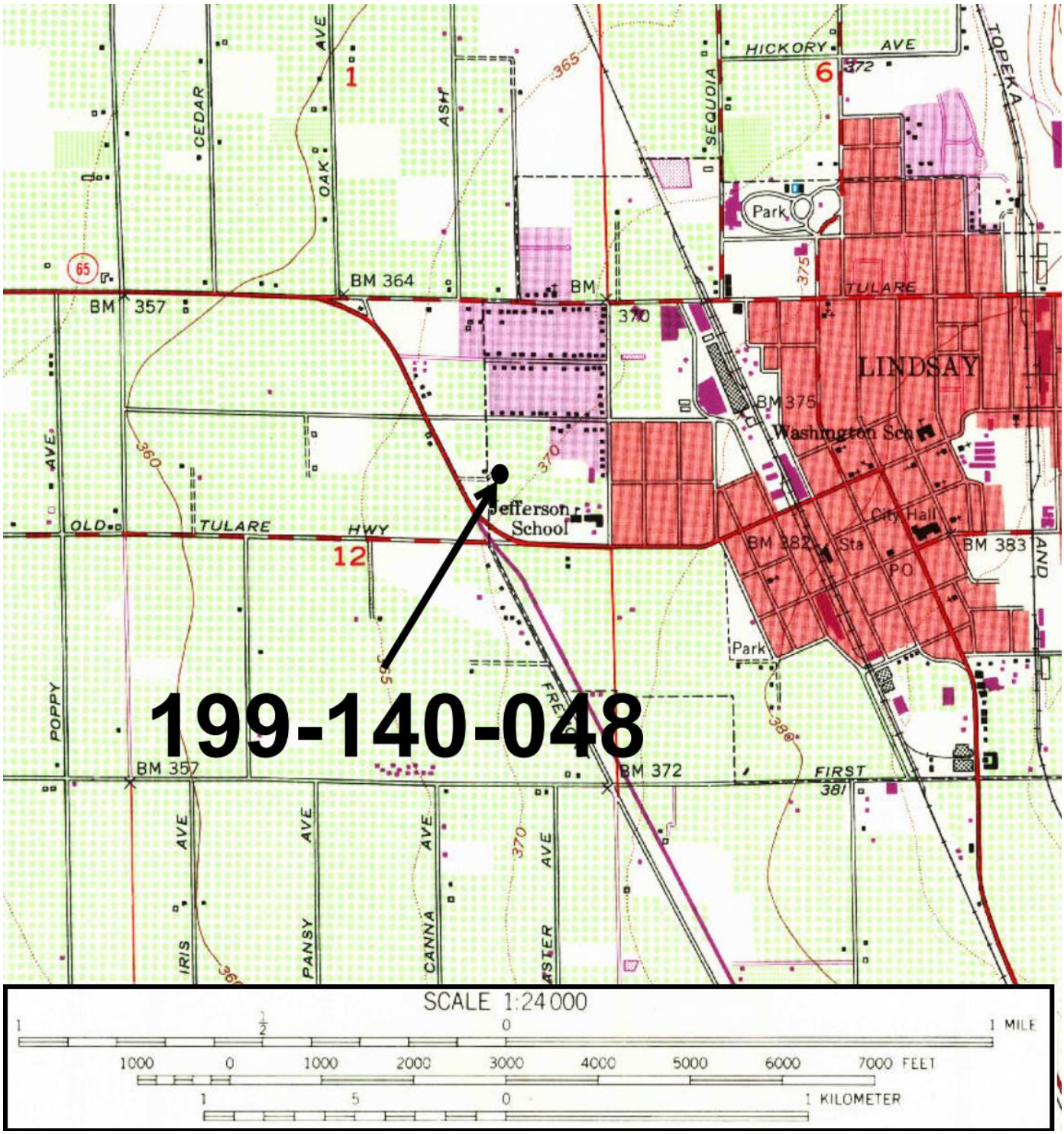
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

 ***Resource Name or #:** 199-140-048

***Map Name:** USGS Porterville, CA 7.5 min topographic map ***Scale:** 1:24000 ***Date of Map:** 1951, photorevised 1969



DPR 523J (1/95)

*Required information

Recorded by: Consuelo Sauls **Date:** January 23, 2024 ■ Continuation ☐ Update

Photo 1 - Concrete slab in northeast corner of site.

Photo 2 – Concrete slab/steps in west side of site.

Photo 3 - Cellar in east side of site.

Photo 4 - West side of site; wooden plank on top of concrete foundation.

State of California ъ The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
SKETCH MAP

Primary #
HRI#
Trinomial

 Resource Name or # 199-140-048

Drawn by: Consuelo Sauls **Date of map:** February 11, 2024