DRAFT INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR CONDITIONAL USE PERMIT NO. 21-06 FOR THE SANDRIDGE BEEF HARVESTING PLANT PROJECT

MAY 2022

LEAD AGENCY:

Kings County
Community Development Agency
1400 W Lacey Blvd., Bld. 6
Hanford, CA 93230

PREPARED BY:

4Creeks, Inc.
324 S Santa Fe, STE A
Visalia, CA 93292

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KINGS COUNTY

Community Development Agency
1400 W. Lacey Blvd., Bld. 6
Hanford, CA 93230

SECTION 1
CEQA REVIEW PROCESS

1.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT GUIDELINES

Section 15063(a) of the California Environmental Quality Act (CEQA) Guidelines requires that the Lead Agency prepare an Initial Study; however if the Lead Agency can determine that an EIR will clearly be required for the project, an initial study is not required, but may still be desirable. All phases of the project planning, implementation, and operation must be considered in the Initial Study. The purposes of an Initial Study, as listed under Section 15063(c) of the CEQA Guidelines, include:

(1) Provide the lead agency with information to use as the basis for deciding whether to prepare an EIR or negative declaration;
(2) Enable an applicant or lead agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a negative declaration;
(3) Assist the preparation of an EIR, if one is required, by:
  (A) Focusing the EIR on the effects determined to be significant,
  (B) Identifying the effects determined not to be significant,
  (C) Explaining the reasons for determining that potentially significant effects would not be significant, and
  (D) Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.
(4) Facilitate environmental assessment early in the design of a project;
(5) Provide documentation of the factual basis for the finding in a negative declaration that a project will not have a significant effect on the environment
(6) Eliminate unnecessary EIRs;
(7) Determine whether a previously prepared EIR could be used with the project.

1.2 INITIAL STUDY

The Initial Study provided herein covers the potential environmental effects of the proposed construction and operation of a beef harvesting plant in Kings County, CA. Kings County will act as the Lead Agency for processing the Initial Study/Negative Declaration pursuant to the CEQA and the CEQA Guidelines.

1.3 ENVIRONMENTAL CHECKLIST

The Lead Agency may use the CEQA Environmental Checklist Form [CEQA Guidelines, Section 15063(d)(3) and (f)] in preparation of an Initial Study to provide information for determining if the project will have significant effects on the environment. A copy of the completed Environmental Checklist is set forth in **Section Three**.

1.4 NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION

The Lead Agency shall provide a Notice of Intent to Adopt a Negative Declaration (CEQA Guidelines, Section 15072) to the public, responsible agencies, trustee agencies and the County Clerk within which the project is located, sufficiently prior to adoption by the Lead Agency of the Negative Declaration to allow the public and agencies the review period. The public review period (CEQA Guidelines, Section21091(b)) shall not be less than 20 days. If the draft mitigated negative declaration is submitted to the State Clearinghouse for review, the review period shall be at least 30 days.

Prior to approving the project, the Lead Agency shall consider the proposed Negative Declaration together with any comments received during the public review process, and shall adopt the proposed Negative Declaration only if it finds on the basis of the whole record before it, that there is no substantial evidence that the project will have a significant effect on the environment and that the Negative Declaration reflects the Lead Agency's independent judgment and analysis.

The written and oral comments received during the public review period will be considered by Kings County prior to adopting the Negative Declaration. Regardless of the type of CEQA document that must be prepared, the overall purpose of the CEQA process is to:

1) Assure that the environment and public health and safety are protected in the face of discretionary projects initiated by public agencies or private concerns;
2) Provide for full disclosure of the project's environmental effects to the public, the agency decision-makers who will approve or deny the project, and the responsible trustee agencies charged with managing resources (e.g. wildlife, air quality) that may be affected by the project; and
3) Provide a forum for public participation in the decision-making process pertaining to potential environmental effects.

According to Section 15070 a public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

(a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or
(b) The initial study identifies potentially significant effects, but:
(1) Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
(2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

The Environmental Checklist Discussion contained in Section Three of this document has determined that the environmental impacts of the project are less than significant with mitigation measures and that a Mitigated Negative Declaration is adequate for adoption by the Lead Agency.

1.5 NEGATIVE DECLARATION OR MITIGATED NEGATIVE DECLARATION

The Lead Agency shall prepare or have prepared a proposed Negative Declaration or Mitigated Negative Declaration (CEQA Guidelines Section 15070) for a project subject to CEQA when the Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment. The proposed Negative Declaration or Mitigated Negative Declaration circulated for public review shall include the following:

(a) A brief description of the project, including a commonly used name for the project.
(b) The location of the project, preferably shown on a map.
(c) A proposed finding that the project will not have a significant effect on the environment.
(d) An attached copy of the Initial Study documenting reasons to support the finding.
(e) Mitigation measures, if any.

1.6 INTENDED USES OF INITIAL STUDY/NEGATIVE DECLARATION DOCUMENTS

The Initial Study/Negative Declaration document is an informational document that is intended to inform decision-makers, other responsible or interested agencies, and the general public of potential environmental effects of the proposed project. The environmental review process has been established to enable the public agencies to evaluate environmental consequences and to examine and implement methods of eliminating or reducing any adverse impacts. While CEQA requires that consideration be given to avoiding environmental damage, the Lead Agency must balance any potential environmental effects against other public objectives, including economic and social goals.

Kings County, as Lead Agency, will make a determination, based on the environmental review for the Environmental Study, Initial Study and comments from the general public, if there are less than significant impacts from the proposed project and the requirements of CEQA can be met by adoption of a Mitigated Negative Declaration.

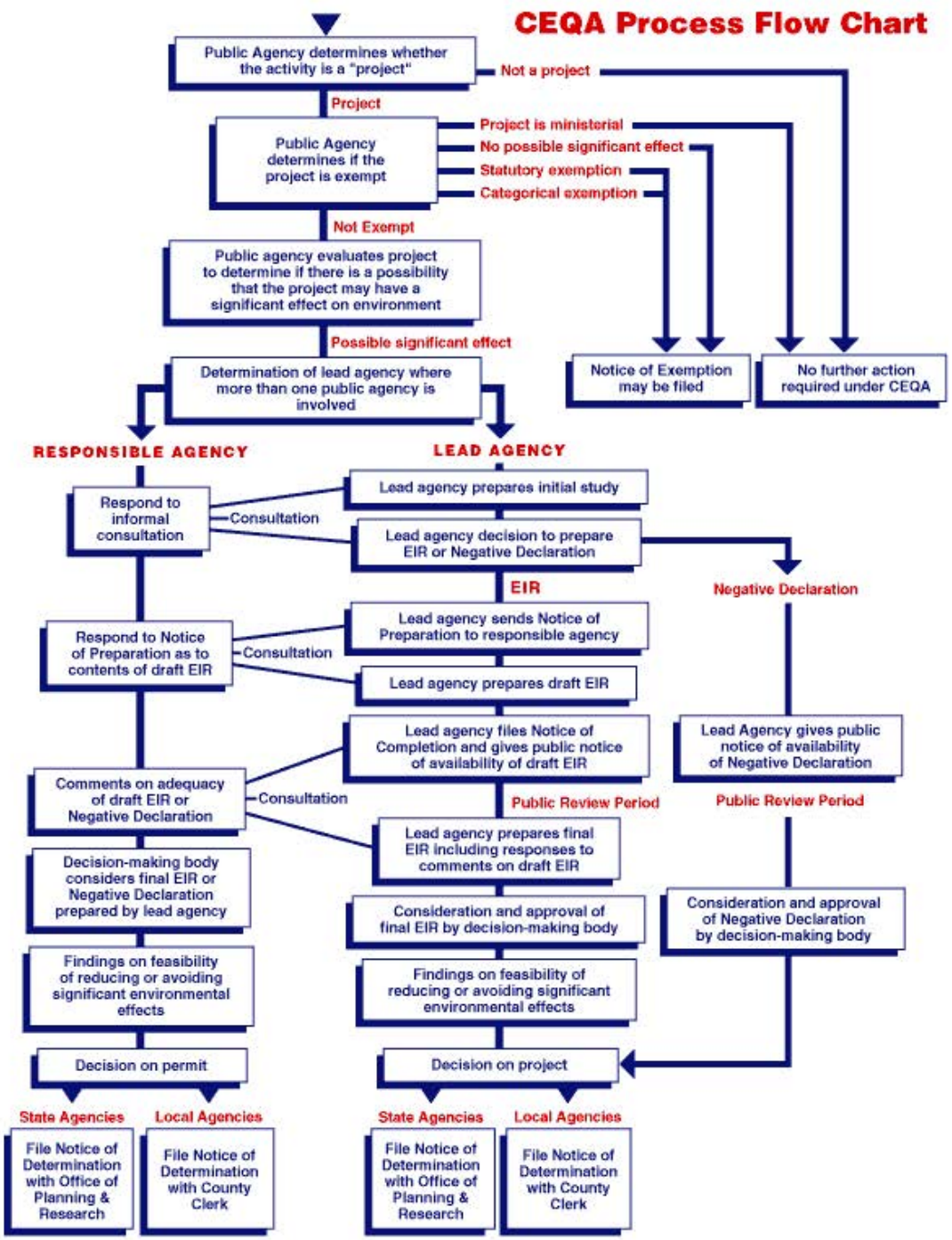
1.7 NOTICE OF DETERMINATION (NOD)

The Lead Agency shall file a Notice of Determination within five working days after deciding to approve the project. The Notice of Determination (CEQA Guidelines, Section 15075) shall include the following:

(1) An identification of the project including the project title as identified on the proposed negative declaration, its location, and the State Clearinghouse identification number for the proposed negative declaration if the notice of determination is filed with the State Clearinghouse.
(2) A brief description of the project.
(3) The agency's name and the date on which the agency approved the project.
(4) The determination of the agency that the project will not have a significant effect on the environment.
(5) A statement that a negative declaration or a mitigated negative declaration was adopted pursuant to the provisions of CEQA.
(6) A statement indicating whether mitigation measures were made a condition of the approval of the project, and whether a mitigation monitoring plan/program was adopted.
(7) The address where a copy of the negative declaration or mitigated negative declaration may be examined.
(8) The identity of the person undertaking a project which is supported, in whole or in part, through

contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies or the identity of the person receiving a lease, permit, license, certificate, or other entitlement for use from one or more public agencies.

1.8 CEQA PROCESS FLOW CHART



SECTION 2

Project Description

KINGS COUNTY
Community Development Agency
1400 W. Lacey Blvd., Bld. 6
Hanford, CA 93230

SECTION 2
PROJECT DESCRIPTION

2.1 PROJECT DESCRIPTION & PURPOSE

Sandridge Cattle wants to develop land in Kings County, CA to construct and operate a beef harvesting plant. The proposed project would affect approximately 135 acres within parcels 024-080-019, 024-080-020, and 024-090-042. The beef harvesting plant will produce high quality and dry aged beef for bulk sale to consumers. The beef harvesting plant will make use of humane slaughter techniques using kosher and halal methods. The beef harvesting facilities will be governed by any CDFA and USDA requirements and designed to meet all local and state environmental regulatory requirements. See Figure 3-2 for site layout.

The beef harvesting plant includes approximately 72,000 sf of building space consisting of livestock loading areas, a kill floor, coolers, cold storage, dry storage, a cut room, offices, employee facilities and 1,900 sf of retail space. A summary of the proposed elements within the beef harvesting plant is provided in Table 2-1, below. A conceptual floorplan is provided in Figure 3-3. In addition to the proposed building facilities, the project includes 151 parking spaces (6 ADU), internal access roads, and a truck scale/weigh station. This facility will be used to slaughter, butcher, process, and distribute bulk beef products using kosher and halal slaughter techniques which require a trained shochet to kill the cow with a quick, deep strike across the throat with a very sharp 16" knife. To meet kosher requirements, all blood must be removed. This is accomplished by cleaning the meat with water, letting the animal air dry, covering the meat in a light layer of salt, and rinsing the meat in water to remove salt before packaging. Wastewater from beef processing will be retained in an onsite doubled lined retention pond in accordance with State and Regional policies to protect surface and groundwater quality.

Harvesting Plant Facilities	Approximate Building Area (SF)
Livestock Loading Areas	16,000
Warehouse/Storage	9,500
Kill Floor	6,200
Coolers/Cold Storage	14,000
Cut Room	6,900
Offices	1,700
Employee Facilities	6,800
Retail	1,900
Maintenance/Sanitation	2,500
Misc.	6,500
Total	**72,000**

Table 2-1. Beef Harvesting Plant Facility Summary.

At capacity, the beef harvesting plant would harvest a maximum of 210 cattle per day. The beef harvesting plant would be operated Monday-Friday from 6am to 11pm and would require 60 full-time employees to run the daily beef harvesting plant operations at max capacity. It is anticipated that approximately 10% of beef harvesting plant employees will carpool. During operations, the beef harvesting plant would receive approximately 10 deliveries per day for cattle brought in from outside feedlot facilities. Pickups from the beef harvesting plant would include blood/offal (two trucks per day), sick/dead cows and unusable offal (one truck per day), and beef pick-up (five trucks per day).

The retail space will be open seven days per week to accommodate weekend customers. It is anticipated that there will be three drop-in visitors/customers per day on weekdays and ten drop-in visitors/customers per day on weekends.

Power use for the retail space and beef harvesting plant is expected to be 9,400 mJ/day (electricity) and 353 therms per day (natural gas). Water use within the beef harvesting plant is estimated to be 50,000 gallons per day.

2.2 PROJECT LOCATION

The location of the proposed Sandridge Beef Harvesting Facility (hereinafter referred to as the "Project Site") is located in the north portion of Kings County, directly west of the City of Lemoore, near the northwest corner of the intersection of Highway 41 & Jackson Avenue. The project would involve construction on approximately 135 acres within parcels 024-080-019, 024-080-020, and 024-090-042.

The properties on which the project would be located are designated by Kings County as General Agriculture under the General Plan and is zoned as AG-20 General Agricultural-20 District under the Kings County Development Code. The Site is within the City of Lemoore Planning Area. The City of Lemoore General Plan designates the Project site as Agriculture.

Current land use on the surrounding properties includes cultivated agriculture. There is one rural residence approximately 180 feet from the Project property line (approximately 600 feet from the area of closest disturbance). The land to the north, west, and east are designated by Kings County as General Agriculture under the General Plan and is zoned as AG-20 General Agricultural-20 District under the Kings County Development Code. Property to the east is within the Lemoore City Limits and is designated as Light Industrial under the City's General Plan and Zoning Ordinance.

2.3 OTHER PERMITS AND APPROVALS

Other permits and approvals required for the Sandridge Beef Harvesting Plant Project are listed below. It should be noted that this list is not exhaustive and additional permits and approvals may also be required.

- *County of Kings Code of Ordinances, Buildings and Structures, Section 5-7. No person shall erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, wire or engage in plumbing, any building or structure in the unincorporated territory of the county without first obtaining a separate building, electric, plumbing, and mechanical permit for the work proposed on each such building or structure from the building.*
- *Central Valley Regional Quality Control Board, NPDES Permit.* The proposed Project Site is within the jurisdiction of the Central Valley Regional Water Quality Control Board (RWQCB). The Central

Valley RWQCB requires a National Pollution Discharge Elimination System (NPDES) Permit for projects disturbing more than one acre of total land area. A Stormwater Pollution Prevention Plan (SWPPP) is required as part of this permit. Because the project is greater than one acre, a NPDES Permit and SWPPP will be required.

- *Kings County, Encroachment Permit.* The proposed project would encroach on County Right-of-Way (ROW) with the proposed deceleration lane on Jackson Avenue. As such, an Encroachment Permit through the Kings County Public Works department would be required.

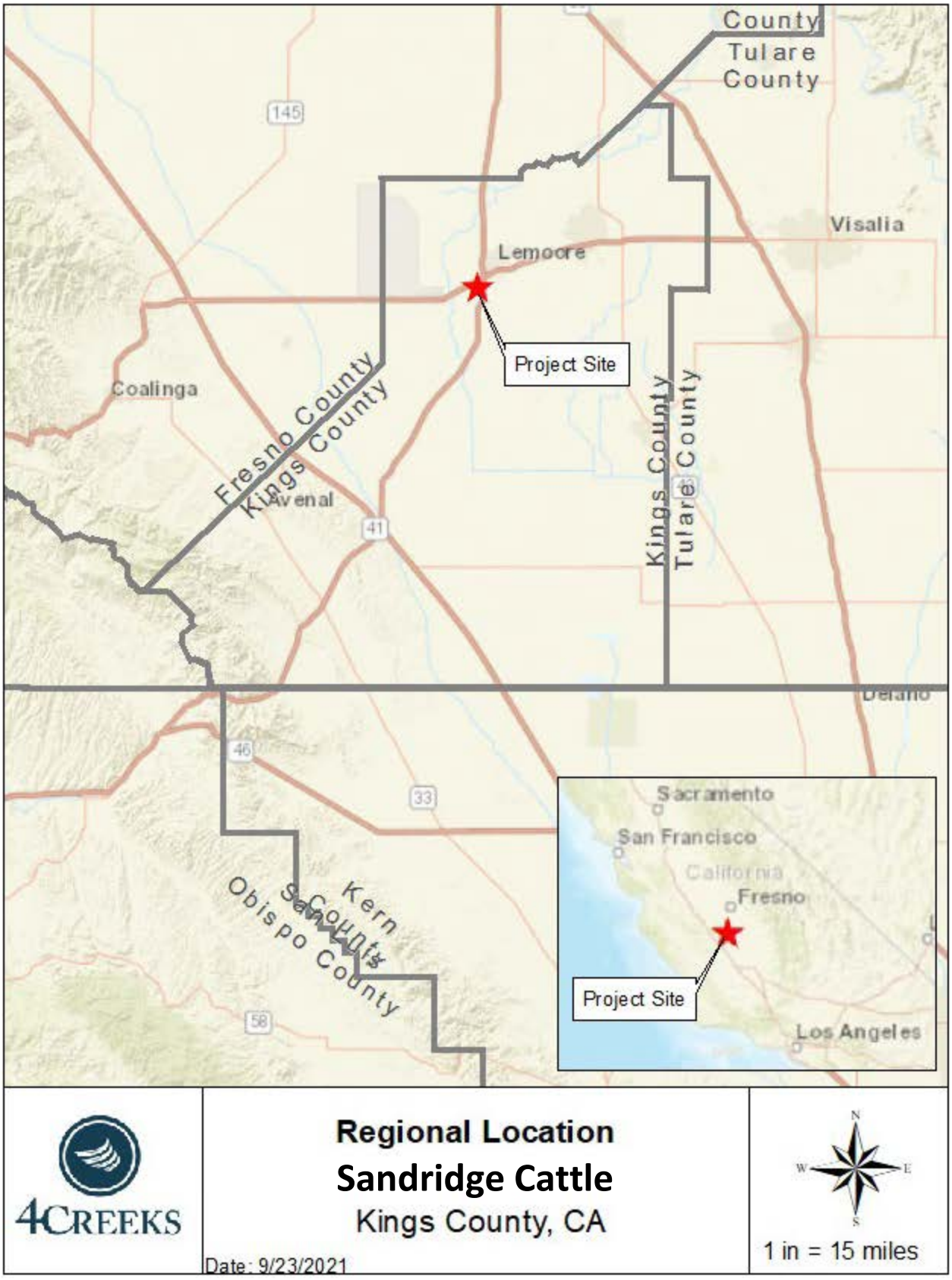


Figure 2-1. Regional Location Map

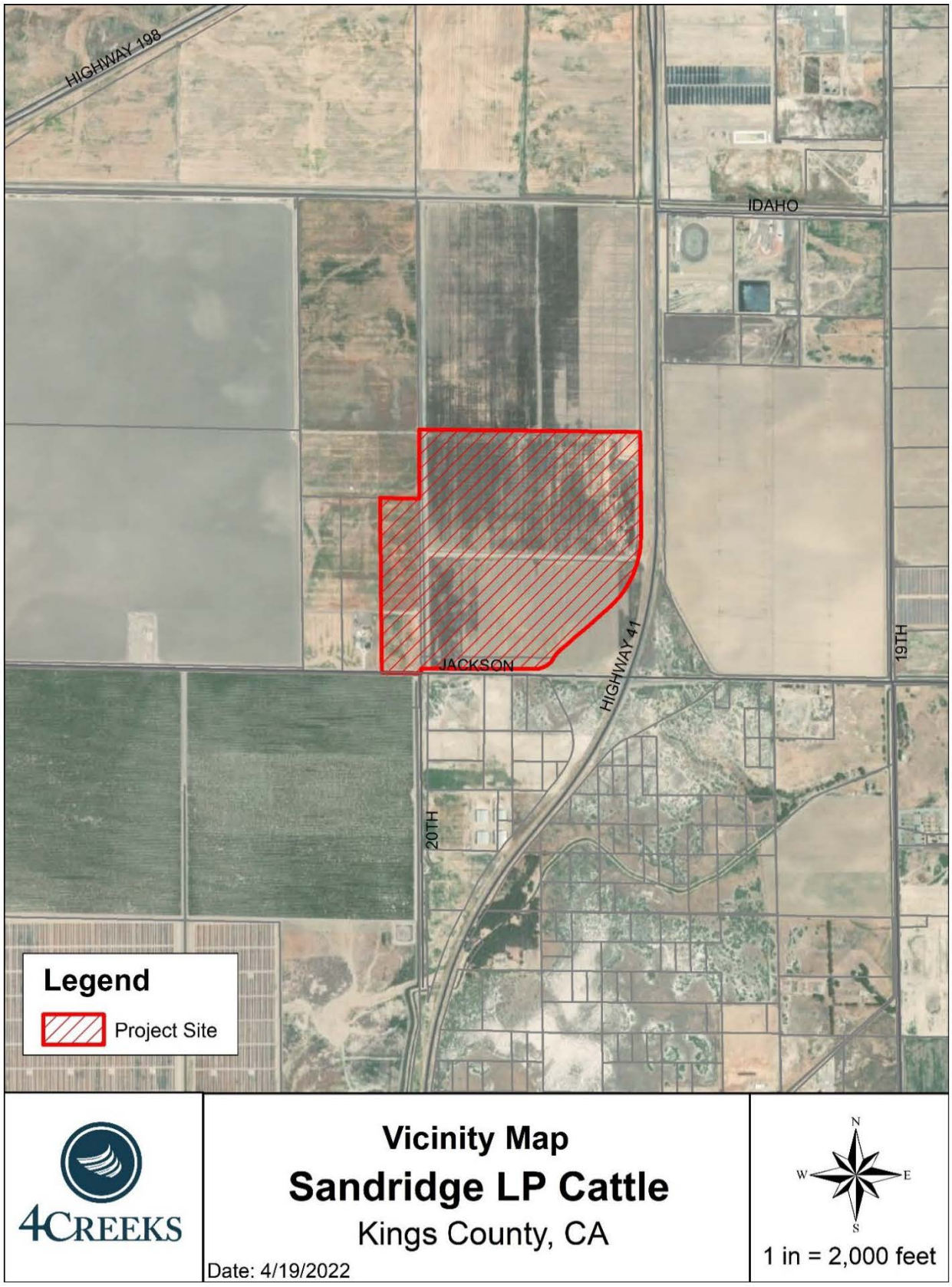


Figure 2-2. Vicinity Map

SECTION 3

Evaluation of Environmental Impacts

KINGS COUNTY
Community Development Agency
1400 W. Lacey Blvd., Bld. 6
Hanford, CA 93230

SECTION 3
EVALUATION OF ENVIRONMENTAL IMPACTS

This document is the Initial Study/Mitigated Negative Declaration for the proposed construction and operation of a beef harvesting plant in Kings County, CA. Kings County will act as the Lead Agency for this project pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

3.1 PURPOSE

The purpose of this environmental document is to implement the California Environmental Quality Act (CEQA). Section 15002(a) of the CEQA Guidelines describes the basic purposes of CEQA as follows:

(1) Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
(2) Identify the ways that environmental damage can be avoided or significantly reduced.
(3) Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
(4) Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

This Initial Study of environmental impacts has been prepared to conform to the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). According to Section 15070, a public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

(a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or
(b) The initial study identifies potentially significant effects, but:
  (1) Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
  (2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

3.2 INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

1. **Project Title:** Conditional Use Permit No. 21-06 for the Sandridge Beef Harvesting Plant Project

2. **Lead Agency:** Kings County
Community Development Agency
Contact: Chuck Kinney, Deputy Director - Planning
1400 W. Lacey Blvd., Bld. 6
Hanford, CA 93230
(559) 852-2670 FAX 584-8989

3. **Applicant:** Sandridge Partners, L.P.
Contact: Matthew Maxson
960 San Antonio Road, Suite 114
Los Altos, CA 94022
408-921-2375

4. **Project Location:** The location of the proposed Sandridge Beef Harvesting Facility (hereinafter referred to as the "Project Site") is located in the north portion of Kings County, directly west of the City of Lemoore, near the northwest corner of the intersection of Highway 41 & Jackson Avenue. The site is located on the northwest corner of Highway 41 and Jackson Avenue. The project would involve construction on approximately 135 acres within the following parcels:

   - 024-080-019
   - 024-080-020
   - 024-090-042

5. **General Plan Designation:** The 2035 Kings County General Plan designates the parcels involved in the project as General Agriculture. The Site is within the City of Lemoore Planning Area. The City of Lemoore General Plan designates the Project site as Agriculture.

6. **Zoning Designation:** The Kings County Development Code designates the parcels involved in the project as General Agricultural-20 District (AG-20).

7. **Surrounding Land Uses and Settings:** Current land use on the surrounding properties includes cultivated agriculture. There is one rural residence approximately 180 feet from the Project property line (approximately 600 feet from the area of closest disturbance). The land to the north, west, and east are designated by Kings County as General Agriculture under the General Plan and is zoned as AG-20 General Agricultural-20 District under the Kings County Development Code. Property to the east is within the Lemoore City Limits and is designated as Light Industrial under the City's General Plan and Zoning Ordinance.

8. **Project Description:** Sandridge Cattle wants to develop land in Kings County, CA to construct and operate a beef harvesting plant. The proposed project would affect approximately 135 acres within parcels 024-080-019, 024-080-020, and 024-090-042. The beef harvesting plant will produce high quality and dry aged beef for bulk sale to consumers. The beef harvesting plant will make use of humane slaughter techniques using kosher and halal methods. The beef harvesting facilities will be

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Harvesting Plant Facilities	Approximate Building Area (SF)
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Power use for the retail space and beef harvesting plant is expected to be 9,400 mJ/day (electricity) and 353 therms per day (natural gas). Water use within the beef harvesting plant is estimated to be 50,000 gallons per day.

9. **Parking and access:** Vehicular access to the project site will be available via Jackson Avenue. The proposed project includes a network of private paved roads which will provide full access to the

entire Project site. The project proposes 151 (6 ADA) parking spaces to accommodate employee, visitor, and customer parking. During construction, workers will utilize temporary onsite construction staging areas for parking of vehicles and equipment.

10. **Landscaping and Design** All landscaping and design components will comply with Article 4, Section 418.B.5 of the Kings County Development Code for the AG-20 Zone District. The landscape and design plans will be required at the time building permits are submitted for the project and will be subject to the "California Model Water Efficient Landscape Ordinance."

11. **Utilities and Electrical Services:** The proposed project will receive electricity from PG&E and natural gas from Southern California Gas. The project will require relocation of five onsite PG&E power poles. Wastewater from restroom facilities will be collected by a proposed septic system. Primary sources of wastewater from operation of the beef harvesting plant include washdown water, urine, manure and blood. This wastewater and stormwater within the project area will be contained within an on-site wastewater retention pond. The project will be serviced by existing water entitlements and no new water service would be required.

12. **Project Components:** The discretionary approvals required from Kings County for the proposed project include:

Conditional Use Permit	Kings County Building Permit
Central Valley Region RWQCB NPDES Permit	Kings County Encroachment Permit

ACRONYMS

BMP	Best Management Practices
CAA	Clean Air Act
CCR	California Code of Regulation
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CWA	California Water Act
DHS	Department of Health Services
FEIR	Final Environmental Impact Report
FPPA	Farmland Protection Policy Act
ISMND	Initial Study Mitigated Negative Declaration
MCL	Maximum Contaminant Level
ND	Negative Declaration
NAC	Noise Abatement Criteria
RCRA	Resource Conservation and Recovery Act of 1976
RWQCB	Regional Water Quality Control Board
SHPO	State Historic Preservation Office
SJVAPCD	San Joaquin Valley Air Pollution Control District
SWPPP	Storm Water Pollution Prevention Plan

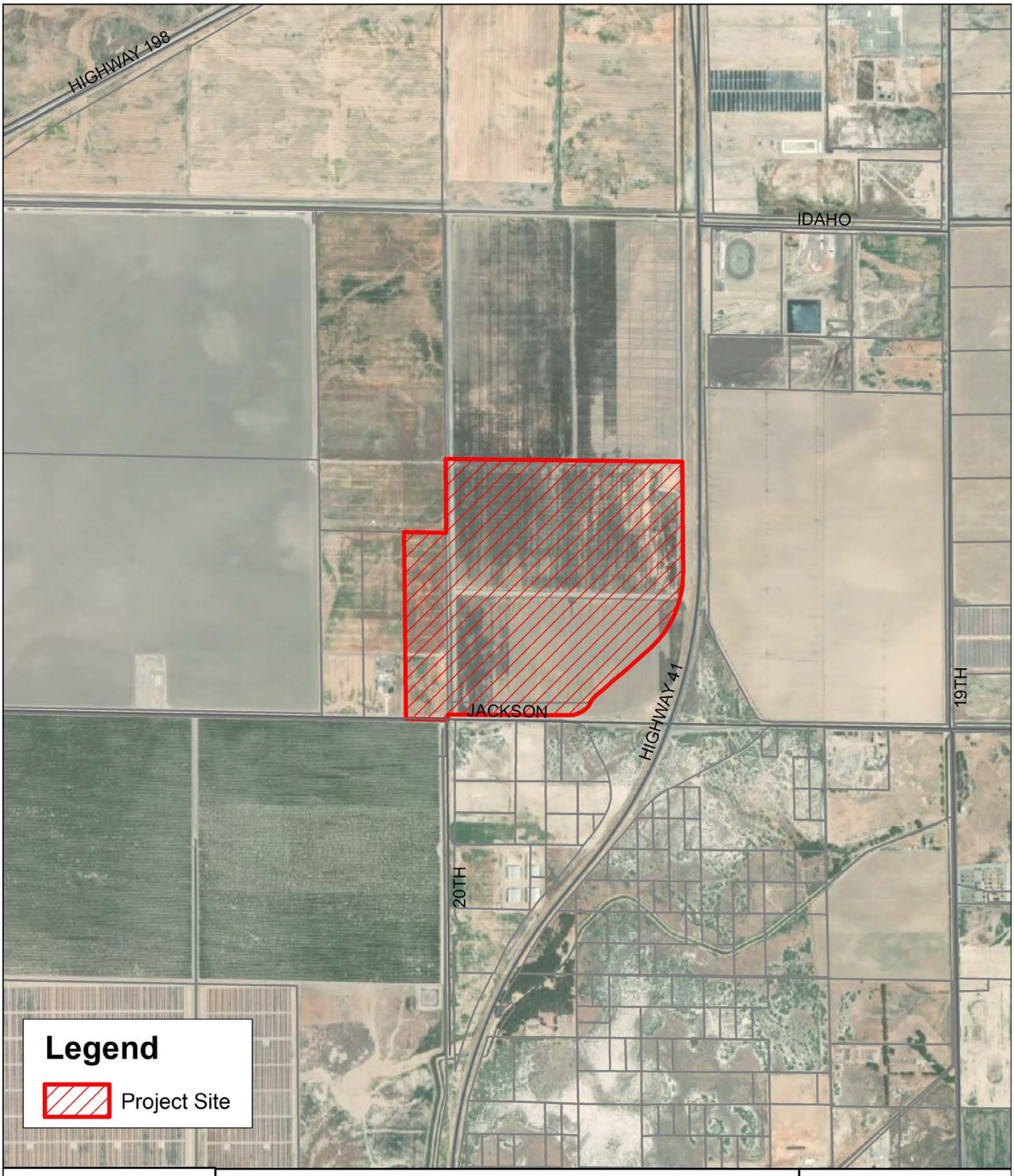

Figure 3-1. Vicinity Map

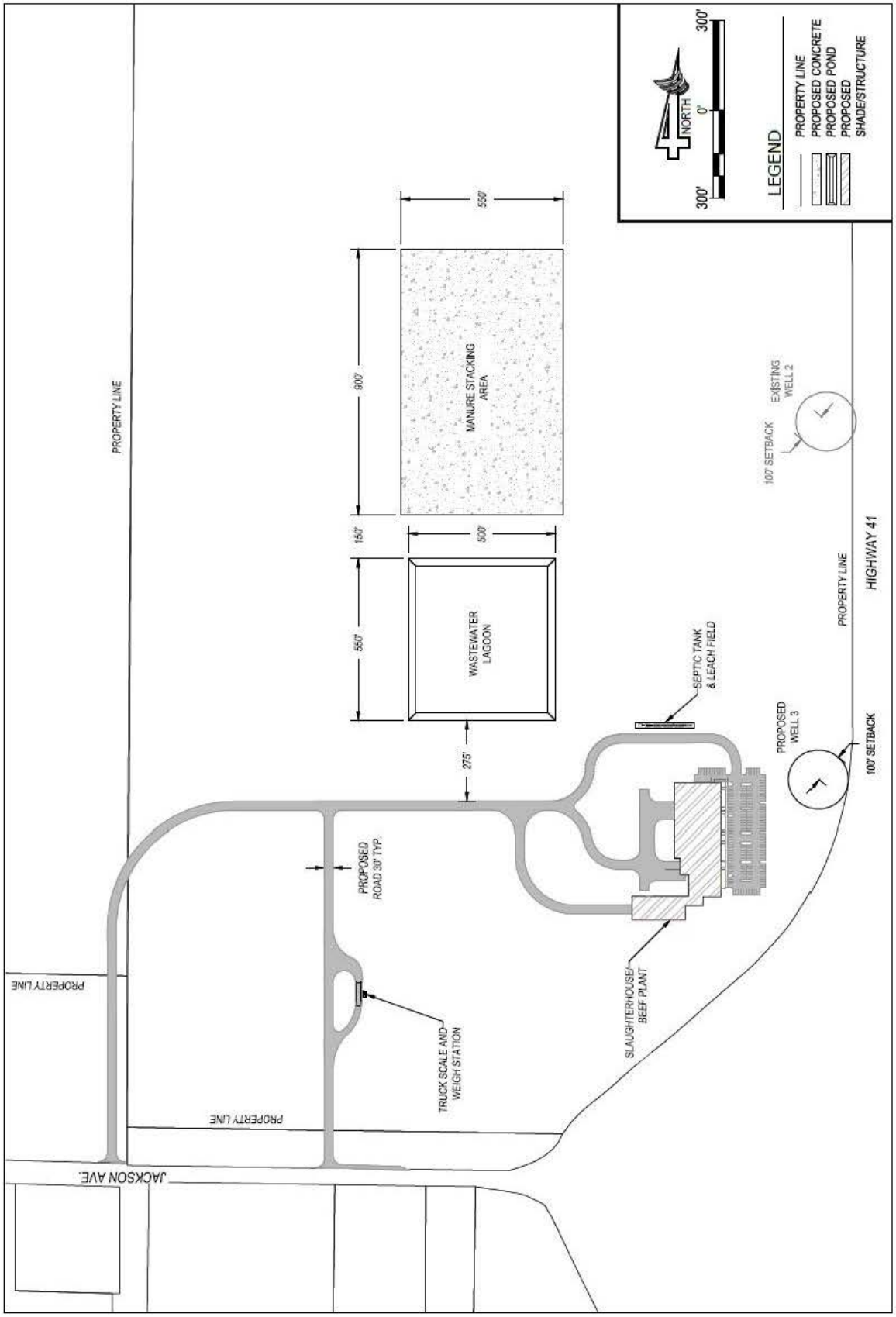

Figure 3-2. Overall Project Site Plan

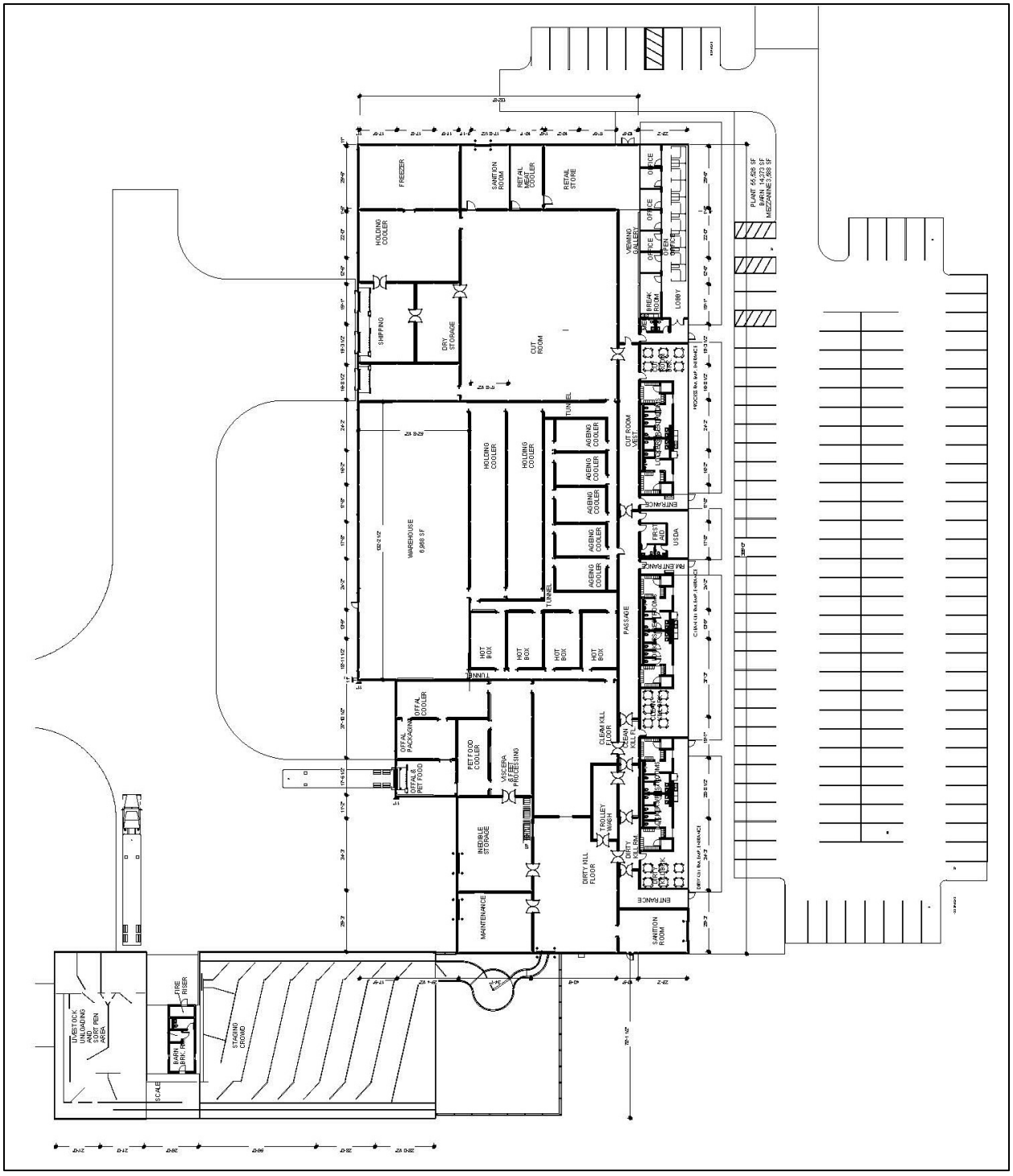

Figure 3-3. Beef Harvesting Plant Site Plan

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

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

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

    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe and mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

3.4 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

DETERMINATION: (To be completed by the Lead Agency) Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION WILL BE PREPARED.

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

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

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. A Negative Declaration 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 requested.

_____	_____
SIGNATURE	DATE
Victor Hernandez	Kings County Community Development Agency
PRINTED NAME	Agency

3.5 ENVIRONMENTAL ANALYSIS

The following section provides an evaluation of the impact categories and questions contained in the checklist and identify mitigation measures, if applicable.

I. AESTHETICS

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 a substantial adverse effect on a scenic vista?	☐	☐	☑	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within state scenic highway?	☐	☐	☐	☑
c) In non-urbanized areas, substantially degrade the existing visual character or quality 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?	☐	☐	☑	☐

Environmental Setting

The Open Space Element of the 2035 Kings County General Plan identifies a number of aesthetic resources within the County.

Kettleman Hills: The Kettleman Hills is a low mountain range within the California Interior Coastal Range. The hills reach an elevation of approximately 1,200 feet and divide the San Joaquin Valley from the much smaller Kettleman Plains to the west. The proposed project is located approximately 20 miles north-east of Kettleman Hills.

The Kings River: The Kings River is approximately 125 miles in length and flows along the northern edges of the County. The seasonal flows originate from releases from Pine Flat Reservoir. The Kings River is considered to be one of the most identifiable features in the County and is the source of the County's namesake. The Kings River is approximately 2.2 miles west of the proposed Project site.

Cross Creek: Cross Creek is a natural waterway channel that flows through the northern half of the County. Cross Creek flows are very intermittent, as water is usually diverted for agricultural use upstream. Cross Creek is located approximately 13 miles northeast of the Project site.

Scenic Highways: There are no state designated scenic highways in Kings County. A portion of SR-41, from its intersection with SR-33 through to the San Luis Obispo County line, is an eligible state scenic highway. This portion of SR-41 is located in the south-west portion of the county and is approximately 28 miles

south-west of the proposed Project Site. The following photos demonstrate the aesthetic character of the project area. As shown, the proposed Project Site is located in an area dominated by agricultural land uses.

Photo 1: Agricultural field on the site with recently cut hay. Photo looking east. Source: Live Oak Associates, Inc.

Photo 2: Irrigation ditch and agricultural fields on the site. Photo looking north. Source: Live Oak Associates, Inc.

Photo 3: Fallow agricultural field on the site. Photo looking southwest. Source: Live Oak Associates, Inc.

Photo 4: Irrigation ditch at the north end of the site and view of agricultural fields. Photo looking east. Source: Live Oak Associates, Inc

Regulatory Setting

State Scenic Highways: The State Scenic Highway Program is implemented by Caltrans and was developed to preserve the aesthetic quality of certain highway corridors. Highways included in this program are designated as scenic highways. A highway is designated as scenic based on how much of the natural landscape is visible to travelers, the quality of that landscape, and the extent to which development obstructs views of the landscape.

2035 Kings County General Plan: The 2035 Kings County General Plan includes the following objectives and policies pertaining to aesthetic resources:

- OS Objective B1.1 - Protect and enhance views from roadways which cross scenic areas or serve as scenic entranceways to cities and communities.
- OS Objective B1.2 - Preserve roadside landscapes which have high visual quality and contribute to the local environment.
- OS Objective B1.3 - Protect the scenic qualities of human-made and natural landscapes and prominent view sheds.
- LU Policy D1.3.4 - Preserve the existing nighttime environment by limiting the illumination of areas surrounding new development. New lighting that is part of residential, commercial, industrial, or recreational development shall be oriented away from sensitive uses, and should be hooded, shielded, and located to direct light pools downward and prevent glare

Kings County Development Code: Kings County Development Code Section 418(B) states that Exterior lighting should be designed to be compatible with the architectural and landscape design of the project and identifies the following exterior lighting requirements for agricultural zones:

1. All new proposed uses shall preserve the existing nighttime environment by ensuring that the outdoor lighting for the use is so arranged and/or hooded as to reflect light away from adjoining properties.
2. New lighting that is part of residential, commercial, industrial, or recreational development shall be oriented away from sensitive uses, and shall be hooded, shielded, and located to direct light pools downward and prevent glare.
3. To achieve the desired lighting level for parking and pedestrian areas, the use of more short, low intensity fixtures is encouraged over the use of a few tall fixtures that illuminate large areas.

Discussion

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

Less than Significant Impact: A scenic vista is defined as a viewpoint that provides expansive views of highly valued landscape for the benefit of the general public. The Open Space Element of the 2035 Kings County General Plan identifies three scenic vistas in Kings County- the Coastal Ranges of Kettleman Hills, the Kings River, and Cross Creek.

The proposed beef harvesting plant is located approximately 20 miles north-east of Kettleman Hills, 2.2 miles east of the Kings River, and 13 miles northeast of Cross Creek. The low profile of the proposed facilities, in conjunction with the distance between the proposed facilities to the scenic resources, ensures the project would not impact views of these features. Therefore, the Project would have a *less than significant impact* on scenic vistas.

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

No Impact: The site does not contain any rock outcropping or historic buildings. After review of the state route "scenic highways" in Kings County, it was determined that there are no highways designated by State or local agencies as "Scenic highways" near the Project Site. Therefore, the proposed project would have *no impact* to any scenic resources.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality 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 proposed Project Site is located in a non-urbanized area in east-central Kings County. The beef harvesting plant would be visible from a publicly accessible vantage point (Highway 41 and Jackson Avenue). However, because the Project Site is located in a previously disturbed vacant area, the County does not anticipate that the development of the proposed project will create a visually degraded character or quality to the Project Site or to the properties near and around the Project Site. Additionally, all of the development will be required to comply with the design review and design limitations required by the General Plan and the County's Development Code which require setbacks, landscaping and designs to limit the impact

to neighboring properties. The proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Impacts would be less than significant.

d) Would the project 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 proposes minimal outdoor lighting and does not include any notable reflective materials that could result in impacts today or nighttime views. Additionally, the project will comply with Article 1, Section 114.A.5 and Article 4, Section 418.E of the Kings County Development Code. These policies require sources of light and glare to be directed away from the sky and adjacent property lines. Consistency with these policies the project applicant will ensure that any impacts resulting from new light sources remains *less than significant.*

Mitigation Measures for Aesthetic Resources

None Required

II. AGRICULTURE AND FOREST RESOURCES:

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☑	☐	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	☐	☐	☑	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned timberland Production (as defined by Government Code section 51104(g)?	☐	☐	☐	☑
d) Result in the loss of forestland 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 forestland to non-forest use?	☐	☐	☐	☑

Environmental Setting

As one of the agricultural counties within the Central San Joaquin Valley, agriculture is a primary driver of the Kings County economy and is a significant source of regional identity. As such, agricultural land is a highly valued resource. The proposed project would involve construction on approximately 135 acres of agricultural land in the west central portion of Kings County. The proposed Project would be located mostly on land designated as Farmland of Statewide importance with some being classified as Grazing Land by the California Farmland Mapping and Monitoring Program (FMMP).

Regulatory Setting

California Farmland Mapping and Monitoring Program (FMMP): The FMMP is implemented by the California Department of Conservation (DOC) to conserve and protect agricultural lands within the State. Land is included in this program based on soil type, annual crop yields, and other factors that influence the quality of farmland. The FMMP mapping categories for the most important statewide farmland are as follows:

- *Prime Farmland* has the ideal physical and chemical composition for crop production. It has been used for irrigated production in the four years prior to classification and is capable of producing sustained yields.
- *Farmland of Statewide Importance* has also been used for irrigated production in the four years prior to classification and is only slightly poorer quality than Prime Farmland.

- *Unique Farmland* has been cropped in the four years prior to classification and does not meet the criteria for Prime Farmland or Farmland of Statewide Importance but has produced specific crops with high economic value.
- *Farmland of Local Importance* encompasses farmland that does not meet the criteria for the previous three categories. These may lack irrigation, produce major crops, be zoned as agricultural, and/or support dairy.
- *Grazing Land* has vegetation that is suitable for grazing livestock.

2035 Kings County General Plan: The Land Use Element, the Open Space Element and the Resource Conservation Element of the 2035 Kings County General Plan includes the following objectives and policies pertaining to agricultural resources:

- LU Goal B1: Protect agricultural lands throughout the County, and in particular along the edges of community districts and Urban Fringe by maintaining large parcel sizes and preventing the premature development of incompatible urban uses
- LU Goal B2: Agricultural production continues to be supported and enhanced in areas designated for agriculture, while conflicts between agriculture and nonagricultural uses are minimized
    - Land Use Objective B2.1: Recognize agriculture as the highest and best use of agricultural designated land, and preserve the right of farmers and agricultural operations to continue customary and usual agricultural practices, and operate in the most efficient manner possible.
        - LU Policy B2.1.1: The primary use of land designated Limited Agriculture, General Agriculture, and Exclusive Agriculture shall remain devoted to agricultural uses and related support services
- Open Space Objective A1.1: Protect agricultural land as an important, sustainable component of the Kings County economy
    - Policy A1.1.1: Preserve agricultural land in open and economically sustainable sized parcels for farming and establishment of agricultural processing facilities
    - Policy A1.1.2: Recognize agricultural land as a valued open space feature within the County that promotes the economy, public welfare, and quality of life for Kings County residents
- Resource Conservation Objective B1.1: Identify the County's highest priority agricultural lands that are critical to the County's agricultural economy, prime soils, and water availability, and emphasize higher preservation efforts for these areas.
- Resource Conservation Objective B1.2: Establish feasible mitigation for the loss of agricultural land conversion that is not over burdensome to landowner and development interests, yet enhances long term preservation efforts of the County's highest priority agricultural lands.
    - Resource Conservation Policy B1.2.1: Require new development that results in the loss of agricultural lands to provide mitigation to offset the loss. The County's Farmland Preservation Mitigation Strategy shall require comparable acreage enrollment in the County's Farmland Security Zone.
    - Resource Conservation Policy B1.2.2: Conversion of agricultural land to urban uses shall require payment of mitigation fees that are based on average per acre fee for the establishment of a new Farmland Security Zone creation. All mitigation costs shall be borne by project proponent(s).
    - Resource Conservation Policy B1.2.3: Under the County's existing program, mitigation fees shall be used for the creation of new Farmland Security Zone contracts only and applied on willing landowner property that is greater than ten acres and located within the "Medium," "Medium-High" and "Highest" Priority Agricultural Land as defined under

the County's Priority Agricultural Land Model, and within the eligible Department of Conservation farmland classifications as required by the California Land Conservation Act of 1965.

- Resource Conservation Policy C1.1.2: Evaluate the effects of the loss of agricultural soils related to discretionary land use approvals for non-agricultural uses that are allowed in agriculturally zoned land.

Kings County Right-to-Farm Policy: The *Kings County Code of Ordinances* Section 14-36.1, the "Notice of Disclosure and Acknowledgment of Agricultural Land Use Protection and Right to Farm Policies of the County of Kings," (Right-to-Farm) requires the approvals of rezoning, land divisions, zoning permits, and residential building permits include a condition that notice and disclosure be provided, which is to be recorded with the property title, page that specifically acknowledges and notifies all future owners that they are in proximity to agricultural uses, and lists the types of operations and possible nuisances or inconveniences associated with farming such as equipment and animal noises; farming activities conducted on a 24-hour, 7-day a week basis; odors from manure, fertilizers, pesticides, chemicals, or other sources; the aerial and ground application of chemicals and seeds; dust; flies and other insects; and smoke. The ordinance states that the County does not consider normal farming operations involving these activities to be a nuisance, and that current owners and future purchasers should be prepared to accept such annoyances or discomfort from normal, usual, and customary agricultural operations, facilities, and practices. This Right-to-Farm disclosure policy establishes the primacy of agricultural operations over other land uses, and reduces the potential for conflict with adjacent land uses.

Discussion

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

Less than Significant Impact with Mitigation Incorporated: The proposed project is located on land that is designated as Farmland of Statewide Importance and Grazing Land and would convert existing Farmland of Statewide Importance to a non-agricultural use. The proposed project is not considered a commercial agricultural use, but rather, a compatible use that is a conditionally permitted use within the AG-20 zone. In order to comply with General Plan RC Policies B1.2.1, B1.2.2, B1.2.3 and C1.1.2 and reduce the project impacts to agricultural resources of the site to less than significant levels, mitigation measure AG-1 shall be implemented. Therefore, the project would have *a less than significant impact with mitigation incorporated.*

Mitigation Measure:

AG-1 Prior to issuance of building permits, the applicant shall mitigate for the loss of Farmland of Statewide Importance at a ratio of 1:1 with restrictive covenants, which are effective for the life of this project. The agricultural land preserved under the restrictive covenants shall be of equal or greater quality as defined by the California Department of Conservation's Farmland Mapping and Monitoring Program.

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

Less than Significant Impact: The Project Site is located in the AG-20 zone district and will *not* conflict with this zoning. Article 4, Section 407 of the Kings County Development Code states that Table 4-1 prescribes the land use regulations for "Agricultural" districts. The regulations for each district are established by letter designation shown in the key of Table 4-1. Table 4-1 lists agricultural produce processing, packing, and shipping facilities, including slaughterhouses as a conditional use subject to Kings County Planning Commission approval in the General Agricultural (AG-20) zone district. Therefore, approval of a conditional use permit would be required in order for the proposed use to comply with Section 407 and Table 4-1.

The proposed Project site is restricted by a Williamson Act contract. The *Uniform Rules for Agricultural Preserves in Kings County* state that during the term of the contract, the only uses permitted upon the land shall be Commercial Agricultural Uses and Compatible Uses. Section B.12 of the Uniform Rules for Agricultural Preserves in Kings County lists Agricultural produce processing facilities for the processing of food, feed, fiber and fertilizers, and other similar activities, which convert raw agricultural produce that is grown or raised on farmland to a ready-for-market condition by canning, bottling, cooking, drying, mixing, combining, cutting, crushing, packing, packaging, or some other form of processing, on land zoned either AG-20 or AG-40 subject to the approval of a conditional use permit by the Planning Commission including any environmental review which may be required, and in compliance with the requirements found in Section 51238.1 of the California Government Code as a Compatible Use. The project would not conflict with the existing zoning for agricultural land use or a Williamson Act contract. Therefore, the project would have *a less than significant impact.*

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

No Impact: The Project Site does not contain forest land, timberland or timberland zoned Timberland Production; the Project Site is not zoned for forest or timberland production; and there is no zone change proposed for the site. Therefore, *no impacts* would occur.

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

No Impact: No loss of forest land or conversion of forestland, as defined under Public Resource Code or General Code, to non-forest use will occur as a result of the project and there would be *no impacts*.

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

No Impact: As discussed in Impact Analysis II-a above, the proposed project does not convert Prime Farmland, Unique Farmland, or Farmland of Statewide importance (Farmland) to non-agricultural use. As discussed in Impact Analysis II-c above, the Project Site is not located in the vicinity of forestland; therefore, the proposed project would not convert forest land to non-forest use. *Thus, no impact* would occur.

III. AIR QUALITY

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

Environmental Setting

Air pollution is directly related to regional topography. Topographic features can either stimulate the movement of air or restrict air movement. California is divided into regional air basins based on topographic air drainage features. The proposed Project Site is within the San Joaquin Valley Air Basin, which is bordered by the Sierra Nevada Mountains to the east, Coastal Ranges to the west, and the Tehachapi Mountains to the south.

The mountain ranges surrounding the San Joaquin Valley Air Basin (SJVAB) serve to restrict air movement and prevent the dispersal of pollution. As a result, the SJVAB is highly susceptible to pollution accumulation over time. As shown in the Table 3-2, the SJVAB is in nonattainment for several pollutant standards.

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone - One hour	No Federal Standard[f]	Nonattainment/Severe
Ozone - Eight hour	Nonattainment/Extreme[e]	Nonattainment
PM 10	Attainment[c]	Nonattainment
PM 2.5	Nonattainment[d]	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead (Particulate)	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

[a] See 40 CFR Part 81
[b] See CCR Title 17 Sections 60200-60210
[c] On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM10 National Ambient Air Quality Standard (NAAQS) and approved the PM10 Maintenance Plan.
[d] The Valley is designated nonattainment for the 1997 PM2.5 NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5 NAAQS on November 13, 2009 (effective December 14, 2009).
[e] Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).

[f] Effective June 15, 2005, the U.S. Environmental Protection Agency (EPA) revoked the federal 1-hour ozone standard, including associated designations and classifications. EPA had previously classified the SJVAB as extreme nonattainment for this standard. EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.

Table 3-2. San Joaquin Valley Attainment Status; Source: SJVAPCD

Valley Fever: Valley Fever is an illness caused by a fungus (*Coccidioides immitis* and *C. posadasii*) that grows in soils under certain conditions. Favorable conditions for the Valley Fever fungus include low rainfall, high summer temperatures, and moderate winter temperatures. In California, the counties with the highest incident of Valley Fever are Fresno, Kern and Kings Counties. When soils are disturbed by wind or activities like construction and farming, Valley Fever fungal spores can become airborne. The spores present a potential health hazard when inhaled. Individuals in occupations such as construction, agriculture, and archaeology have a higher risk of exposure due to working in areas of disturbed soils which may have the Valley Fever fungus.

Regulatory Setting

Federal Clean Air Act - The 1977 Federal Clean Air Act (CAA) authorized the establishment of the National Ambient Air Quality Standards (NAAQS) and set deadlines for their attainment. The Clean Air Act identifies specific emission reduction goals, requires both a demonstration of reasonable further progress and an attainment demonstration, and incorporates more stringent sanctions for failure to meet interim milestones. The U.S. EPA is the federal agency charged with administering the Act and other air quality-related legislation. EPA's principal function includes setting NAAQS; establishing minimum national emission limits for major sources of pollution; and promulgating regulations. Under CAA, the NCCAB is identified as an attainment area for all pollutants.

California Clean Air Act - California Air Resources Board coordinates and oversees both state and federal air pollution control programs in California. As part of this responsibility, California Air Resources Board monitors existing air quality, establishes California Ambient Air Quality Standards, and limits allowable emissions from vehicular sources. Regulatory authority within established air basins is provided by air pollution control and management districts, which control stationary-source and most categories of area-source emissions and develop regional air quality plans. The project is located within the jurisdiction of the San Joaquin Valley Air Pollution Control District.

The state and federal standards for the criteria pollutants are presented in Section 8.4 of The San Joaquin Valley Unified Air Pollution Control District's 2015 "Guidance for Assessing and Mitigating Air Quality Impacts" (see Table 3-3, below). These standards are designed to protect public health and welfare. The "primary" standards have been established to protect the public health. The "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soils, water, visibility, materials, vegetation and other aspects of general welfare. The U.S. EPA revoked the national 1-hour ozone standard on June 15, 2005, and the annual PM_{10} standard on September 21, 2006, when a new $PM_{2.5}$ 24-hour standard was established.

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (03)	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	--	Same as Primary Standard	Ultraviolet 8 Hour Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.075 ppm (147 µg/m³)		
	24 Hour	50 µg/m	Gravimetric or Beta Attenuation	150 µg/m³		

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m3		--	Same as Primary Standard	Inertial Separation and Gravimetric Annual Analysis
Fine Particulate Matter ($PM_{2.5}$)	24 Hour		Gravimetric or Beta Attenuation	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Annual Analysis
	Annual Arithmetic Mean	12 µg/m^3		12 µg/m^3		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	--	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	--	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		--	--	
Nitrogen Dioxide (NO_2) [8]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	--	Gas Phase Annual Chemiluminescence
	Arithmetic Mean	0.030 ppm (57 µg/m^3)		53 ppb (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	--	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	--		--	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)9	--	
	Annual Arithmetic Mean	--		0.030 ppm (for certain areas)9	--	
Lead[10,11]	30 Day Average	1.5 µg/m^3	Atomic Absorption	--	--	High Volume Sampler and Atomic Absorption
	Calendar Quarter	--		1.5 µg/m3 (for certain areas)11	Same as Primary Standard	
	Rolling 3-Month Average	--		0.15 µg/m^3		
Visibility Reducing Particles[12]	8 Hour	See footnote 12	Beta Attenuation and Transmittance through Filter Tape	No National Standard		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[10]	24 Hour	0.01 ppm	Gas Chromatography			

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
		(26 µg/m^3)				

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.
9. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
10. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
11. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
12. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Table 3-3. Ambient Air Quality Standards; Source: SJVAPCD

San Joaquin Valley Air Pollution Control District (SJVAPCD) – The SJVAPCD is responsible for enforcing air quality standards in the project area. To meet state and federal air quality objectives, the SJVAPCD adopted the following thresholds of significance for projects:

Pollutant/Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM10	15	15	15
PM2.5	15	15	15

Table 3-4. SJVAPCD Thresholds of Significance for Criteria Pollutants; Source: SJVAPCD

Discussion

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

Less than Significant Impact: The proposed project is located within the boundaries of the San Joaquin Valley Air Pollution Control District (SJVAPCD) and would result in air pollutant emissions that are regulated by the air district during both its construction and operational phases. The SJVAPCD is responsible for bringing air quality in Kings County into compliance with federal and

state air quality standards. The air district has Particulate Matter (PM) plans, Ozone Plans, and Carbon Monoxide Plans that serve as the clean air plan for the basin.

Together, these plans quantify the required emission reductions to meet federal and state air quality standards and provide strategies to meet these standards. The air basin is currently in nonattainment for the state eight-hour ozone, PM 10 standards, and PM 2.5 standards, and in nonattainment for the federal eight-hour ozone and PM 2.5 standards. The air basin is in severe nonattainment for the state one-hour ozone and extreme nonattainment for the federal eight-hour ozone. A project is considered to be compliant with SJVAPCD Air Quality Control Plans if the project-generated emissions are below the SJVAPCD's significance thresholds.

Construction Phase. Construction of the proposed beef harvesting plant would generate pollutant emissions from the following construction activities: site preparation, grading, building construction, application of architectural coatings, and paving. The short-term emissions from these activities were calculated using CalEEMod. The full CalEEMod Report can be found in Appendix A. As shown in Table 3-5 below, project construction related emissions do not exceed the thresholds for criteria pollutants established by the SJVAPCD.

	CO (tpy)	ROG (tpy)	SOx (tpy)*	Nox (tpy)	PM10 (tpy)	PM2.5 (tpy)
Emissions Generated from Project Construction	**2.0724**	**0.5467**	**0.00409**	**1.9202**	**0.2581**	**0.1501**
SJVAPCD Thresholds of Significance	**100**	**10**	**27**	**10**	**15**	**15**
*Threshold established by SJVAPCD for SOx, however emissions are reported as SO2 by CalEEMod.						

Table 3-5. Projected Project Emissions Compared to SJVAPCD Thresholds of Significance for Criteria Pollutants related to Construction; Source: SJVAPCD, CalEEMod Analysis (Appendix A)

Operational Phase. Operation of the proposed beef harvesting plant would result in long-term criteria pollutant emissions associated with mobile, energy, and area sources. Operational emissions from these factors were calculated using CalEEMod. The full CalEEMod Report can be found in Appendix A. As shown in Table 3-6, the project's operational emissions do not exceed the thresholds established by the SJVAPCD. Analysis of operational emissions included the following non-default values.

- Project-specific Fleet Mix (See Appendix D)
- Project-Related Trips expected to average 55.78 one-way trips per day (See Appendix E)
- Water demand estimated to be 50,000 gallons per day

	CO (tpy)	ROG (tpy)	SOx (tpy)*	Nox (tpy)	PM10 (tpy)	PM2.5 (tpy)
Operational Emissions	**0.6204**	**0.4011**	**.0.00215**	**0.2835**	**0.1403**	**0.0429**
SJVAPCD Thresholds of Significance	**100**	**10**	**27**	**10**	**15**	**15**
*Threshold established by SJVAPCD for SOx, however emissions are reported as SO2 by CalEEMod.						

Table 3-6. Projected Project Emissions Compared to SJVAPCD Thresholds of Significance for Criteria Pollutants related to Operations; Source: SJVAPCD, CalEEMod Analysis (Attachment A of Appendix A)

Because emissions from project construction and operation are below the thresholds of significance established by the SJVAPCD, the project would not conflict with an applicable air quality plan and the impact is *less than significant.*

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 SJVAPCD accounts for cumulative impacts to air quality in Section 1.8 "Thresholds of Significance – Cumulative Impacts" in its 2015 Guide for Assessing and Mitigating Air Quality Impacts. The SJVAPCD considered basin-wide cumulative impacts to air quality when developing its significance thresholds. Because construction and operational emissions are below the significance thresholds adopted by the air district, impacts regarding cumulative emissions would be *less than significant.*

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

Less than Significant Impact: Sensitive receptors are people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling unit(s). The rural residence located west of the Project site is the nearest sensitive receptor. This residence is approximately 180 feet from the Project property line, 600 feet from the area of closest area of disturbance (a proposed drive aisle), and 0.4 miles from the proposed beef harvesting plant.

The SJVAPC District recommends the development project(s) be evaluated for potential health impacts to surrounding receptors (on-site and off-site) resulting from operational and multi-year construction TAC emissions.

Diesel particulate matter (DPM) represents the primary toxic air contaminates (TAC) of concern associated with Project construction. During project construction, DPM would be generated as a result of the operation of internal combustion engines from on-site construction equipment. However, because construction is expected to occur within a one-year period, DPM emissions resulting from construction activities are considered to have a less than significant impact on sensitive receptors.

TAC emission generated during operation of the proposed beef harvesting plant were assessed through comparison to Central Valley Meat Company, which is another beef processing facility in Kings County. Central Valley Meat Company processes approximately 1,500 head of cattle per day. By comparison, the Sandridge Beef Harvesting Facility would only process 210 cattle per day, approximately 86% less than Central Valley Meat Company. Therefore, it is conservative to presume that emissions from operation of the Sandridge Beef Processing Facility would be at least 75% less than those of Central Valley Meat Company.

TAC emissions from Central Valley Meat Company were obtained using the California Air Resources Board Facility Search Engine. A summary of annual TAC emissions reported by Central Valley Meat Company and estimated for the Sandridge Beef Harvesting Plant are provided in Table 3-7, below.

	Annual Emissions (lbs/Year)	
	Central Valley Meat Company	Sandridge Beef Harvesting Plant (Project)
Benzene	0.200	0.050
Toluene	1.100	0.275
Xylene	0.800	0.200
Acetaldehyde	0.100	0.025
Acrolein	0.100	0.025
Diesel engine exhaust, particulate matter (Diesel PM)	17.000	4.250
Ethyl benzene	0.300	0.075
Formaldehyde	0.500	0.125
Hexane	0.200	0.050
Naphthalene	0.000	0.000
Propylene	21.600	5.400

Table 3-7. TAC Emissions estimated through comparison to Central Valley Meat Company. Source: California Resources Board Facility Search Engine.

The Air District's prioritization screening tool was used to evaluate the potential health risks resulting from operational emissions. According to the Air District guidance, projects that obtain a prioritization score of 10 or more for the exposed individual are considered to be potentially significant and an HRA would be required. The results of Prioritization Screening are provided in Table 3-8, below.

Receptor Proximity (in meters)	Max Score
0 < R < 100	9.836
100 < R < 250	2.459
250 < R < 500	0.393
500 < R < 1,000	0.108
1,000 < R < 1,500	0.030
1,500 < R < 2,000	0.020
2,000 < R	0.010

Table 3-8. Project Prioritization Scores. Source: SJVAPCD Prioritization Calculator.

As shown in Table 3-8, the prioritization score for the nearest sensitive receptor (0.4 miles or 644 meters) falls well below 10. Therefore, impacts are considered to be l*ess than significant.*

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: Although some typical construction-related odors would be generated during project construction, these odors are not anticipated to affect a substantial number of people or be particularly adverse. The nearest sensitive receptor to the project site is a rural residence, which is located approximately 180 feet from the Project property line, 600 feet from the area of closest area of disturbance (a proposed drive aisle), and 0.4 miles from the proposed beef harvesting plant.

The proposed Beef Harvesting Plant is considered to be a potentially odor generating source. The SJVAPCD GAMAQI outlines the screening level for this type of potential odor sources as 1 mile.

There are six residences located within 1 mile of the proposed facility. The distance of each residence to the proposed facility is summarized in Table 3-9, below.

Residence	Distance to Proposed Beef Harvesting Plant
Residence A	0.44 miles
Residence B	0.68 miles
Residence C	0.82 miles
Residence D	0.89 miles
Residence E	0.95 miles
Residence F	0.96 miles

Table 3-9. Distance to sensitive Receptors

While the project could act as a potential odor source based on SJVAPCD GAMAQI screening thresholds, the project would implement standard odor management practices as conditions of approval that would prevent significant impacts from occurring. Blood, dead animals and offal will be collected and removed from the site on a daily basis, all processing will occur inside, all raw finished products will be stored inside the building, and doors will be kept closed. These operational practices will contain odors within the building and greatly limit the potential for odors to have a significant impact on sensitive receptors on nearby properties. Momentary odorous releases may occur when doors are opened, however the project is located in an agricultural land use area so these would not be significant in comparison to other nearby agricultural operations. The impact is *less than significant.*

Mitigation Measures for Air Quality

None Required

IV. BIOLOGICAL RESOURCES

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 & Game or U.S. fish and Wildlife Service?	☐	☑	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☑
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through director 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?	☐	☐	☐	☑

Discussion for this section originates from the Biological Evaluation that was prepared for this project by Live Oak Associates, Inc. to identify sensitive biological resources, provide project impact analysis, and suggest mitigation measures. The full document can be found in Appendix B.

Environmental Setting

The project site is located in northern Kings County northwest of State Route (SR) 41 and Jackson Avenue, approximately one mile south of the City of Lemoore. The project site may be found on the Lemoore U.S. Geological Survey (USGS) 7.5-minute quadrangle; Sections 16, 20, and 21, Township 19 South, Range 20 East (Mt. Diablo Base and Meridian). The project site consists of agricultural fields and irrigation ditches. The site has been utilized for agricultural purposes since at least 1994. Natural biotic habitats are absent from the project site due to decades of agricultural use of the site. Immediately surrounding lands consist of agricultural fields, the SR 41 corridor, orchards, rural residential, commercial, and patches of natural lands. Topographically, the site is relatively level with a mean elevation of approximately 195 ft. National Geodetic Vertical Datum (NGVD).

The project site experiences a Mediterranean climate where warm dry summers are followed by cool moist winters. Summer temperatures commonly exceed 100 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely rise much above 70 degrees Fahrenheit. Annual precipitation within the project site is about 9 inches, almost 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain. Storm water readily infiltrates the soils.

Aquatic features in the near vicinity of the site include the Kings River approximately 2 miles to the west and various irrigation ditches and canals. Five soil mapping units were identified within the project site (NRCS 2021). These consist of 137: Lemoore sandy loam, partially drained; 119: Grangeville sandy loam, saline-alkali; 118: Goldberg loam, partially drained; 134: Lakeside loam, partially drained; and 103: Boggs sandy loam, partially drained. Soils of the project site have been substantially altered by regular agricultural use of the land in the form of grading, discing, addition of soil amendment, and crop production. As a result, the soils of the site no longer maintain their native soil characteristics and would, therefore, have no particular significance to biological resources of the site.

Regulatory Setting

Federal Endangered Species Act (FESA) - defines an *endangered species* as "any species or subspecies that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species or subspecies that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."

Clean Water Act - Section 404 of the Clean Water Act of (1972) is to maintain, restore, and enhance the physical, chemical, and biological integrity of the nation's waters. Under Section 404 of the Clean Water Act, the US Army Corps of Engineers (USACE) regulates discharges of dredged and fill materials into "waters of the United States" (jurisdictional waters). Waters of the US including navigable waters of the United States, interstate waters, tidally influenced waters, and all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries.

California Endangered Species Act (CESA) – prohibits the take of any state-listed threatened and endangered species. CESA defines *take* as "any action or attempt to hunt, pursue, catch, capture, or kill any listed species." If the proposed project results in a take of a listed species, a permit pursuant to Section 2080 of CESA is required from the CDFG.

2035 Kings County General Plan: The Resource Conservation Element of the 2035 Kings County General Plan includes the following objectives pertaining to biological resources:

- Resource Conservation Objective D1.1 Require that development in or adjacent to important natural plant and animal habitats minimize the disruption of such habitats.
- Resource Conservation Objective D2.1 Maintain compatible land uses in natural wetland habitats designated by state and federal agencies.
- Resource Conservation Objective D3.1 Ensure that, in development decisions affecting riparian environments, the conservation of fish and wildlife habitat and the protection of scenic qualities are balanced with other purposes representing basic health, safety, and economic needs.

- Resource Conservation Objective E1.1 Require mitigation measures to protect important plant and wildlife habitats.
- Resource Conservation Objective F1.1 Protect freshwater recreational fishing along the Kings River and the California Aqueduct by balancing agricultural and development needs with the protection of these resources.

Discussion

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 & Game or U.S. Fish and Wildlife Service?

Less than Significant Impact with Mitigation Incorporated: Natural biotic habitats are absent from the project site due to decades of agricultural use of the site. In the unlikely event that any special status species are present and would be affected by the project, implementation of Mitigation Measures BIO-1a, BIO-1b, BIO-1c, BIO-2a, BIO-2b, BIO-2c, BIO-2d, BIO-3a, BIO-3b, BIO-3c will ensure that impacts to species identified as a candidate, sensitive, or special status would be *less than significant with mitigation incorporated.*

Mitigation Measures:

Mitigation Measures for Swainson's Hawk

BIO-1a: Construction Timing. If feasible, project construction will occur entirely outside the Swainson's hawk nesting season, typically defined as March 1- September 15.

BIO-1b: Preconstruction Surveys. If construction activities must occur between March 1 and September 15, then within 10 days prior to the start of work, a qualified biologist will conduct preconstruction surveys from publicly accessible roads for Swainson's hawk nests within ½ mile of the work area(s) in question.

BIO-1c: Avoidance. Should any active nests be identified, the biologist will establish a suitable disturbance-free buffer around the nest, to be maintained until the biologist has determined that the young have fledged.

Mitigation Measures for Nesting Birds Including the Tricolored Blackbird and Northern Harrier

BIO-2a: Avoidance. In order to avoid impacts to nesting migratory birds and raptors, construction will occur, where possible, outside the nesting season, or between September 1 and January 31.

BIO-2b: Preconstruction Surveys. If construction must occur during the nesting season (February 1-August 31), a qualified biologist will conduct preconstruction surveys for active migratory bird and raptor nests within 10 days of the onset of these activities. Nest surveys will include all areas on and within 500 feet of the project site, where accessible. Inaccessible areas will be surveyed using binoculars or a spotting scope. If no active nests are found within the survey area, no further mitigation is required.

BIO-2c: Establish Buffers. Should any active nests be discovered in or near proposed work areas, the biologist will determine appropriate construction setback distances based on applicable CDFW guidelines and/or the biology of the affected species. Construction-free buffers will be identified on the ground with flagging, fencing, or by other easily visible means, and will be maintained until the biologist has determined that the young have fledged.

BIO-2d: Nest Monitoring. Should construction need to occur within the construction free buffers, then prior to initiation of these activities a qualified biologist will conduct a survey to establish a behavioral baseline of the affected nest(s). When construction begins within the buffer, the qualified biologist will continuously monitor nests to detect behavioral changes resulting from the project. If behavioral changes occur, the work causing that change will cease. If there are no behavioral changes after one week of monitoring, then monitoring may be reduced as determined by the biologist.

Mitigation Measures for Burrowing Owl

BIO-3a: Take Avoidance Survey. A take avoidance survey for burrowing owls will be conducted by a qualified biologist no less than 14 days prior to the start of construction. This take avoidance survey will be conducted according to methods described in the Staff Report on Burrowing Owl Mitigation (CDFG 2012). The survey area will include all potential roosting and nesting habitat on and within 500 feet of project impact areas, where accessible. Inaccessible areas will be surveyed from within the project boundaries or publicly accessible roads using binoculars.

BIO-3b: Avoidance of Active Nests. If pre-construction surveys are undertaken during the breeding season (February 1 through August 31) and active nest burrows are located within or near construction zones, a construction-free buffer of 250 feet should be established around all active owl nests. The buffer areas should be enclosed with temporary fencing or flagging, and construction equipment and workers should not enter the enclosed setback areas. Buffers should remain in place for the duration of the breeding season. After the breeding season (i.e. once all young have left the nest), passive relocation of any remaining owls may take place as described below.

BIO-3c: Passive Relocation of Resident Owls. During the non-breeding season (September 1-January 31), resident owls occupying burrows in project impact areas may either be avoided, or passively relocated to alternative habitat. If the applicant chooses to avoid active owl burrows within the impact area during the non-breeding season, a 150-foot disturbance-free buffer will be established around these burrows. The buffers will be enclosed with temporary fencing, and will remain in place until a qualified biologist determines that the burrows are no longer active. If the applicant chooses to passively relocate owls during the non-breeding season, this activity will be conducted in accordance with a relocation plan prepared by a qualified biologist.

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 Game or US Fish and Wildlife Service?

No Impact: Sensitive Natural Communities are those that are of limited distribution, distinguished by significant biological diversity, home to special status plant and animal species, of importance in maintaining water quality or sustaining flows, etc. Examples of sensitive natural communities include various types of wetlands, riparian habitat, and valley scrub habitats. CDFW has assigned State Ranks to California's natural communities that reflect the condition and imperilment of that community throughout its range within the state. State Ranks are represented with a letter and number score.

Older ranks, which need to be updated in the CNDDB, may still contain a decimal "threat" rank of .1, .2, or .3, where .1 indicates very threatened status, .2 indicates moderate threat, and .3 indicates few or no current known threats. The project site supports no sensitive natural communities. There is *no impact.*

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact: Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the USACE, the CDFW, and the RWQCB. See Section 3.8 of Appendix B for additional information. Jurisdictional waters are absent from the Project Site. There is *No Impact.*

d) Would the project 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: Geographic features that could be utilized as wildlife movement corridors are absent from the project site. Therefore, the project will have *no impact* on wildlife movement corridors.

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

No Impact: The Resource Conservation Element lists policies protecting biological resources (2035 Kings County General Plan, pages RC-47 through RC-50). The project is consistent with all relevant policies, including RC Policy D1.1.1 and RC Policy E1.1.1, which require the preparation of a biological evaluation to ensure the minimization of potential impacts to sensitive plant and animal habitats, wetlands, and riparian habitats; and consultation with state and federal regulatory agencies, where required, to ensure avoidance or minimization of potential impacts to threatened and endangered species. The Project does not conflict with any local policies or ordinances protecting biological resources. There is *no impact.*

f) Would the project 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 proposed project appears to be consistent with the goals and policies of the 2035 Kings County General Plan. No known Habitat Conservation Plans, Natural Community Conservation Plans or other approved local, regional, or state habitat conservation plan are in effect for the area. Therefore, the project would be carried out in compliance with local policies and ordinances. There is *no impact.*

V. CULTURAL RESOURCES

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

Environmental Setting

Taylored Archaeology conducted background research and pedestrian survey of the Project boundary to determine whether prehistoric and historic resources will be affected by the Project. The investigation included: (1) a records search at the SSJVIC; (2) a request of the NAHC Sacred Lands File including the tribal representatives' contact information, and nongovernmental tribal outreach; (3) archival research; (4) an archaeological pedestrian survey; and (5) documentation of resources identified within the Project boundary.

Results from SSJVIC records search indicated that there have been no previous cultural resource investigations conducted within the Project area. The records search did not identify any known cultural resources within the Project area or within a 0.5-mile radius surrounding area but did note six cultural resource investigations conducted within a 0.5-mile radius. A review of report KI-00033 revealed a prehistoric cultural resource potentially located within 0.5 miles from the Project site. The prehistoric cultural resource (P-16-000233) was a prehistoric burial and associated artifacts excavated in 1962.

The archaeological pedestrian survey of the Project site did not identify any prehistoric resources. However, two canals were discovered on the Project site. 1) An unnamed canal that was at least 6 months old and privately owned and 2) A historic-era feature, a canal segment named Lateral 10 of the Lemoore Canal was identified in the Project boundary during the survey. The segment of Lateral 10 within the Project boundary was evaluated and found to not be eligible for inclusion within the CRHR. If the greater Lemoore Canal system is evaluated at a later date and found to be eligible for inclusion in the National Register of Historic Places (NRHP), then Lateral 10 may be potentially eligible for listing in the NRHP if it is found to be a contributor to the potential historical eligibility of the Lemoore Canal system.

Regulatory Setting

Definitions

Historical Resource: Historical resources are defined by CEQA as resources that are listed in or eligible for the California Register of Historical Resources, resources that are listed in a local historical resource register, or resources that are otherwise determined to be historical under California Public Resources

Code Section 21084.1 or California Code of Regulations Section 15064.5. Under these definitions Historical Resources can include archaeological resources, Tribal cultural resources, and Paleontological Resources. Section 15064.5 of the California Code of Regulations states that the term "historical resources" shall include the following:

1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4850 et seq.).
2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code, § 5024.1, Title 14 CCR, Section 4852) including 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; or
    d) Has yielded, or may be likely to yield, information important in prehistory or history.

    The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

Archaeological Resources. As stated above, archaeological resources may be considered historical resources. If they do not meet the qualifications under the California Public Resources Code 21084.1 or California Code of Regulations Section 15064.5, they are instead determined to be "unique" as defined by the CEQA Statute Section 21083.2. A unique archaeological resource is an artifact, object, or site that: (1) contains information (for which there is a demonstrable public interest) needed to answer important scientific research questions; (2) has a special and particular quality, such as being the oldest of its type or the best available example of its type; or (3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

Tribal Cultural Resource (TCR). Tribal Cultural Resources can include site features, places, cultural landscapes, sacred places, or objects, which are of cultural value to a Tribe. It is either listed on or eligible for the CA Historic Register or a local historic register, or determined by the lead agency to be treated as TCR.

National Historic Preservation Act: The National Historic Preservation Act was adopted in 1966 to preserve historic and archeological sites in the United States. The Act created the National Register of Historic Places, the list of National Historic Landmarks, and the State Historic Preservation offices.

California Historic Register: The California Historic Register was developed as a program to identify, evaluate, register, and protect Historical Resources in California. California Historical Landmarks are sites, buildings, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, experimental, or other value. In order for a resource to be designated as a historical landmark, it must meet the following criteria:

- The first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California).
- Associated with an individual or group having a profound influence on the history of California.
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer or master builder.

California Health and Safety Code Section 7050.5: Section 7050.5 of the California Health and Safety Code states the following with regard to the discovery or recognition of human remains:

a) Every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the Public Resources Code. The provisions of this subdivision shall not apply to any person carrying out an agreement developed pursuant to subdivision (l) of Section 5097.94 of the Public Resources Code or to any person authorized to implement Section 5097.98 of the Public Resources Code.
b) In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.
c) If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

2035 Kings County General Plan: The Resource Conservation Element of the 2035 Kings County General Plan includes the following objectives pertaining to cultural and historic resources:

- Resource Conservation Objective I1.1 Promote the rehabilitation or adaptation to new uses of historic sites and structures.

- Resource Conservation Objective I1.2 Identify potential archaeological and historical resources and, where appropriate, protect such resources.

Discussion

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

Less than Significant Impact: Based on the results of the Cultural Resources Assessment conducted by Taylored Archaeology for the proposed Project, there are no known historical resources located within the Project Site. The Cultural Resources Assessment found that impacts to historical resources would be *less than significant.*

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

Less than Significant Impact with Mitigation Incorporated: Based on the results of the Cultural Resources Assessment conducted by Taylored Archaeology for the proposed Project, there are no known archaeological resources located within the Project Site. However, the site was found to be within an area of high sensitivity for the potential presence of buried prehistoric archaeological deposits. Implementation of Mitigation Measures CUL-1, CUL-2, CUL-3 and CUL-4 will ensure that impacts to archaeological resources will be *less than significant with mitigation incorporated*.

Mitigation Measures:

CUL-1: Native American pre-construction briefing & monitoring. Prior to any ground disturbance, the proponent shall retain Santa Rosa Rancheria Cultural Staff to provide a pre-construction Cultural Sensitivity Training to construction staff regarding the discovery of cultural resources and the potential for discovery during ground disturbing activities, which will include information on potential cultural material finds and on the procedures to be enacted if resources are found. The proponent shall offer the Santa Rosa Rancheria Tachi Yokut Tribe the opportunity to provide a Native American Monitor during ground disturbing activities during construction. Tribal participation would be dependent upon the availability and interest of the Tribe.

CUL-2: Archaeological Monitoring. Prior to any ground disturbance, a surface inspection of the Project Site shall be conducted by a qualified archeologist. The qualified archeologist shall monitor the site during ground disturbing activities. The archeologist shall provide pre-construction briefings to supervisory personnel, any excavation contractor, and any person who will perform unsupervised, ground disturbing work on the project in connection with construction. These meetings will include information on potential cultural material findings and how to act on the procedures if resources are found.

CUL-3: Stop Work in the Event of Unanticipated Discoveries. In the event that cultural resources, paleontological resources or unique geologic features are discovered during construction, operations shall stop within 100 feet of the find, and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The qualified archaeologist shall determine the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the CEQA Guidelines. Mitigation measures may include avoidance, preservation in-place,

recordation, additional archaeological testing, and data recovery, among other options. Any previously undiscovered resources found during construction within the Project area shall be recorded on appropriate Department of Parks and Recreation forms and evaluated for significance. No further ground disturbance shall occur in the immediate vicinity of the discovery until approved by the qualified archaeologist. Prior to any ground disturbance, the applicant shall enter into an agreement with the Santa Rosa Rancheria Tachi Yokut Tribe ("Tribe") regarding cultural resources and burial treatment and protection ("Plan"), which shall be in a form acceptable to the Tribe and the County. Upon discovery of cultural resources, in addition to other procedures described in this mitigation measure, the Kings County Community Development Agency, along with other relevant agency or Tribal officials, shall be contacted to begin coordination on the disposition of the find(s), and treatment of any significant cultural resource shall be undertaken pursuant to the Plan. In the event of any conflict between this mitigation measure and the Plan, the stipulations of the Plan shall control.

CUL-4: The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be Native American, the coroner will notify the California Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

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

Less than Significant Impact with Mitigation Incorporated: There are no known human remains buried in the project vicinity. If human remains are unearthed during development, there is a potential for a significant impact. As such, implementation of Mitigation Measure CUL-4 will ensure that impacts remain *less than significant with mitigation incorporated*.

VI. Energy

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

Environmental Setting

Pacific Gas and Electric (PG&E) provides natural gas and electricity services to the region. PG&E is a subsidiary of the PG&E Corporation and serves approximately 16 million people throughout a 70,000-square-mile service area in northern and central California. PG&E supplies power to its customers from a variety of renewable and nonrenewable sources. The Table 3-10 below shows the proportion of each energy resource sold to California consumers by PG&E in 2017 as compared to the statewide average.

Fuel Type		PG&E Power Mix	California Power Mix
Coal		0%	4%
Large Hydroelectric		18%	15%
Natural Gas		20%	34%
Nuclear		27%	9%
Other (Oil/Petroleum Coke/Waste Heat)		0%	<1%
Unspecified Sources of Power[1]		2%	9%
Eligible Renewables	Biomass	4%	2%
	Geothermal	5%	4%
	Small Hydro	3%	3%
	Solar	13%	10%
	Wind	8%	10%
	Total Eligible Renewable	**33%**	**29%**

1. "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.

Table 3-10. PG&E and State average power resources; Source: California Energy Commission

Regulatory Setting

2035 Kings County General Plan: The Kings County General Plan Air Quality Element includes goals, objectives, and policies regarding energy efficiency and conservation:

- AQ Policy E1.1.1: Initiate and sustain ongoing efforts with local water and energy utilities and developers to establish and implement voluntary incentive-based programs to encourage the use of energy efficient designs and equipment in new and existing development projects within the County.

- AQ Policy E1.1.2: Initiate and sustain ongoing efforts with agriculture, the building industry, water and energy utilities and the SJVAPCD to promote enhanced energy conservation and sustainable building standards for new construction.
- AQ Policy E1.1.3: Work with local water and energy utilities and the building industry to develop or revise County design standards relating to solar orientation of building occupancies, water use, landscaping, reduction in impervious surfaces, parking lot shading and such other measures oriented towards reducing energy demand.
- AQ Policy E1.1.4: Actively promote the more efficient location of industries within the County which are labor intensive, utilize cogeneration or renewable sources of energy, support and enhance agricultural activities, and are consistent with other policies of the General Plan.
- AQ Policy E1.1.5: County staff will proactively work with the Cooperative Agricultural Extension office, California Energy Commission, local water and energy utilities, the agricultural industry, and other potential partners to seek funding sources and implement programs which reduce water and energy use, reduce air emissions and reduce the creation of greenhouse gases.

Discussion

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: Energy use associated with construction and operation of the beef harvesting plant were estimated using CalEEMod (Appendix A), EMFAC data, and project specific information provided by the applicant. Energy calculations are provided in Appendix D and summarized in Tables 3-11 and 3-12, below.

Off-Road Equipment Fuel (Diesel)		On-Road Vehicle Fuel				Total MBTU
		Diesel		Gasoline		
Gallons	MMBTU	Gallons	MMBTU	Gallons	MMBTU	
34598	4809	4985	693	5741	666	6168
					Total Construction Energy Use	6168
					Average Annual Construction Energy Use	4112

Table 3-11. Construction Related Energy Use. Source: CalEEMod & EMFAC (See Appendix D)

Mobile Fuel Use		
Fuel	**Gal/Year**	**MMBTU**
Gasoline	13194	1523
Diesel	7111	977
Electricity Use		
kWh/Year		**MMBTU**
652778		2227
Natural Gas Use		
kBTU/Year		**MMBTU**
35300		35
Total Operational Energy Use		**MMBTU**
		4827

Table 3-12. Operations Related Energy Use. Source: CalEEMod & EMFAC (See Appendix D)

During project construction there would be an increase in energy consumption related to worker trips and operation of construction equipment (Table 3-11). This energy use would be limited to the greatest extent possible through compliance with local, state, and federal regulations.

As shown in Table 3-12, annual energy use associated with project operations would total approximately 4,872 MMBTUs per year under 2024 operational conditions. Annual energy use is expected to decrease over time as a result of improvements in vehicle fuel efficiency standards. The proposed Project will be subject to energy conservation requirements in the California Energy Code (24 CCR Part 6, California's Energy Efficiency Standards for Residential and Nonresidential Buildings) and the California Green Building Standards Code (CALGreen) (24 CCR Part 11). Adherence to Title 24 requirements would ensure that the project would not result in wasteful or inefficient use of non-renewable resources due to building operation or vehicle trips. Therefore, potential impacts would *be less than significant.*

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

No Impact: The proposed project will not conflict with or obstruct any state or local plans for renewable energy or energy efficiency. The project will be designed to meet Title 24 and CALGreen requirements. Compliance with these standards will be enforced by the Kings County Building Division. There is *no impact.*

Mitigation Measures for Energy Resources

None Required

VII. GEOLOGY AND SOILS

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 waste water?	☐	☐	☐	☑
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☑	☐	☐

Environmental Setting

The proposed project is located on one soil type. The properties of this soil is described briefly below:

- **Lemoore sandy loam, partially drained.** The Lemoore series consists of deep, somewhat poorly drained soils that formed in alluvium from igneous and sedimentary rocks. These soils exhibit slow runoff, moderate permeability and are somewhat poorly drained.

Regulatory Setting

California Building Code: The California Building Code contains general building design and construction requirements relating to fire and life safety, structural safety, and access compliance. CBC provisions provide minimum standards to safeguard life or limb, health, property and public welfare by regulating

and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures and certain equipment.

2035 Kings County General Plan: The Health and Safety Element of the 2035 Kings County General Plan includes the following objectives pertaining to soils and geology:

- Health and Safety Objective A1.3 Limit growth and development in hazard areas to minimize new areas susceptible to higher risk of natural hazards.
- Health and Safety Objective A1.4 Maintain County building and construction standards and regulations to remain current with State and Federal requirements that serve to protect residents from natural hazards.
- Health and Safety Objective A1.5 Increase communication regarding hazard mitigation among communities in the County, and improve organizational capabilities to address health and safety issues in mitigation and response.
- Health and Safety Objective A2.1 Regulate new construction to achieve acceptable levels of risk posed by geologic hazards.

Definitions

Paleontological Resources. For the purposes of this section, "paleontological resources" refers to the fossilized plant and animal remains of prehistoric species. Paleontological Resources are a limited scientific and educational resource and are valued for the information they yield about the history of the earth and its ecology. Fossilized remains, such as bones, teeth, shells, and leaves, are found in geologic deposits (i.e., rock formations). Paleontological resources generally include the geologic formations and localities in which the fossils are collected.

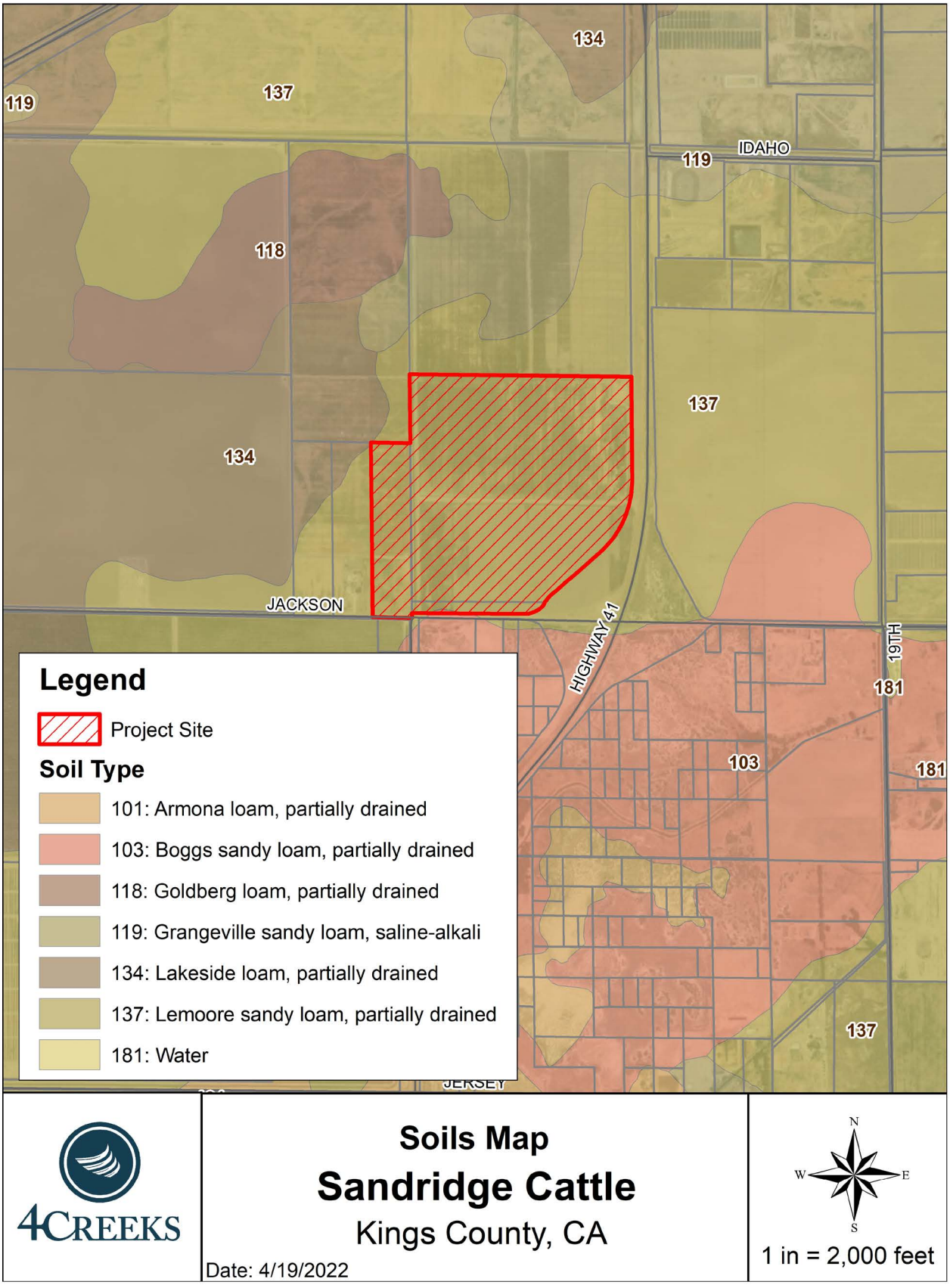

Figure 3-4. Soils Map

Discussion

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

a-i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact: According to the 2035 Kings County General Plan, no active faults systems are located within Kings County. The potential for strong seismic ground shaking on the Project Site is not a significant environmental concern due to the infrequent seismic activity of the area and distance to the faults. The project is not located within the Alquist-Priolo Earthquake Fault Zone and the nearest fault is the Nunez fault, which lies in the Alcalde Hills 7.5-minute quadrangle, located northwest of Coalinga in Fresno County, approximately 46.1 miles west of the Project Site. Furthermore, according to the 2035 Kings County General Plan, there are no known major fault systems within Kings County. The greatest potential for geologic disaster in Kings County is posed by the San Andres Fault, which is located approximately four miles west of the Kings County boundary line with Monterey County. The distance from the nearest active faults precludes the possibility of fault rupture on the Project Site. Therefore, *there would be no impact*.

a-ii) Strong seismic ground shaking?

Less than Significant Impact: The proposed project would not expose people to seismic ground shaking beyond the conditions that currently exist throughout the project area. The Project Site is located within an area designated as Zone V_1 or Valley Zone 1, which is identified as the area of least expected seismic shaking by the Kings County Seismic Zone Description in the 2035 Kings County General Plan. The Project Site's percent probability of exceeding peak ground acceleration (% g) in the next 50 years is between 20-30%, which is the lowest within the county. Although the project area could potentially experience ground shaking, the magnitude of the hazard would not be severe as indicated by the 2035 Kings County General Plan. The project would be constructed to the standards of the most recent seismic Uniform Building and Safety Code (UBSC) and a *less than significant impact would occur.*

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

Less than Significant Impact: Liquefaction is a phenomenon whereby unconsolidated and/or near-saturated soils lose cohesion and are converted to a fluid state as a result of severe vibratory motion. The relatively rapid loss of soil shear strength during strong earthquake shaking results in temporary, fluid-like behavior of the soil. According to the 2035 Kings County General Plan, the proposed project is located in an area suitable for liquefaction. However, the General Plan classifies the Project Site as Seismic Zone V1, meaning that the distance to fault systems is sufficiently great that the effect should be minimal. Therefore, impacts are *less than significant.*

a-iv) Landslides?

No Impact: The Project Site is generally flat. There are no hill slopes in the area and no potential for landslides. No geologic landforms exist on or near the site that would result in a landslide event. There would be *no impact.*

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

Less Than Significant Impact: Because the Project Site is generally flat, minimal grading would be required to accommodate the proposed development. Although construction activities may result in a loss of topsoil, any soil erosion impacts would be temporary and subject to best management practices required by SWPPP. These best management practices are developed to prevent significant impacts related to erosion from construction. Because impacts related to erosion would be temporary and limited to construction, and required best management practices would prevent significant impacts related to erosion, the impact will remain *less than significant.*

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: While the soils associated with the Project Site are considered to be stable and have a low capacity for landslides, lateral spreading, subsidence, liquefaction or collapse, the 2035 Kings County General Plan identifies the project site as within an area suitable for liquefaction. However, the General Plan classifies the Project Site as Seismic Zone V1, meaning that the distance to fault systems is sufficiently great that the effect should be minimal. Because the project area is considered to be stable, and this project would not require extensive grading or other activities that would increase the risk of landslides, lateral spreading, subsidence, liquefaction or collapse, the impact is considered *less than significant.*

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect substantial risks to life or property?

No Impact: Expansive soils contain high levels of clay which allow them to absorb water. These soils expand as water is absorbed and shrink as water evaporates. None of the soils associated with the Project site contain high levels of clay, and the site is not located within an area of expansive soils as defined by the 2035 Kings County General Plan. There is *no impact.*

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: The proposed project would include a septic system to manage human waste from onsite employee facilities. The soil on the site will be able to adequately support septic system use. Groundwater in the project area is found around 14 feet below the surface. There is *no impact.*

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

Less than Significant with Mitigation Incorporated: There are no known paleontological resources located within the project area. However, implementation of Mitigation Measures CUL-1, CUL-2, CUL-3 and CUL-4 will ensure that any impacts resulting from project implementation remain *less than significant with mitigation* incorporated.

Mitigation Measures for Impacts to Geology and Soils:

See Cultural Resources Section- Mitigation Measures CUL-1, CUL-2, CUL-3 and CUL-4

VIII. GREENHOUSE GAS EMISSIONS

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

Environmental Setting

Natural processes and human activities emit greenhouse gases. The presence of GHGs in the atmosphere affects the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 34ºC cooler. However, it is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

The effect of greenhouse gasses on earth's temperature is equivalent to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide, methane, nitrous oxide, ozone, chlorofluorocarbons, hydro chlorofluorocarbons, and hydro fluorocarbons, per fluorocarbons, sulfur and hexafluoride. Some gases are more effective than others. The Global Warming Potential (GWP) has been calculated for each greenhouse gas to reflect how long it remains in the atmosphere, on average, and how strongly it absorbs energy. Gases with a higher GWP absorb more energy, per pound, than gases with a lower GWP, and thus contribute more to global warming. For example, one pound of methane is equivalent to twenty-one pounds of carbon dioxide.

GHGs as defined by AB 32 include the following gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHGs as defined by AB 32 are summarized in Table 3-13. Each gas's effect on climate change depends on three main factors. The first being the quantity of these gases are in the atmosphere, followed by how long they stay in the atmosphere and finally how strongly they impact global temperatures.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Methane (CH4)	Is a flammable gas and is the main component of natural gas	12 years	21	Emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Carbon dioxide (CO2)	An odorless, colorless, natural greenhouse gas.	30-95 years	1	Enters the atmosphere through burning fossil fuels (coal, natural gas and oil), solid waste, trees and wood products, and also as a result of certain chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
Chloro-fluorocarbons	Gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are non-toxic nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).	55-140 years	3,800 to 8,100	Were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone.
Hydro-fluorocarbons	A man-made greenhouse gas. It was developed to replace ozone-depleting gases found in a variety of appliances. Composed of a group of greenhouse gases containing carbon, chlorine an at least one hydrogen atom.	14 years	140 to 11,700	Powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for stratospheric ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases.
Nitrous oxide (N2O)	Commonly known as laughing gas, is a chemical compound with the formula N2O. It is an oxide of nitrogen. At room temperature, it is a colorless, non-flammable gas, with a slightly sweet odor and taste. It is used in surgery and dentistry for its anesthetic and analgesic effects.	120 years	310	Emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
Pre-fluorocarbons	Has a stable molecular structure and only breaks down by ultraviolet rays about 60 kilometers above Earth's surface.	50,000 years	6,500 to 9,200	Two main sources of pre-fluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	An inorganic, odorless, colorless, and nontoxic nonflammable gas.	3,200 years	23,900	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing and as a tracer gas.

Table 3-13. Greenhouse Gasses; Source: EPA, Intergovernmental Panel on Climate Change

In regards to the quantity of these gases that are in the atmosphere, we first must establish the amount of particular gas in the air, known as Concentration, or abundance, which are measured in parts per million, parts per billion and even parts per trillion**.** To put these measurement in more relatable terms, one part per million is equivalent to one drop of water diluted into about 13 gallons of water, roughly a full tank of gas in a compact car. Therefore, it can be assumed larger emission of greenhouse gases lead to a higher concentration in the atmosphere.

Each of the designated gases described above can reside in the atmosphere for different amounts of time, ranging from a few years to thousands of years. All of these gases remain in the atmosphere long enough

to become well mixed, meaning that the amount that is measured in the atmosphere is roughly the same all over the world regardless of the source of the emission.

Regulatory Setting

AB 32: AB 32 set the 2020 greenhouse gas emissions reduction goal into law. It directed the California Air Resources Board to begin developing discrete early actions to reduce greenhouse gases while also preparing a scoping plan to identify how best to reach the 2020 limit. The reduction measures to meet the 2020 target were to be adopted by the start of 2011.

SB 1078, SB 107 and Executive Order S-14-08: SB 1078, SB 107, and Executive Order S-14-08 require California to generate 20% of its electricity from renewable energy by 2017. SB 107 then changed the 2017 deadline to 2010. Executive Order S-14-08 required that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020.

Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA and District Policy - Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency (SJVAPCD 2009): In 2015, the SJVAPCD adopted reference documents for *Guidance for Assessing and Mitigating Air Quality Impacts*, which acknowledges the current absence of numerical thresholds and recommendations for a tiered approach to establish GHG impacts on the surrounding environment:

I. If a project complies with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, then the project would be determined to have a less than significant individual and cumulative impact for GHG emissions;
II. If a project does not comply with an approved GHG emission reduction plan or mitigation program, then it would be required to implement Best Performance Standards (BPS); and
III. If a project is not implementing BPS, then it should demonstrate that its GHG emissions would be reduced or mitigated by at least 29 percent compared to Business as Usual (BAU).

Discussion

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: A CalEEMod report was prepared to quantify greenhouse gas emissions from construction and operation of the proposed project and to identify mitigation measures as needed. The full CalEEMod report is provided in Appendix A.

Construction: Greenhouse gasses would be generated during construction from activities including site preparation, grading, building construction, application of architectural coatings, and paving. The CalEEMod Emissions report predicts that this project will create a maximum of 364.6 MT of CO2e emissions per year during construction. Because the SJVAPCD does not have numeric thresholds for assessing the significance of construction-related GHG emissions, predicted emissions from project construction were compared to SCAQMD thresholds for construction related GHG emissions. The SCAQMD currently has a threshold of 10,000 metric tons of CO2e per year for construction emissions amortized over a 30-year project lifetime. Because

project construction would generate far less GHG emissions than this threshold, impacts related to GHG emissions during project construction would be less than significant.

Operation: Operation of the beef harvesting plant would result in long-term greenhouse gas emissions related to manure decomposition, enteric fermentation, mobile, energy, and area sources. The SJVAPCD does not provide numeric thresholds to assess the significance of greenhouse gas emissions. Instead, the SJVAPCD "Guidance for Valley Land Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA" states that projects which achieve a 29% GHG emission reduction compared to Business as Usual (BAU) would be determined to have a less than significant individual and cumulative impact for GHG. "Business as usual" (BAU) conditions are defined based on the year 2005 building energy efficiency, average vehicle emissions, and electricity energy conditions. The BAU conditions assume no improvements in energy efficiency, fuel efficiency, or renewable energy generation beyond that existing today.

The project's operational GHG emissions and 2005 BAU GHG emissions were estimated using the methods described in Sections 4 and 5 of the Air Quality/Greenhouse Gas Assessment (Appendix A) and are summarized in Table 3-14, below. 2005 BAU estimates did not include implementation of proposed mitigation measures and assumed additional employees would be needed to operate the beef harvesting plant due to limitations in available technology.

Emissions Source	2005 BAU	2023 Operations (With Mitigation)
	CO2e (MT/Year)	
Beef Harvesting Plant	1078.3	389.5
% Reduction from BAU	N/A	**63.9%**

Table 3-14. Evaluation of Project-related Operational GHG Emissions as compared to 2005 BAU. Source: CalEEMod Emissions Estimates (Attachments A and B)

As shown in Table 3-14, implementation of the proposed Project would result in 688.8 MT CO2e fewer GHG emissions (or a reduction of approximately 64%) as compared to 2005 BAU conditions. Therefore, the Project would not generate a cumulatively considerable GHG impact nor would it conflict with any applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. The impact is *less than significant.*

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

No Impact: The SJVAPCD is responsible for regulating GHG emissions within the project area to meet statewide GHG emission reduction objectives. The regulations and standards enforced by the SJVAPCD are designed to ensure that the region meets the goals of AB 32, SB 1078, SB 107, and Executive Order S-14-08. The project is not in conflict with any local or statewide plans, policies or regulations adopted to reduce GHG emissions. There is *no impact.*

IX. HAZARDS AND HAZARDOUS MATERIALS

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

Environmental Setting

The proposed Project Site is located approximately 10.7 miles from the nearest public airport (Hanford Municipal Airport), 7.5 miles from the nearest private airfield (Lemoore Naval Air Station), and 2.3 miles from the nearest school (Lemoore University Elementary Charter School). The Department of Toxic Substances Control's (DTSC's) Envirostor was used to identify any sites known to be associated with releases of hazardous materials or wastes within the project area. This research confirmed that the project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

Regulatory Setting

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S. Code [U.S.C.] §9601 et seq.). The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or the Superfund Act) authorizes the President to respond to releases or threatened releases of hazardous substances into the environment.

Occupational Safety and Health Administration. The Occupational Safety and Health Administration (OSHA) sets and enforces Occupational Safety and Health Standards to assure safe working conditions. OSHA provides training, outreach, education, and compliance assistance to promote safe workplaces. The Project would be subject to OSHA requirements during construction, operation, and maintenance.

Toxic Substances Control Act of 1976 (15 U.S.C. §2601 et seq.). The Toxic Substance Control Act was enacted by Congress in 1976 and authorizes the EPA to regulate any chemical substances determined to cause an unreasonable risk to public health or the environment.

Hazardous Waste Control Law, Title 26. The Hazardous Waste Control Law creates hazardous waste management program requirements. The law is implemented by regulations contained in Title 26 of the California Code of Regulations (CCR), which contains requirements for the following aspects of hazardous waste management:

- Identification and classification;
- Generation and transportation;
- Design and permitting of recycling, treatment, storage, and disposal facilities;
- Treatment standards;
- Operation of facilities and staff training; and
- Closure of facilities and liability requirements.

California Code of Regulations, Title 22, Chapter 11. Title 22 of the California Code of Regulations contains regulations for the identification and classification of hazardous wastes. The CCR defines a waste as hazardous if it has any of the following characteristics: ignitability, corrosively, reactivity, and/or toxicity.

California Emergency Services Act. The California Emergency Services Act created a multi-agency emergency response plan for the state of California. The Act coordinates various agencies, including CalEPA, Caltrans, the California Highway Patrol, regional water quality control boards, air quality management districts, and county disaster response offices.

Hazardous Materials Release Response Plans and Inventory Law of 1985. Pursuant to the Hazardous Materials Release Response Plans and Inventory Law of 1985, local agencies are required to develop "area plans" for response to releases of hazardous materials and wastes. Kings County maintains a Hazardous Material Incident Response Plan to coordinate emergency response agencies for incidents and requires the submittal of business plans by persons who handle hazardous materials.

2035 Kings County General Plan: The Health and Safety Element of the 2035 Kings County General Plan includes the following objectives pertaining to hazards and hazardous materials:

- HS Objective B1.5 Ensure adequate protection of County residents from new generations of toxic or hazardous waste substances.
    - HS Policy B1.5.1: Evaluate development applications to determine the potential for hazardous waste generation and be required to provide sufficient financial assurance that is available to the County to cover waste cleanup and/or site restoration in instances where the site has been abandoned or the business operator is unable to remove hazardous materials from the site.

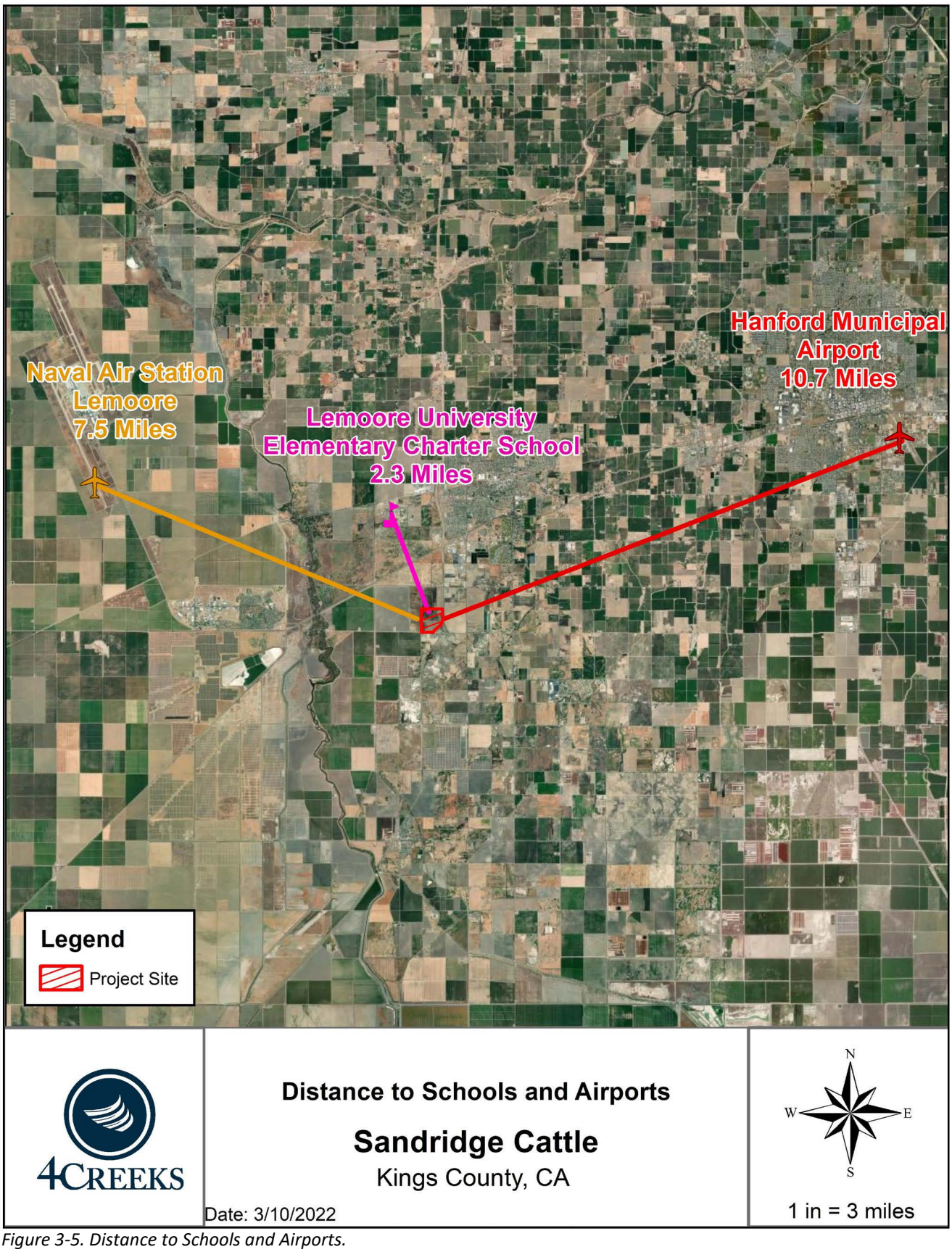

Figure 3-5. Distance to Schools and Airports.

Discussion

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

Less than Significant Impact with Mitigation Incorporated: Project construction activities may involve the use and transport of hazardous materials. During construction, the contractor will use fuel trucks to refuel onsite equipment and may use paints and solvents to a limited degree. Construction and operations related activities will comply with the California fire code and local building codes.

Operation of the proposed beef harvesting plant will require the routine use and storage of hazardous materials, including natural gas, cleaning and sanitizing reagents, anhydrous ammonia, and hydraulic lubricating oils, in quantities large enough that improper transport, use, or disposal could create a significant hazard to the public or the environment. However, the project applicant will be required to prepare, implement, and maintain a Hazardous Materials Business Plan, as described in Mitigation Measure HAZ-1. These plans are reviewed and approved by the Kings County Department of Public Health. Compliance with the Hazardous Materials Business Plan will ensure the project will have a *less than significant impact with mitigation incorporated.*

Mitigation Measure:

HAZ-1: In order to protect the public from potential release of hazardous materials, the project applicant shall prepare and implement a new Hazardous Materials Business Plan (HMBP) in accordance with the requirements of the Kings County Public Health Department's Environmental Health Services Division and the Hazardous Materials Release Response Plan and Inventory Act of 1985. Under this state law, the applicant is required to prepare an HMBP to be submitted to the Kings County Public Health Department, Environmental Health Services Division, which is the Certified Unified Program Agency (CUPA) for Kings County. The HMBP shall include a hazardous material inventory, emergency response procedures, training program information, and basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of at the proposed project site, and procedures for handling and disposing of unanticipated hazardous materials encountered during construction. The HMBP shall include an inventory of the hazardous waste generated on-site, and would specify procedures for proper disposal. As required, hazardous waste would be transported by a licensed hauler and disposed of at a licensed facility. According to the HMBP reporting requirements, workers must be trained to respond to releases of hazardous materials in accordance with state and federal laws and regulations governing hazardous materials and hazardous waste (e.g., HAZWOPER training required by OSHA). Any accidental release of small quantities of hazardous materials shall be promptly contained and abated in accordance with applicable regulatory requirements and reported to the Environmental Health Services Division. As the CUPA for Kings County, the Environmental Health Services Division of the County Public Health Department is responsible for implementation and enforcement of HMBPs. Implementation of the HMBP for the project would ensure that minor spills or releases of hazardous materials would not pose a significant risk to the public or the environment.

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?

Less than Significant Impact with Mitigation Incorporated: As discussed above, the Project will be required to implement Mitigation Measure HAZ-1 and prepare and maintain a Hazardous Materials Business Plan. Impacts would be *less than significant with mitigation incorporated.*

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?

No Impact: The project is not located within ¼ mile of an existing or proposed school, and there is no reasonably foreseeable condition or incident involving the emission, handling, or disposal of hazardous materials, substances, or waste that would affect areas within ¼ miles of existing or proposed school sites. There is *no impact.*

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 Site is not listed as a hazardous materials site pursuant to Government Code Section 65962.5 and is not included on a list compiled by the Department of Toxic Substances Control. There would be *no impact*.

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 proposed project is located approximately 10.7 miles away from the nearest public airport (Hanford Municipal Airport) and 7.5 miles from Lemoore Naval Air Station. The site is not located in an airport land use plan and there is *no impact.*

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

No Impact: The proposed project's access routes would meet all emergency access requirements of Kings County. Construction of the proposed project would not create an obstruction to surrounding roadways or other access routes used by emergency response units. The proposed project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. There is *no impact.*

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

No Impact: The California Department of Forestry and Fire Protection (CAL FIRE) is responsible for identifying the governmental agencies responsible for preventing and suppressing fires in all areas of the State. Within the County, this responsibility is shared between the cities, County, State, and Naval Air Base. Generally, fire season in Kings County extends from early spring to late fall. Determination

of wildland fire hazards is based on three major factors: fuel loading, weather conditions, and topography.

In most of Kings County, CAL FIRE ranks fuel loading as low fuel hazards, where fuels are mainly crops and grasses. Vacant parcels where dry weeds are permitted to accumulate are a fire hazard, but grain crops, such as oats and barley, are also at risk because they are harvested in a dry state during the peak fire season. According to Figure HS-9 of the 2035 Kings County General Plan Health and Safety Element, the Project Site is within 2,400 meters of a high threat from wildfires. This designation applies to a significant portion of Kings County. Project construction would not require blasting or any other technique that would increase wild land fires, and development of the site would result in a reduction of brush at the Project Site and would therefore reduce the threat of wildfire in the area. For these reasons, the proposed project would have *no impact* to wildland fires.

X. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements 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 result in substantial erosion or siltation on- or off-site?				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☑	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☑	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or?	☐	☑	☐	☐
iv) impede or redirect flood flows?	☐	☐	☑	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☑
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☑

Environmental Setting

Groundwater: The proposed Project Site is located in the Tulare Lake Hydrologic Region, which covers 10.9 million acres south of the San Joaquin River. The Tulare Lake Hydrologic Region is composed of 12 groundwater basins. The proposed Project Site lies within the San Joaquin Valley Groundwater Basin. The San Joaquin Valley Groundwater Basin is divided into seven sub-basins. The proposed Project is located within the Tulare Lake Sub-basin.

Surface Waters: The proposed Project Site is within the Tulare-Buena Vista Lakes Watershed which covers portions of Kern and Kings County. The most prominent rivers and streams within the Watershed are the Kings River and the Kaweah River. The alluvial fans of the Kings River and Kaweah River dominate the landscape within the Kings County Water District. Other surface waters include the Saint Johns River and Cross Creek.

Regulatory Setting

Clean Water Act: The Clean Water Act (CWA) is enforced by the U.S. EPA and was developed in 1972 to regulate discharges of pollutants into the waters of the United States. The Act made it unlawful to discharge any pollutant from a point source into navigable waters unless a National Pollution Discharge Elimination System (NPDES) Permit is obtained.

Central Valley RWQCB: The proposed Project Site is within the jurisdiction of the Central Valley Regional Water Quality Control Board (RWQCB). The Central Valley RWQCB requires a National Pollution Discharge Elimination System (NPDES) Permit and Stormwater Pollution Prevention Plan (SWPPP) for projects disturbing more than one acre of total land area. Because the project is greater than one acre, a NPDES Permit and SWPPP will be required.

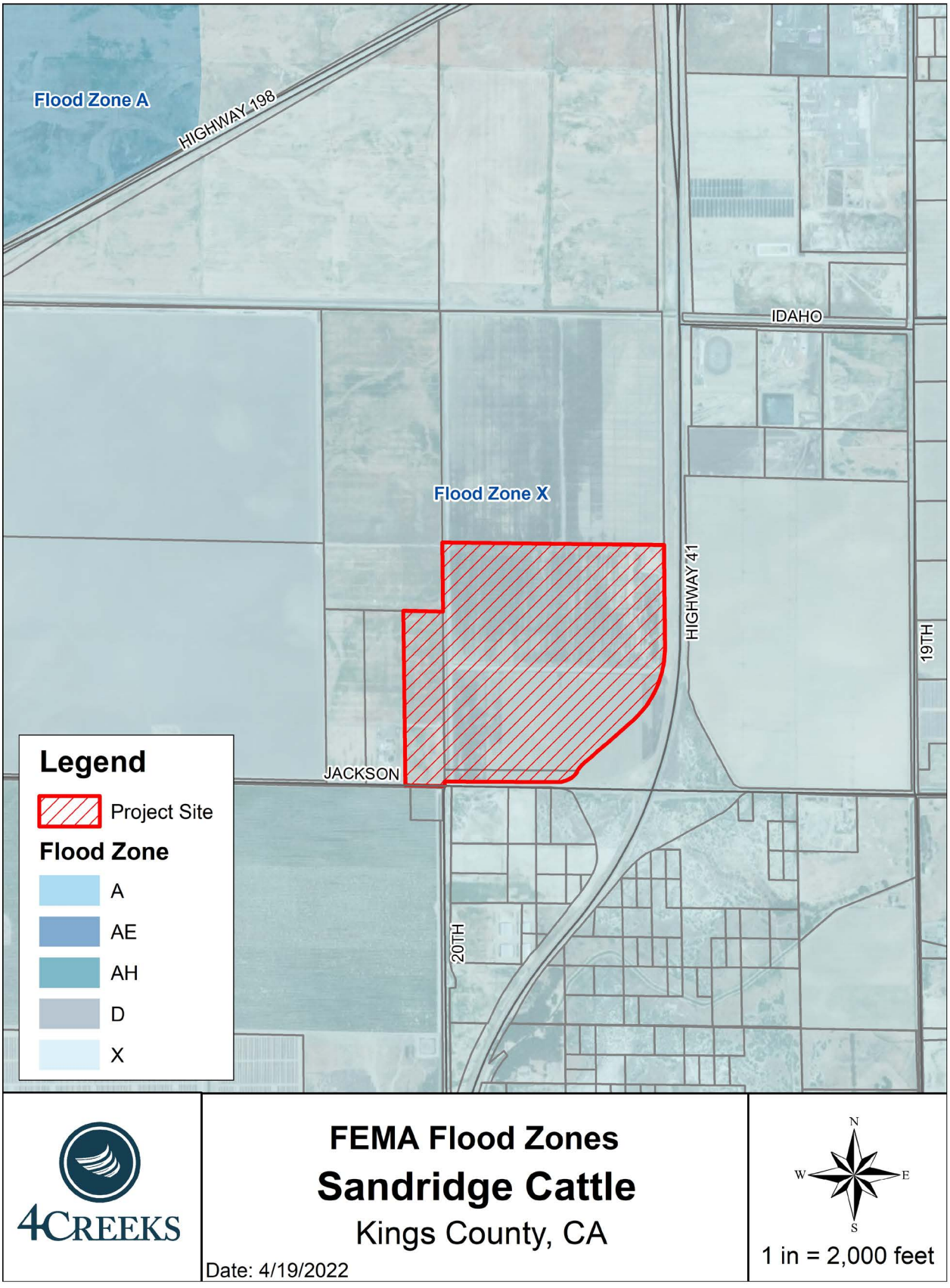

Figure 3-6. Flood Zone Map

Discussion

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 with Mitigation Incorporated: Because implementation of the proposed project will involve ground disturbance of more than one-acre, significant impacts related to water quality standards or waste discharge requirements may occur. However, a SWPPP will be required for the project and will include erosion and sediment control measures to reduce runoff during construction. Implementation of BMPs through stormwater quality protection measures would ensure there is no violation of water quality standards or waste discharge requirement during construction.

Wastewater generated during project operations will be required to comply with State and regional programs designed to prevent degradation of surface or ground water quality (Mitigation Measure HYD-2). A Report of Waste Discharge was submitted to the Regional Water Board in April 2022 to ensure that waste generated at the facility is managed in compliance with Waste Discharge Requirements of the California Regional Water Quality Control Board.

Beef processing wastewater, which contains high concentrations of salt, nitrogen, and organic matter, will be retained in an onsite retention pond that will be developed in accordance with the Tier 1 (double lined) pond requirements as specified in the State's Antidegradation policy. Project will require compliance with the Central Valley-Wide Salt and Nitrate Control Programs. Notices of Intent will be submitted for these programs by the facility's monitoring and compliance consultant. The double lined pond would also be used to contain onsite stormwater in compliance with the regulations contained in the Industrial Storm Water General Permit Order 2014-0057-DWQ.

All domestic wastewater will be diverted to an onsite septic system. The location of this system has been identified and will be developed in accordance with the State Water Board's Onsite Wastewater Treatment Systems Policy.

Implementation of Mitigation Measure HYD-1 and HYD-2 will ensure that this project will not violate any water quality standards or wastewater discharge requirements. Therefore, the impact is *less than significant with mitigation incorporated*.

Mitigation Measures:

HYD-1: Stormwater Quality Protection: Prior to project construction, the applicant shall be required to file a "Notice of Intent" (NOI) with the SWRCB to comply with the General Permit and prepare a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall be prepared by a licensed engineer and shall detail the treatment measures and best management practices (BMPs) to control pollutants that shall be implemented and complied with during project construction. Example SWPPP measures may include the following:

- Preserve existing vegetation where required and when feasible
- Reseeding vegetation, where appropriate
- Control erosion in concentrated flow paths by applying erosion control blankets, check dams, erosion control seeding, or alternative methods

- Maintain sufficient quantities of temporary sediment control materials on-site throughout the duration of the project

HYD-2: Report of Waste Discharge. Prior to construction grading the applicant shall be required to file a Report of Waste Discharge (RWD) with the Central Valley Regional Water Quality Control Board (CVRWQCB) pursuant to California Water Code (CWC) Section 13260. Waste water generated from the facility will be pretreated to remove harmful constituents so that the water can be used for land application at agronomic rates. The RWD shall include a technical report addressing waste water treatment operations, waste water volume, waste water characteristics, land application areas and waste water loading rates to ensure proper application for crop utilization. Pursuant to the CVRWQCB permitting process, the applicant shall file a Notice of Intent (NOI) with the Kings Water Alliance for the Regional Central Valley Salinity Alternatives for Long-term Sustainability (CV-SALTS) Nitrate Control Program.

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 proposed project would not have a significant impact on groundwater resources. During construction of the proposed beef harvesting plant, water use is estimated to be approximately 0.12 acre-feet/acre/month. This water will be used primarily for dust control.

Operation of the beef harvesting plant will require approximately 50,000 gallons of water per day. For the 20-acre site, this is equal to approximately 0.007672 acre-feet per acre per day, or an average of 0.16 acre-feet per acre per month based on an assumed 250 operating days per year.

The Project Site is located in an area of significant agricultural activity. Therefore, it is relevant to compare project-related water use to typical agricultural water use. Because the 2020 Kings County Crop Report identifies Cotton, Pima -Lint as having one of the largest number of harvested acres within the County, the amount of water used for cotton production was used to evaluate the significance of the project's water use. The 2015 California Agricultural Production and Irrigated Water Use Report states that cotton production requires an average of 2.9 acre-feet of applied water/acre/year, or 0.24 acre-feet/acre/month. Because construction-related water use is anticipated to be approximately 0.12 acre-feet/acre/month, and operational water use is anticipated to be approximately 0.16 acre feet/month, both construction and operation of the proposed beef harvesting plant would require less water than would be required by typical crop cultivation.

Because water use associated with operation of the beef harvesting plant would not exceed that of adjacent agricultural uses, it is inferred the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. The proposed project does not meet the definition of a "project" as defined by Water Code Water Code § 10912 and would not be subject to a Water Supply Assessment pursuant to SB 610 or SB 221. The impact is *less than significant.*

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?

Less than Significant Impact: The proposed project will not impact existing drainage patterns or alter the course of a stream or river. The site of the proposed beef harvesting plant is generally flat and no significant grading or leveling will be required. Added impervious surfaces will be limited to the 72,000-sf building footprint, drive aisles and parking/loading areas and all stormwater will be contained on-site. Therefore, the project will have a *less than significant impact* on erosion or siltation on or off site.

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less than Significant Impact: The proposed project will not alter existing drainage patterns or increase surface runoff in a manner that could result in flooding on or off site. The project area is generally flat and no significant grading or leveling will be required. Added impervious surfaces will be limited to the 72,000-sf building footprint, drive aisles and parking/loading areas and all stormwater will be contained on-site. Therefore, the project will have a *less than significant impact* on 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?

Less than Significant Impact with Mitigation Incorporated: The proposed project will not alter existing drainage patterns or impact existing stormwater drainage systems in a manner that would 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. Added impervious surfaces will be limited to the 72,000-sf building footprint, drive aisles and parking/loading areas and all stormwater will be contained on-site. Construction activities could create a potential for surface water to carry sediment into the storm water system and downstream waterways however implementation of Mitigation Measure HYD-1 will reduce impacts related to stormwater and polluted runoff to less than significant levels. Therefore, the impact is *less than significant with mitigation incorporated.*

iv. impede or redirect flood flows?

Less than Significant Impact: The project will not substantially alter the existing drainage pattern of the site, nor alter the course of a stream or river. The project site contains a relatively small area of impervious concrete to be installed above the adopted FEMA Base Flood Elevation to prevent flooding of permanent site fixtures. The remaining area of the small site shall be below the Base Flood Elevation, sloped and graded to minimize any potential flood impacts. Storm water accumulated on the proposed site shall be retained on the parcel, as occurs currently. Therefore, the project will have a *less than significant impact* on flood flows.

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

No Impact: The proposed project is located inland and not near an ocean or large body of water, therefore, would not be affected by a tsunami. The proposed project is located in a relatively flat area

and would not be impacted by inundation related to mudflow Therefore, the proposed project would have *no impacts* related to seiche, tsunami, or mudflow.

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

No Impact: The proposed project would comply with local, State, and federal regulations regarding water quality and groundwater management. It would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. There is *no impact.*

XI. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☑
b) 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?	☐	☐	☐	☑

Environmental Setting

The proposed project is located in an unincorporated area of Kings County, directly west of the City of Lemoore and 4.7 miles north of Stratford. Current land use on the surrounding properties includes cultivated agriculture. There is one rural residence approximately 180 feet from the Project property line (approximately 600 feet from the area of closest disturbance). The land to the north, west, and east are designated by Kings County as General Agriculture (General Agriculture – 20 Acre) under the General Plan and is zoned as AG-20 General Agricultural-20 District under the Kings County Development Code. Property to the east is within the Lemoore City Limits and is designated as Light Industrial under the City's General Plan and Zoning Ordinance (Figure 3-7).

Regulatory Setting

2035 Kings County General Plan: As shown in Figure LU-11, the Kings County Land Use Map shows that the proposed Project Site and the land to the north, west, and east are designated by Kings County as General Agriculture (General Agriculture – 20 Acre) under the General Plan. Property to the east is within the Lemoore City Limits and is designated as Light Industrial under the City's General Plan. Page LU-13, Section III.A.1. of the "Land Use Element" of the *2035 Kings County General Plan* states that agricultural land use designations account for a vast majority of the County's land use. Included within this land use type are four agricultural type land use designations, Limited Agriculture, General Agriculture 20 Acre Minimum, General Agriculture 40 Acre Minimum, and Exclusive Agriculture. The major differences between the four Agriculture designations relate to minimum parcel size, animal keeping, and agricultural service businesses. These designations preserve land best suited for agriculture, protect land from premature conversion, prevents encroachment of incompatible uses, and establish intensity of agricultural uses in a manner that remains compatible with other uses within the County. The development of agricultural service and produce processing facilities within the Agricultural areas of the County shall develop to County standards.

Page LU-13, Section III.A.1. of the "Land Use Element" of the *2035 Kings County General Plan* states that the AG-20 designation is applied to rural areas of the county north of Kansas Avenue, excluding the Urban Fringe areas of Hanford and Lemoore, Communities of Armona and Home Garden, the Naval Air Station Lemoore, the Santa Rosa Rancheria Tribal Trust Land, and other small Rural Interface pockets of urban uses. Generally characterized by extensive and intensive agricultural uses, farms within this designation have historically been smaller in size. These areas should remain reserved for commercial agricultural uses

because of their high quality soil, natural and manmade waterways, scenic nature with larger concentrations of orchards, vineyards, and valley oak trees.

Page LU-27, Section IV.B of the "Land Use Element" of the 2035 *Kings County General Plan* states that Agriculture Open Space is the most extensive environment category that displays the rural agricultural nature of the County. This environment category covers the vast agricultural resources of the County that accounted for $1.76 billion in 2008 gross agricultural production. The Agricultural land use designations (Limited Agriculture, General Agriculture 20 Acre, General Agriculture 40 Acre, and Exclusive Agriculture) are used to define distinct areas of agricultural intensity, and protect agricultural land from the encroachment of incompatible uses. Limited and General Agriculture designated areas provide appropriate locations for agricultural support businesses, while Exclusive Agriculture provides a safety and noise buffer around the Naval Air Station Lemoore. Other small areas designated Open Space and Public are also intermixed throughout the vast agricultural landscape. These include open space buffers near community districts, and public facilities such as school sites, utility provider sites, wastewater facilities, and County parks. The following objectives in the Land Use Element of the *2035 Kings County General Plan* are applicable to the Project Site's agricultural land use designation:

- Land Use Objective B1.1 Preserve the integrity of the County's agricultural land resources through agricultural land use designations and other long term preservation policies.
- Land Use Objective B1.2 Maintain large parcel sizes of agricultural designated land within Urban Fringe areas and around Community Districts to retain viable agricultural production until such time as land is planned and ready for conversion to other uses.
- Land Use Objective B2.1 Recognize agriculture as the highest and best use of agricultural designated land, and preserve the right of farmers and agricultural operations to continue customary and usual agricultural practices, and operate in the most efficient manner possible.
- Land Use Objective B2.2 Minimize and reduce the potential for conflicts between agriculture and non-agricultural urban uses.
- Land Use Objective B2.3 Increase diversified business opportunities within agricultural areas when they are compatible with agricultural operations.
- Land Use Objective B3.1 Direct agricultural support services to General Agriculture land use designated areas, while ensuring that services are not harmful to the long term agricultural use of the land or potential future urban growth if within the Blueprint Urban Growth Boundary.

Page RC-42 of the "Resource Conservation Element" of the 2035 *Kings County General Plan* identifies the following objectives and policies related to resource conservation planning areas:

- RC Objective A2.1: Maintain the existing Kings River water conveyance system as a designated floodway, and encourage the preservation of riparian habitat along the Kings River consistent with state and federally mandated flood control purposes.

    - RC Policy A2.1.1: Recognize the Kings River Conservation District's responsibility to maintain the Kings River channels and levees for flood control purposes. On land within the floodway, allow farming and other uses that are consistent with the designated floodway regulations and any requirements of the Central Valley Flood Protection Board.
    - RC Policy A2.1.2: Apply the "Natural Resource Conservation" land use designation along the Kings River, Cross Creek, and in environmentally sensitive areas having existing natural watercourses, drainage basins, sloughs, or other natural water features.

Permitted uses within designated floodway channels shall be limited to uses such as flood control channels, water pumping stations and reservoirs, irrigation ditches, water recharge basins, limited open public recreational uses such as passive riverside parks, related incidental structures, and agricultural crop production that does not include permanent structures. Any construction or development in this designation along the Kings River designated floodway channel shall be subject to the encroachment permit process required by the Central Valley Flood Protection Board.

- RC Policy A2.1.3: Apply the "Natural Resource Conservation" land use designation to all areas of the County west of State Route 33 where topography consists of 15% or greater slopes. Permitted uses on steep sloped Natural Resource Conservation land include livestock grazing, livestock and timber, vines, and horticultural specialties.
- RC Policy A2.1.4: Coordinate the review of all development proposals within or adjacent to designated floodways with relevant resource conservation district entities to ensure compliance with Central Valley Flood Protection Board requirements, and local Floodplain Administration requirements.

Kings County Development Code: The proposed Project Site and surrounding properties are zoned as AG-20, General Agricultural-20. This district is intended for intensive agricultural uses of land. This area should be reserved for commercial agricultural uses due to its high soil quality. The minimum parcel size in the AG-20 zoning district is 20 acres. Agricultural produce processing, packing, and shipping facilities, including slaughterhouses, are allowed in this zoning district with a Conditional Use Permit. The following is from the Kings County Development Code related to this project:

Article 4, Section 407: Table 4-1 prescribes the land use regulations for “Agricultural” districts. The regulations for each district are established by letter designation shown in the key, which lists slaughterhouses as a conditional use subject to Kings County Planning Commission approval of a Conditional Use Permit in the General Agricultural (AG-40) and (AG-20) Zone District.

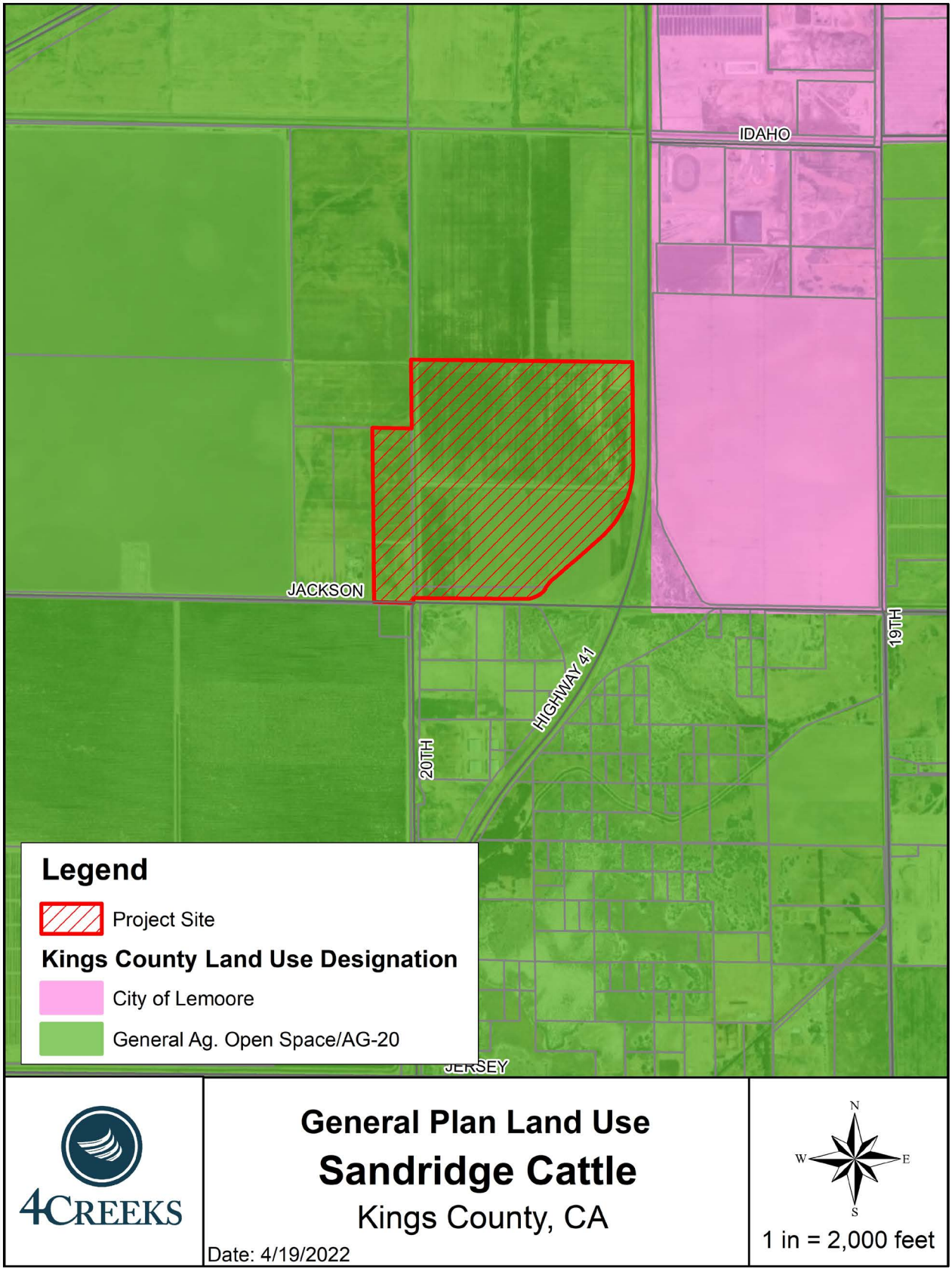

Figure 3-7. Land Use Map

Discussion

a) Would the project physically divide an established community?

No Impact: The Project Site is located on contiguous parcels and would not physically divide an established community. There is *no impact.*

b) Would the project 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?

No Impact: The proposed project is a conditionally permitted use under the current zoning and general plan land use designation, as noted in this document's Regulatory Setting section for Land Use and Planning. The project does not conflict with any land use plans for the area, and there is *no impact.*

Mitigation Measures for Impacts to Land Use and Planning

None Required

XII. MINERAL RESOURCES

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

Environmental Setting

There are no mineral resource zones in Kings County, and there is no mineral extraction occurring on or adjacent to the proposed Project Site. Historical mines within the County include an open pit gypsum mine and a mercury mine; however these mines are now closed.

Regulatory Setting

California State Surface Mining and Reclamation Act: The California State Surface Mining and Reclamation Act was adopted in 1975 to regulate surface mining to prevent adverse environmental impacts and to preserve the state's mineral resources. The Act is enforced by the California Department of Conservation's Division of Mine Reclamation. Under the California State Surface Mining and Reclamation Act of 1975, Mineral Resource Zones (MRZs) are used by the State Geologist to classify land according to its level of significance as a mineral resource. MRZs are used to help identify and protect state mineral resources from urban expansion or other irreversible land uses that might preclude mineral extraction.

The State Geologist has not yet mapped and classified mineral resources in Kings County (CDC 2013). No Mineral Resource Zone (MRZ) designations have been identified within the county. Only limited commercial mining and mineral extraction takes place in Kings County and such activities are currently limited to excavation of sand, gravel, and some hydrocarbon drilling. Historical mining of gypsum, mercury, and hydrocarbons indicated that there may be deposits of these minerals within Kings County (Kings County CDA 2010).

Discussion

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 of importance to the region on the Project Site and the Project Site is not designated under the County's General Plan as an important mineral resource recovery site (2035 Kings County General Plan). Thus, there is *no impact*.

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

No Impact: There are no known mineral resources of importance to the region on the Project Site and the Project Site is not designated under the County's General Plan as an important mineral resource recovery site (2035 Kings County General Plan). Thus, there is *no impact*.

Mitigation Measures for Impacts to Mineral Resources

None Required

XIII. NOISE

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

Environmental Setting

Noise is often described as unwanted sound. Sound is the variation in air pressure that the human ear can detect. If the pressure variations occur at least 20 times per second, they can be detected by the human ear. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz). Ambient noise is the "background" noise of an environment. Ambient noise levels on the proposed Project Site are primarily due to agricultural activities and traffic. Construction activities usually result in an increase in sound above ambient noise levels.

There is one agricultural residence within a half mile of the proposed beef harvesting plant. This residence is located in an area designated for agricultural uses. Agricultural activities on agricultural lands are protected under Kings County Right-to-Farm Ordinance.

Regulatory Setting

2035 Kings County General Plan: The Noise Element of the 2035 Kings County General Plan contains the following non-transportation noise standards for the unincorporated area of the county:

Table N-8 Non-Transportation Noise Standards
Average (Leq) / Maximum (Lmax)[1]

Receiving Land Use	Outdoor Area[2] Daytime	Outdoor Area[2] Nighttime	Interior[3] Day & Night	Notes
All Residential	55 / 75	50 / 70	35 / 55	
Transient Lodging	55 / 75	---	35 / 55	4
Hospitals & Nursing Homes	55 / 75	---	35 / 55	5, 6
Theaters & Auditoriums	---	---	30 / 50	6
Churches, Meeting Halls, Schools, Libraries, etc.	55 / 75	---	35 / 60	6
Office Buildings	60 / 75	---	45 / 65	6
Commercial Buildings	55 / 75	---	45 / 65	6
Playgrounds, Parks, etc.	65 / 75	---	---	6
Industry	60 / 80	---	50 / 70	6

Notes:
1. The Table N-8 standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards of Table N-8, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.
2. Sensitive areas are defined acoustic terminology section.
3. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
4. Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours.
5. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
6. The outdoor activity areas of these uses (if any), are not typically utilized during nighttime hours.

Discussion

a) Would the project result in the 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: Project construction is anticipated to last approximately 18 months and will involve temporary noise sources in the vicinity of the project. The average noise levels generated by construction equipment that will likely be used in the proposed project are provided in Table 3-15.

There is one agricultural residence located within ½ mile of the project site, which is the nearest sensitive receptor. The nearest area of Project disturbance is approximately 400 feet from the property line and 600 feet from the residence. The County requires that mitigation measures be implemented if noise levels exceed 75 dB in sensitive outdoor areas or if interior noise levels exceed 55 dB (Lmax). As shown in Figures 3-8 and 3-9, it was found that a residence must be at least 250 feet from construction to avoid noise levels exceeding these thresholds.

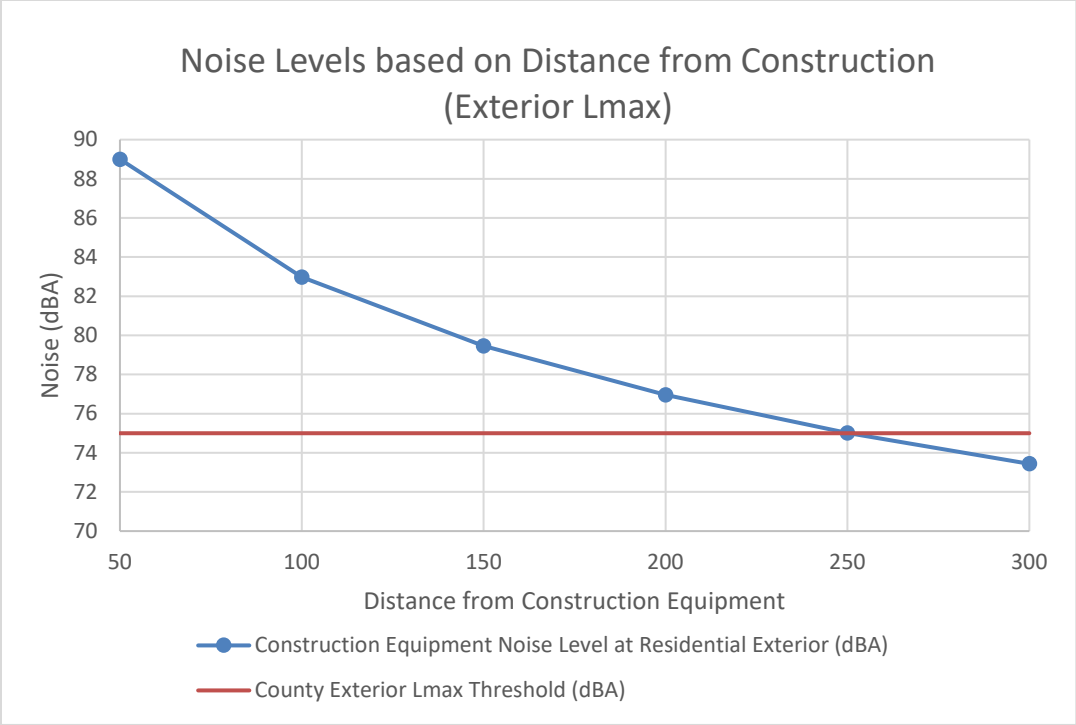

Figure 3-8. Construction-related noise levels based on distance from construction equipment (Exterior).

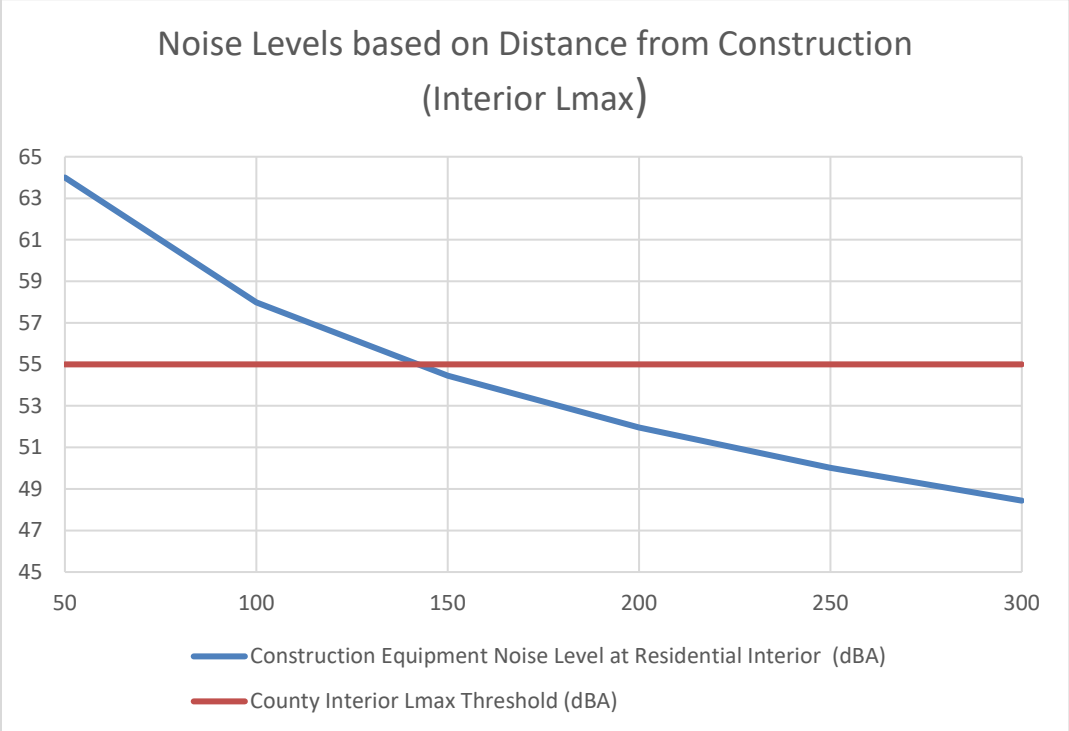

Figure 3-9. Construction-related noise levels based on distance from construction equipment (Interior). Interior noise levels assume 25 dB exterior to interior noise reduction.

There are no residences or other sensitive receptors within 250 feet of the proposed project. The nearest agricultural residence is approximately 600 feet from the nearest area of Project disturbance. Therefore, noise generated by construction activities would not exceed thresholds established by Kings County for sensitive receptors. Additionally, a condition of approval will be added to the conditional use permit stating that, "Noise-producing construction activities will be limited to daytime hours and the project will comply with all County ordinances regarding construction-related noise levels and noise-generating equipment."

Type of Equipment	Exterior Lmax at 50 feet (dBA)	Construction			Operation	
		Lmax at 400 feet[1] (dBA)	Lmax at 600 feet[2] (dBA)		Lmax at 1800 feet[3] (dBA)	Lmax at 2200 feet[4] (dBA)
		Exterior	Exterior	Interior	Exterior	Interior
Graders	85	67	63	38	N/A	N/A
Excavators	81	63	59	34	N/A	N/A
Bore/Drill Rigs	82	64	60	35	N/A	N/A
Tractors	84	66	62	37	N/A	N/A
Loaders	85	67	63	38	N/A	N/A
Backhoes	80	62	58	33	N/A	N/A
Concrete/ Industrial Saws	76	58	54	29	N/A	N/A
Generators	81	63	59	34	N/A	N/A
Plate Compactors	82	64	60	35	N/A	N/A
Pavers	89	71	67	42	N/A	N/A
Cement and Mortar Mixers	85	67	63	38	N/A	N/A
Rollers	74	56	52	27	N/A	N/A
Cranes	83	65	61	36	N/A	N/A
Forklifts	75	57	53	28	N/A	N/A
Beef Harvesting Plant Operation	85	N/A	N/A	N/A	54	52

1. Distance to nearest property line
2. Distance to nearest agricultural residence from Project Site.
3. Distance from nearest property line with sensitive receptor to beef harvesting plant
4. Distance to nearest agricultural residence from beef harvesting plant

Table 3-15. Noise levels of noise-generating construction equipment at various distances. Source: Federal Highway Administration Construction Noise Handbook (dBA at 50 feet). Noise levels beyond 50 feet were estimated using the inverse square law based on given values for dBA at 50 feet.

Operation of the proposed beef harvesting plant will generate noise levels at a maximum of 85 dBa. The nearest property line with a sensitive receptor is approximately 1800 feet from the beef harvesting plant, and the nearest residence is approximately 2200 feet from the beef harvesting plant. At these distances, exterior noise levels will be approximately 54 dBA and interior noise levels would be approximately 52 dBA. (See Table 3-15). Operation of the proposed project will not generate noise in excess of County noise standards for any residences.

Because noise generated during project construction would be intermittent, short term, and would not exceed the thresholds established by Kings County for sensitive receptors, and noise generated from operation of the proposed project would not exceed thresholds established by the County for sensitive receptors, the impact is *less than significant.*

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

No Impact: Construction and operation of the proposed beef harvesting plant would not require the use of pile drivers, jack hammers, vibratory rollers, or any other equipment that would typically generate excessive ground-borne vibration. Therefore, it is not anticipated that the project would result in significant excessive groundborne vibration or groundborne noise levels. There is *no impact.*

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

No Impact: Kings County does have an Airport Land Use Compatibility Plan; however, the Project Site is not within an area covered by an airport land use plan and is not included within any Compatibility Maps for any public airport or public use airport. Additionally, the site is not within 2 miles of a public or public use airport. There *is no impact.*

Mitigation Measures for Noise Impacts

None Required

XIV. POPULATION AND HOUSING

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 new homes and businesses) or directly (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?	☐	☐	☐	☑

Environmental Setting

The United States Census Bureau estimated the population in Kings County to be 152,940 as of July 2019. This is a slight decrease from the 2010 census, which estimated the population in Kings County to be 152,982. The population in Kings County is projected to grow by 15% between 2020 and 2030. Factors that influence population growth include job availability, housing availability, and the capacity of existing infrastructure.

Regulatory Setting

The Kings County population size is regulated by the Kings County Development Code and Land Use Element of the General Plan. These documents regulate the number of dwelling units per acre allowed on residential land uses and establish minimum and maximum lot sizes. These factors have a direct impact on the County's population size.

The Land Use Element of the 2035 Kings County General Plan highlights the importance of preserving agricultural lands from premature urbanization. Policies and goals of the 2035 General Plan include those that encourage growth in more urbanized areas of the County, as well as those that encourage preservation of agricultural uses and industries.

The Housing Element of the 2035 Kings County General Plan includes policies that address housing, employment, and growth management, as well as the adequate provision of resources, facilities, and services. The Housing Element contains a number of goals and policies intended to encourage continuous analysis and evaluation of population trends and housing needs to allow for the development of sites and facilities that sustain population growth in the county; encourage development in existing communities; and acknowledge the governmental, environmental, infrastructure, and land use constraints

Discussion

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

No Impact: The construction and operation of the proposed beef harvesting plant would not result in any substantial unplanned population growth or population displacement in Kings County. The Project does not propose any onsite residences leading to direct population growth. The beef harvesting plant is expected to employ 60 people. As of August 2020, the U.S. Bureau of Labor Statistics estimated the unemployment rate in Kings County to be 9.1%. Therefore, it is assumed that the existing population in Kings County would easily fulfill the labor demand for the proposed project. The project would not induce substantial unplanned population growth. There is *no impact.*

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

No Impact: The construction and operation of the proposed project would not result in existing residences being removed, and no individuals would be displaced because of the project. There is *no impact.*

Mitigation Measures for Impacts to Population and Housing

None Required

XV. PUBLIC SERVICES

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable serve ratios, response times of other performance objectives for any of the public services:				
a. Fire protection?	☐	☐	☑	☐
b. Police protection?	☐	☐	☑	☐
c. Schools?	☐	☐	☐	☑
d. Parks?	☐	☐	☐	☑
e. Other public facilities?	☐	☐	☐	☑

Environmental Setting

Fire: The Project Site is served by the Kings County Fire Department (KCFD), which operates 10 fire stations within unincorporated areas of the County and is headquartered in Hanford (2035 Kings County General Plan, Health and Safety Element). The KCFD has 88 full-time employees and responds to over 5,100 calls annually. The KCFD responds to a variety of calls, including structure, vehicle, wildland and grass fires, medical aids, traffic accidents, hazardous materials incidents and various public assistance calls.

Police: Law enforcement services are provided to the Project Site via the Kings County Sheriff's Department, which is headquartered in the City of Hanford. As noted in the Health and Safety Element of the 2035 Kings County General Plan, the County is currently divided into six beat districts with five Sheriff Sub-stations throughout Kings County. Each beat district has at least one deputy sheriff on duty at all times to serve the unincorporated communities and surrounding County areas. The California Highway Patrol provides traffic enforcement on State Highways and County roads. Kings County is within the California Highway Patrol's Central Division. The nearest CHP office to the Project Site is located in Hanford.

Schools: The proposed Project Site is located within the Central Union Elementary School District and Lemoore Union High School District. The nearest elementary school, Lemoore University Elementary Charter School, is located approximately 1 mile north of the Project Site.

Regulatory Setting

The Central Union Elementary School District and Lemoore Union High School District is regulated by the California Department of Education and the Kings County Sheriff's Department is regulated by the California Department of Justice. Objectives and Policies relating to Fire Protection are included in the

Health and Safety Element of the 2035 Kings County General Plan. These Objectives and Policies are as follows:

- Health and Safety Objective B1.4 Provide local health services and emergency medical services in the County's Community Districts to meet the needs of a growing population.
  - HS Policy B1.4.3: Ensure that County Fire Department personnel remain trained and equipped to provide emergency medical services to those in need of such services within the unincorporated areas of the County.
- Health and Safety Objective C2.2. Provide quality fire protection services throughout the County by the Kings County Fire Department, and Fire safety preventative measures to prevent unnecessary exposure of people and property to fire hazards in both County Local Responsibility Areas and State Responsibility Area.
  - HS Policy C2.2.1: Community planning efforts should evaluate the projected need for Fire Department personnel and equipment and necessary funding support to maintain current levels of service as community growth occurs.
  - HS Policy C2.2.2: Development proposals and code revisions shall be referred to the County Fire Department for review and comment.
  - HS Policy C2.2.3: Use the 1997 Uniform Code for the abatement of Dangerous Buildings. All new structures to be occupied shall be built to current Fire Code Standards.
  - HS Policy C2.2.4: Review development proposals according to California Department of Forestry and Fire Protection "Fire Hazard Severity Zone Maps" to determine whether a site is located within a Very High Fire Hazard Severity Zone and subject to Wildland-Urban Interface Fire Area Building Standards and defensible space requirements as adopted under Senate Bill 1595 and effective January 1, 2009.
  - HS Policy C2.2.5: Forward for review and comment all proposed structures within the State Responsibility Area to the California Department of Forestry and Fire Protection within all State Responsibility Areas.
- Health and Safety Objective C3.3. Maintain sufficient operational area clearance for the Kings County Fire Department Heliport that serves Kings County Fire Department Search and Rescue helicopter and contracted helicopter ambulance services which are critical to emergency response and safety of people within the region.
  - HS Policy C3.3.1: Critically review new development proposals within a quarter mile of the Kings County Fire Department heliport to ensure compatibility of structures and uses with the operation of helicopters at County Fire Station No. 4.

Discussion

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

a. Fire protection?

Less than Significant Impact: The Kings County Fire Department will provide fire protection services to the Project Site. The nearest Kings County Fire Station (Station 7) is located approximately 2 miles northeast of the Project Site. The existing unemployed population in Kings County is more than sufficient to meet the labor demands of the proposed project, so the project

would not contribute to an increased population size within the Kings County Fire Department Service Area. The project will not result in the need for new facilities for the Kings County Fire Department, nor will it extend the boundaries of the Kings County Fire Department Service Area. Additionally, the applicant will be required to pay impact development fee to offset any potential impacts to existing Fire Department Facilities. The impact is therefore *less than significant.*

b. Police protection?

Less than Significant Impact: Kings County will provide police protection services to the Project Site. The existing unemployed population in Kings County is more than sufficient to meet the labor demands of the proposed project, so the project would not contribute to an increased population size within the Kings County Sheriff Department service area. The project will not result in the need for new facilities for the Kings County Sheriff Department, nor will it extend to the boundaries of the Kings County Sheriff Department Service Area. Additionally, the applicant will be required to pay an impact development fee to offset any potential impacts to existing Sheriff Department Facilities. The impact is therefore *less than significant.*

c. Schools?

No Impact: The project will not result in additional residents to Kings County and will not increase the number of students in the school district. Therefore, there is *no impact.*

d. Parks?

No Impact: Because the project will not result in additional residents, the project will not create a need for additional parkland. Therefore, there is *no impact.*

e. Other Public Facilities?

No Impact: The proposed project will not result in additional residences, and the existing unemployed population in Kings County is more than sufficient to meet the labor demands of the proposed project, so the project would not contribute to an increased population size within Kings County. The project will not create the need for other public facilities to be expanded. There is *no impact.*

Mitigation Measures for Impacts to Public Services

None Required

XVI. RECREATION

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

Environmental Setting

Lemoore BMX Raceway is the closest recreational area to the Project Site and is located in the City of Lemoore. Kings County presently owns and maintains three parks (Burris, Hickey, and Kingston) which are located in the north portions of the County and surrounded by agricultural areas.

Regulatory Setting

2035 Kings County General Plan: The Open Space Element of the 2035 Kings County General Plan contains the following objectives and policies relating to parks and recreation.

- Open Space Objective D1.1 Maintain and enhance the existing County park system within available funding constraints.
    - OS Policy D1.1.1: Apply the "Public/Quasi-Public" land use designation to County parks.
    - OS Policy D1.1.2: Community Plans should facilitate the development and maintenance of community park(s) within Community District areas to expand recreational resources available to residents.
    - OS Policy D1.1.3: Support community involvement that builds capacity for the long-term maintenance and upkeep of open space and community park space within Community Districts.

- Open Space Objective D1.2 Encourage the development of private recreational facilities compatible with the rural character of Kings County.
    - OS Policy D1.2.1: Support the establishment of new commercial recreational development, provided it is compatible with surrounding land uses and the intensity of such development does not exceed the ability of the natural environment of the site and the surrounding area to accommodate it. Such facilities may include, but are not limited to campgrounds, recreational camps, hotels and destination resorts, ball courts and ball fields, skeet clubs and facilities, hunting and fishing clubs, and equestrian facilities.

Discussion

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 will not result in additional residents, so the project will not increase the use of existing parkland or create need for additional parkland. Therefore, there is no *impact.*

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

No Impact: There are no parkland or recreational facilities associated with the project. The project will not result in additional residents and the project will not create need for additional parkland. Therefore, there is no *impact.*

Mitigation Measures for Impacts to Recreation

None Required

XVII. TRANSPORTATION

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?	☐	☐	☐	☑

Environmental Setting

Transportation facilities within the vicinity of the proposed project area include Highway 41, Highway 198, and Jackson Avenue. The Kings County Association of Governments (KCAG) is the County's Regional Transportation Planning Agency and Metropolitan Planning Organization.

The County assesses the acceptability of roadways using Level of Service (LOS). The County has an LOS threshold of "E" for urban roads and an LOS threshold of "D" for rural roads. Table 7 provides a description and LOS rating of the roads involved in the project.

Name	No. of Lanes	Description	LOS (2006)	AADT (2006)
SR 198	4	Principal Arterial	B	18,500
SR 41	2	Principal Arterial	C	9,700
Jackson Avenue	2	Major Collector	B	1,380

Table 3-16. Roads within the Vicinity of the Project Site; Source: 2035 Kings County General Plan, Circulation Element

Regulatory Setting

Kings County Improvement Standards: The Kings County Improvement Standards are developed and enforced by the Kings County Public Works Department to guide the development and maintenance of County Roads. The cross-section drawings contained in the County Improvement Standards dictate the development of roads within the county.

2035 Kings County General Plan: The Circulation Element of the 2035 Kings County General Plan requires a minimum LOS rating of "D" for rural roads and "E" for urban roads, which can be found on page C-59 (Circulation Element, 2035 Kings County General Plan).

CEQA guidelines Section 15064.3 (b) - Criteria for Analyzing Transportation Impacts: Section 16064.3 (b) of the CEQA guidelines establishes the following criteria for analyzing transportation impacts.

1. **Land Use Projects.** Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be considered to have a less than significant transportation impact.
2. **Transportation Projects.** Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, a lead agency may tier from that analysis as provided in Section 15152.
3. **Qualitative Analysis.** If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.
4. **Methodology.** A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

Discussion

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

Less than Significant Impact: The project would not conflict with any adopted programs, plans, ordinances, or policies addressing transit, bicycle, or pedestrian facilities. The project is within a remote land use area and the project would not require public transit, or non-motorized transportation facilities during construction and operation. The project will adhere to all design standards established by the County. The project is consistent with the County Circulation Element Level of Service thresholds. Construction of the beef harvesting plant is estimated to generate a maximum of 89 trips per day and operation of the beef harvesting plant is expected to generate an average of 107 trips per day. While the project would result in the addition of new trips on these road segments, this increase will not result in traffic volumes exceeding Level of Service Threshold volumes shown on Table C-3 of the County Circulation Element, and Level of Service will not fall below LOS D on County Roads or LOS C on SR-41 or SR-198. The project does not conflict with any plans or ordinances regarding the effectiveness of the circulation system. There is *less than significant impact.*

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

Less than Significant Impact: The State of California Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Traffic Impacts in CEQA* dated December 2018 provides guidance for determining a project's transportation impacts. Transportation impacts are identified based on vehicle miles traveled (VMT).

The OPR Technical Advisory indicates that projects that generate or attract fewer than 110 trips per day generally may be presumed to cause a less-than-significant transportation impact. The OPR Technical Advisory also states: "*For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project.' Here, the term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks."* Therefore, large truck trips typical of those that will be generated by the proposed Project are generally excluded from the requirements of CEQA as they pertain to transportation impacts and VMT.

Of the 107 total average daily trips generated by the project, only 85 would be classified as on-road passenger vehicles and subject to CEQA VMT standards. Because the average daily employee, customer, and light-truck trips will be less than 110 trips, the Project may be presumed to cause a *less than significant transportation impact.*

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

No Impact: No public roadway design features or incompatible uses are included in the proposed project. All equipment will remain on-site and outside of public right-of-way (R-O-W). There is *no impact.*

d) Would the project result in inadequate emergency access?

No Impact: This project would not result in inadequate emergency access. The Project would not act as a barrier to an existing emergency access route. Emergency access to the site would be via Jackson Avenue. A network of private internal roads is proposed to provide full access to the entire project site. Additionally, the project is required to comply with all Public Work Standards and California Fire Code Standards regarding access drive widths and access spacing standards. Emergency access is not expected to be impacted by the project so there is *no impact.*

Mitigation Measures for Transportation Impacts

None Required

XVIII. Tribal Cultural Resources

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

Environmental Setting

Taylored Archaeology conducted background research and pedestrian survey of the Project boundary to determine whether prehistoric and historic resources will be affected by the Project. The investigation included: (1) a records search at the SSJVIC; (2) a request of the NAHC Sacred Lands File including the tribal representatives' contact information, and nongovernmental tribal outreach; (3) archival research; (4) an archaeological pedestrian survey; and (5) documentation of resources identified with the Project boundary. The full cultural resources assessment is available in Appendix C.

Cultural Resources Records Search: Results from SSJVIC records search indicated that there have been no previous cultural resource investigations conducted within the Project area. The records search did not identify any known cultural resources within the Project area or within a 0.5-mile radius surrounding area but did note six cultural resource investigations conducted within a 0.5-mile radius. A review of report KI-00033 revealed a prehistoric cultural resource potentially located within 0.5 miles from the Project site. The prehistoric cultural resource (P-16-000233) was a prehistoric burial and associated artifacts excavated in 1962.

NAHC Results and Native American Outreach: In an August 18, 2021, response to 4Creeks' request for information, the NAHC's Sacred Lands File results were positive (see Appendix C). The NAHC

recommended to contact the Santa Rosa Rancheria Tachi Yokut Tribe on the list of Native American tribes and individuals culturally affiliated with the Project area. The Santa Rosa Rancheria Tachi Yokut Tribe was contacted via letter and email. Other tribes on the NAHC contact list were also contacted via letter, with email follow-up. There were two email replies to Taylored Archaeology's September 23, 2021, tribal outreach letters: one from Cultural Resource Director Bob Pennell of Table Mountain Rancheria and the other from Cultural Specialist II Samantha McCarty of Santa Rosa Rancheria Tachi-Yokut Tribe on October 8, 2021. Pennell stated that the Project area falls outside of the Tribes area of cultural interest and suggested to contact the Santa Rosa Rancheria Tachi Yokut Tribe. McCarty requested to discuss the Project with the lead agency (Appendix C of Appendix C). No information was shared by tribal representatives that identified tribal cultural resources.

Pedestrian Survey: The archaeological pedestrian survey of the Project site did not identify any prehistoric resources. However, two canals were discovered on the Project site. 1) An unnamed canal that was at least 6 months old and privately owned and 2) A historic-era feature, a canal segment named Lateral 10 of the Lemoore Canal was identified in the Project boundary during the survey. The segment of Lateral 10 within the Project boundary was evaluated and found to not be eligible for inclusion within the CRHR. If the greater Lemoore Canal system is evaluated at a later date and found to be eligible for inclusion in the National Register of Historic Places (NRHP), then Lateral 10 may be potentially eligible for listing in the NRHP if it is found to be a contributor to the potential historical eligibility of the Lemoore Canal system.

Regulatory Setting

Definitions

Tribal Cultural Resource (TCR). Section 21074 of the California Public Resources Code states that Tribal Cultural Resources can include site features, places, cultural landscapes, sacred places, or objects, which are of cultural value to a Tribe. It is either listed on or eligible for the CA Historic Register or a local historic register, or determined by the lead agency to be treated as TCR.

Discussion

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

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

Less than Significant Impact with Mitigation Incorporated: Based on the results of the records search and Native American outreach, it is unknown if Tribal Cultural Resources listed or eligible for listing in the California Register of Historic Resources are present within the project site. NAHC's Sacred Lands File results were positive and tribes with cultural affiliation to the area were contacted to discuss the project. Two email responses were received in response to the tribal outreach letters: one from Cultural Resource Director Bob Pennell of Table Mountain Rancheria and the other from Cultural Specialist II Samantha McCarty of Santa Rosa Rancheria Tachi-Yokut Tribe on October 8, 2021. Pennell stated that the Project area falls outside of the Tribes area of cultural interest and suggested to contact the Santa

Rosa Rancheria Tachi Yokut Tribe. McCarty requested to discuss the Project with the lead agency (Appendix C of Appendix C). No information was shared by tribal representatives that identified tribal cultural resources within the project area.

Although no specific Tribal cultural resources were identified, the site is considered to have high prehistoric archaeological sensitivity. Implementation of Mitigation Measures CUL-1, CUL-2, CUL-3 & CUL-4 are necessary to avoid significant impacts. Therefore, impacts would be *less than significant with mitigation incorporated.*

Mitigation Measures:

CUL-1: Native American pre-construction briefing & monitoring. Prior to any ground disturbance, the proponent shall retain Santa Rosa Rancheria Cultural Staff to provide a pre-construction Cultural Sensitivity Training to construction staff regarding the discovery of cultural resources and the potential for discovery during ground disturbing activities, which will include information on potential cultural material finds and on the procedures to be enacted if resources are found. The proponent shall offer the Santa Rosa Rancheria Tachi Yokut Tribe the opportunity to provide a Native American Monitor during ground disturbing activities during construction. Tribal participation would be dependent upon the availability and interest of the Tribe.

CUL-2: Archaeological Monitoring. Prior to any ground disturbance, a surface inspection of the Project Site shall be conducted by a qualified archeologist. The qualified archeologist shall monitor the site during ground disturbing activities. The archeologist shall provide pre-construction briefings to supervisory personnel, any excavation contractor, and any person who will perform unsupervised, ground disturbing work on the project in connection with construction. These meetings will include information on potential cultural material findings and how to act on the procedures if resources are found.

CUL-3: Stop Work in the Event of Unanticipated Discoveries. In the event that cultural resources, paleontological resources or unique geologic features are discovered during construction, operations shall stop within 100 feet of the find, and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The qualified archaeologist shall determine the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the CEQA Guidelines. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing, and data recovery, among other options. Any previously undiscovered resources found during construction within the Project area shall be recorded on appropriate Department of Parks and Recreation forms and evaluated for significance. No further ground disturbance shall occur in the immediate vicinity of the discovery until approved by the qualified archaeologist. Prior to any ground disturbance, the applicant shall enter into an agreement with the Santa Rosa Rancheria Tachi Yokut Tribe ("Tribe") regarding cultural resources and burial treatment and protection ("Plan"), which shall be in a form acceptable to the Tribe and the County. Upon discovery of cultural resources, in addition to other procedures described in this mitigation measure, the Kings County Community Development Agency, along with other relevant agency or Tribal officials, shall be contacted to begin coordination on the disposition of the find(s), and treatment of any significant cultural resource shall be undertaken pursuant to the

Plan. In the event of any conflict between this mitigation measure and the Plan, the stipulations of the Plan shall control.

CUL-4: The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be Native American, the coroner will notify the California Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant Impact with Mitigation Incorporated: Based on the results of the records search and Native American outreach, it is unknown if Tribal Cultural Resources are present within the project site. In regard to the Project Site, Kings County has not made any determination of resources pursuant to criteria set forth in Subdivision (c) of Public Resources Code Section 5024.1. Although no specific Tribal cultural resources were identified, the site is considered to have high prehistoric archaeological sensitivity. Implementation of Mitigation Measures CUL-1, CUL-2, CUL-3 and CUL-4 are necessary to avoid significant impacts. Therefore, impacts would be *less than significant with mitigation incorporated.*

XIX. UTILITIES AND SERVICE SYSTEMS

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?	☐	☐	☐	☑

Environmental Setting

Wastewater: During Project operations, all domestic wastewater will be diverted to an onsite septic system. The location of this system has been identified and will be developed in accordance with the State Water Board's Onsite Wastewater Treatment Systems Policy. Stormwater and beef processing wastewater will be retained in an onsite doubled lined retention pond in accordance with State and Regional policies to protect surface and groundwater quality.

Solid Waste: Dead animal and unusable offal will be collected and disposed through an agreement with Baker Commodities. Blood and usable offal will be picked up from the site daily. Other solid waste collection and disposal service in Kings County will be provided by the Kings Waste and Recycling Authority (KWRA).

The KWRA was formed in 1998 by agreement between Kings County and the cities of Lemoore, Hanford, and Corcoran. Solid waste from the member jurisdictions is transported to KWRA Materials Recovery Facility in Hanford where wastes are separated for recycling, composting, or landfill disposal. Commercial solid waste is collected by private contract with licensed haulers. Used construction and demolition material is accepted at several approved facilities in the region.

Non-recyclable materials are transferred to the B-17 Landfill Unit at the Chemical Waste Management, Inc. (CWMI) Kettleman Hills Facility located on SR-41 in Kettleman Hills. The B-17 Landfill Unit has a maximum disposal rate of 2,000 tons per day, and currently accepts an average of 1,350 tons per day (http://kettlemanhillslandfill.wm.com/fact-sheets/2011/facility-overview.jsp).

The total permitted capacity of B-17 Landfill Unit is 18.4 million cubic yards according to Page 2-3 in Section 2.3 of the Draft Subsequent Environmental Impact Report (DSEIR) for Conditional Use Permit (CUP) No. 04-01 for the B-17 Landfill Project. The Waste Management Kettleman Hills B-17 Landfill 2016 Airspace Report (www.calrecycle.ca.gov/SWFacilities/Directory/16-AA-0021/Document/306996) lists a remaining capacity of approximately 15,843,300 cubic yards for B-17.

Page 2-3 in Section 2.3 of the DSEIR for CUP No. 04-01 for the B-17 Landfill Project also states that the facility will be permitted to receive up to 2,000 tons per day of non-hazardous waste (municipal solid waste and designated waste) for disposal, 6 days per week (except Sundays) from 8:00 a.m. until 6:00 p.m. There is no limit on Class II soils that are received for beneficial use, such as daily or intermediate cover, or wastes received for use alternative daily cover (ADC).

All human waste will be handled onsite utilizing an independent septic system in accordance with requirements set forth by the Kings County Environmental Health Services.

Water: Existing water entitlements currently provide water to the proposed Project Site. Implementation of the proposed project will not require additional water entitlements.

Stormwater: All stormwater from the facility will be collected and pumped to the wastewater collection system on the property for land application.

Electric Power and Natural Gas: The plant will require a new electrical service, as well as relocation of existing power poles throughout the property, which is in discussion with PG&E for proper coordination. The plant will also require the use of natural gas, which will be supplied by SoCalGas from the existing transmission line that runs along Jackson Avenue.

Regulatory Setting

CalRecycle: California Code of Regulations, Title 14, Natural Resources – Division 7 contains all current CalRecycle regulations regarding nonhazardous waste management in the state. These regulations include standards for the handling of solid waste, standards for the handling of compostable materials, design standards for disposal facilities, and disposal standards for specific types of waste.

Central Valley RWQCB: The Central Valley RWQCB requires a Stormwater Pollution Prevention Plan (SWPPP) for projects disturbing more than one acre of total land area. Because the project is greater than one acre, a SWPPP to manage stormwater generated during project construction will be required.

The Central Valley RWQCB regulates Wastewater Discharges to Land by establishing thresholds for discharged pollutants and implementing monitoring programs to evaluate program compliance. This program regulates approximately 1500 dischargers in the region. The Central Valley RWQCB is also responsible for implementing the federal program, the National Pollutant Discharge Elimination System (NPDES). The NPDES Program is the federal permitting program that regulates discharges of pollutants to

surface waters of the U.S. Under this program, a NPDES permit is required to discharge pollutants into Waters of the U.S. There are 350 permitted facilities within the Central Valley Region.

Discussion

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 expansion of which could cause significant environmental effects?

Less than Significant Impact: Water used during construction for purposes of dust control would be promptly absorbed by the pervious ground surface and would not require new stormwater facilities.

During Project operations, all domestic wastewater will be diverted to an onsite septic system. The location of this system has been identified and will be developed in accordance with the State Water Board's Onsite Wastewater Treatment Systems Policy. Stormwater and beef processing wastewater will be retained in an onsite doubled lined retention pond in accordance with State and Regional policies to protect surface and groundwater quality. A Report of Waste Discharge was submitted to the Regional Water Board in April 2022. This report analyzed wastewater and stormwater volumes to ensure appropriate sizing of the proposed retention basin. The results of this analysis are provided in Table 3-17, below.

Volume Description	Total Volume in 120 Day Period (gallons)
Wastewater from Operations	6,731,735
Wastewater Accumulated From Normal Precipitation w/ 1.5 Factor	3,622,971
Wastewater Accumulated From 25 Year, 24 Hour Event	956,878
Less: Evaporation from Wastewater Retention Pond	(1,206,857)
Net Required Wastewater Retention Storage Volume	10,104,727
Net proposed Wastewater Retention Storage Volume	18,738,098
Excess Wastewater Retention Pond Capacity	8,633,371

Table 3-17. Summary of Retention Pond Capacity Analysis.

The plant will require internet and phone lines to be installed for communications. In addition, the plant will require a new electrical service from PG&E and also require the use of natural gas, which will be supplied by SoCalGas from the existing transmission line that runs along Jackson Avenue. Environmental impacts associated with these activities are included in the analysis provided by this Initial Study. The impact is *less than significant.*

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 proposed project would not have a significant impact on groundwater resources. During construction of the proposed beef harvesting plant, water use is estimated to be approximately 0.12 acre-feet/acre/month. This water will be used primarily for dust control. The existing property is farmed for agricultural production, utilizing millions of gallons per week of groundwater during certain times of the year. The proposed plant will require approximately 150,000 gallons of water per week, most of which will be recycled for deck flush.

Because water use associated with operation of the beef harvesting plant would not exceed that of adjacent agricultural uses, it is inferred the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Therefore, the project will have sufficient water supplies available to serve the project and reasonably foreseeable future development and the impact is *less than significant.*

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: All wastewater generated onsite will be contained and treated onsite. All human waste will be processed utilizing an onsite septic system, and all animal/process waste will be pre-treated and repurposed for land application at agronomic rates. There would be *no impacts* to the applicable wastewater treatment provider.

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?

Less than Significant Impact: Waste Management will be provided by Kings Waste and Recycling Authority. The proposed Project is expected to generate approximately 1,200 lbs of solid waste daily, however biproduct materials including blood and usable offal will be picked up daily and used to create other products, which will minimize excess waste. The impact is *less than significant.*

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

No Impact: The proposed project would comply California Integrated Waste Management Act of 1989 (AB 939), which requires each city and county in California to prepare, adopt, and implement a Source Reduction and Recycling Element. Policies pertaining to solid waste, source reduction, and recycling are identified in the Source Reduction and Recycling Element (SRRE) and the Household Hazardous Waste Element (HHWE) of the Kings County Integrated Waste Management Plan. The KWRA serves all County unincorporated areas, and the Cities of Corcoran, Hanford and Lemoore. Municipal waste generated in these areas are first directed to the KWRA facility and then transferred to the Chemical Waste Management, Inc. Kettleman Hills Facility which operates both municipal waste and hazardous waste landfills at their site located west of Interstate 5 along State Route 41.

As described above, materials would be disposed of at MSW Landfill B-17, in Kettleman City, California, which is permitted by Kings County and inspected monthly by the Kings County Health Department, Environmental Health Services Division. Some construction waste would be recycled at the KWRA Material Recovery Facility and Transfer Station as possible, prior to the remainder of the waste being disposed of at MSW Landfill B-17. Any hazardous materials and wastes would be recycled, treated, and disposed of in accordance with federal, state, and local laws. Therefore, there would *be no impacts* under this criterion.

Mitigation Measures for Impacts to Utilities and Service Systems

None Required

XX. WILDFIRE

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

Environmental Setting

According to the Fire Hazard Severity Zone map provided by the California Department of Forestry and Fire Protection (Cal Fire), the project is not located in or near state responsibility areas or lands classified as very high fire severity zones. The Project Site is located approximately 28 miles east of the closest very high fire hazard severity zone in a state responsibility area. The Project Site and its surrounding areas are developed for agricultural uses and are not susceptible to wildfires.

Regulatory Setting

Definition

Fire hazard severity zones: geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very High, High, or Moderate in State Responsibility Areas or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code, Sections 51175 through 51189.

Kings County Emergency Operations Plan (2015): The Kings County Emergency Operations Plan establishes goals, priorities, and strategies in the event of an emergency. The goals and priorities are outlined below.

2.1 Goals, Priorities and Strategies: During the response phase, emergency managers set goals, prioritize actions and outline operational strategies. This plan provides a broad overview of those goals, priorities and strategies, and describes what should occur during each step, when, and at whose direction.

2.1.1 Operational Goals: During the response phase, the agencies that are charged with responsibilities in this plan should focus on the following five goals:

- Mitigate hazards.
- Meet basic human needs.
- Address needs of people with disabilities and others with access and functional needs.
- Restore essential services.
- Support community and economic recovery.

2.1.2 Operational Priorities: Operational priorities govern resource allocation and the response strategies for the County of Kings and its political subdivisions during an emergency. Below are operational priorities addressed in this plan.

- Save Lives – The preservation of life is the top priority of emergency managers and first responders, and takes precedence over all other considerations.
- Protect Health and Safety – Measures should be taken to mitigate the impact of the emergency on public health and safety.
- Protect Property – All feasible efforts must be made to protect public and private property and resources, including critical infrastructure, from damage during and after an emergency.
- Preserve the Environment – All possible efforts must be made to preserve California's environment and protect it from damage during an emergency.

Discussion

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

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact: The Project Site falls under Kings County Operational Area. Kings County has established an Emergency Operations Plan detailing multi-jurisdictional and interagency coordination during emergency operations. The project will be reviewed by the County's Fire Department to ensure that the project does not impair emergency response or emergency evacuation. There is *no impact.*

b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?

No Impact: The Kings County Multi-Jurisdictional Local Hazard Mitigation Plan describes Kings County as mostly flat with a gentle sloping towards a topographic low point in the Tulare Lake Basin. Thus, the topography of Kings County reduces fire hazard throughout most of the County. The project would not exacerbate wildfire risks and expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. There is *no impact.*

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?

Less than Significant Impact: The project involves relocation of existing power poles at the site of the beef harvesting plant. Construction and operations related activities will comply with the California Fire Code and California Building Codes. The Kings County Fire Department will be responsible for enforcing provisions of the Fire Code, and the safety of power lines will be regulated through the California Public Utilities Code. The impact is *less than significant.*

d) 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?

No Impact: The proposed project will not alter existing drainage patterns or increase surface runoff in a manner that could result in flooding on or off site. The project area is generally flat and no significant grading or leveling will be required. Added impervious surfaces will be limited to the 72,000-sf building footprint, drive aisles and parking/loading areas and all stormwater will be contained on-site. Since the proposed project will not expose people or structures to downslope or downstream flooding or landslides, there is *no impact.*

Mitigation Measures for Wildfire Impacts

None Required

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

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

Discussion

a) 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: This initial study/mitigated negative declaration found the project could have significant impacts on water quality, biological resources and cultural resources. However, implementation of the identified mitigation measures for each respective section would ensure that impacts are *less than significant with mitigation incorporated.*

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 15065(a) 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. Due to the project's consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The proposed project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc.)

As described in the impact analysis in Sections I through XX above, any potentially significant impacts of the proposed project would be reduced to a less-than-significant level following incorporation of the mitigation measures listed in the Mitigation Monitoring and Reporting Program. All pending, approved, and completed projects in the vicinity of the proposed project would be subject to review in separate environmental documents and required to conform to the 2035 Kings County General Plan, the Kings County Development Code, mitigate for project-specific impacts, and provide appropriate engineering to ensure the development meets all applicable federal, State and local regulations and codes. As currently designed, and by complying with the recommended mitigation measures, the proposed project would not contribute to a cumulative impact. Thus, the cumulative impacts of pending, approved, and completed projects would be less than cumulatively considerable. Impacts would be *less than significant with mitigation incorporated*.

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 analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the project design to reduce all potentially significant impacts to less than significant, which results in a *less than significant* impact to this checklist item.

XXII. MITIGATION MONITORING AND REPORTING PROGRAM

As required by Public Resources Code Section 21081.6, subd. (a)(1), a Mitigation Monitoring and Reporting Program (MMRP) has been prepared for the project in order to monitor the implementation of the mitigation measures that have been adopted for the project. This Mitigation Monitoring and Reporting Program (MMRP) has been created based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Sandridge Cattle Beef Harvesting Plant Project proposed by Sandridge Partners, L.P. in Kings County.

The first column of the table identifies the mitigation measure. The second column names the party responsible for carrying out the required action. The third column, "Timing of Mitigation Measure" identifies the time the mitigation measure should be initiated. The fourth column, "Responsible Party for Monitoring," names the party ensuring that the mitigation measure is implemented. The last column will be used by the County to ensure that the individual mitigation measures have been monitored.

Plan checking and verification of mitigation compliance shall be the responsibility of Kings County.

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure AG-1: Prior to issuance of building permits, the applicant shall mitigate for the loss of Farmland of Statewide Importance at a ratio of 1:1 with restrictive covenants, which are effective for the life of this project. The agricultural land preserved under the restrictive covenants shall be of equal or greater quality as defined by the California Department of Conservation's Farmland Mapping and Monitoring Program.	Project Sponsor	Prior to issuance of building permits	Kings County	
Mitigation Measure BIO-1a: Construction Timing. If feasible, project construction will occur entirely outside the Swainson's hawk nesting season, typically defined as March 1-September 15.	Project Sponsor	Ongoing during Construction	Kings County	
Mitigation Measure BIO-1b: Preconstruction Surveys. If construction activities must occur between March 1 and September 15, then within 10 days prior to the start of work, a qualified biologist will conduct preconstruction surveys from publicly accessible roads for Swainson's hawk nests within ½ mile of the work area(s) in question.	Project Sponsor	Within ten Days Prior to the Start of Construction. Only required if construction occurs between March 1 and September 15th	Kings County	
Mitigation Measure BIO-1c: Avoidance. Should any active nests be identified, the biologist will establish a suitable disturbance-free buffer around the nest, to be maintained until the biologist has determined that the young have fledged.	Project Sponsor	Ongoing during Construction. Only required if construction occurs between March 1 and September 15th	Kings County	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure BIO-2a: Avoidance. In order to avoid impacts to nesting migratory birds and raptors, construction will occur, where possible, outside the nesting season, or between September 1 and January 31.	Project Sponsor	Ongoing during Construction.	Kings County	
Mitigation Measure BIO-2b: Preconstruction Surveys. If construction must occur during the nesting season (February 1-August 31), a qualified biologist will conduct preconstruction surveys for active migratory bird and raptor nests within 10 days of the onset of these activities. Nest surveys will include all areas on and within 500 feet of the project site, where accessible. Inaccessible areas will be surveyed using binoculars or a spotting scope. If no active nests are found within the survey area, no further mitigation is required.	Project Sponsor	Within ten Days Prior to the Start of Construction. Only required if construction occurs between February 1 and October 31st	Kings County	
Mitigation Measure BIO-2c: Establish Buffers. Should any active nests be discovered in or near proposed work areas, the biologist will determine appropriate construction setback distances based on applicable CDFW guidelines and/or the biology of the affected species. Construction-free buffers will be identified on the ground with flagging, fencing, or by other easily visible means, and will be maintained until the biologist has determined that the young have fledged.	Project Sponsor	Ongoing during Construction. Only required if construction occurs between February 1 and October 31st	Kings County	
Mitigation Measure BIO-2d: Nest Monitoring. Should construction need to occur within the construction free buffers, then prior to initiation of these activities a qualified biologist will conduct a survey to establish a behavioral baseline of the affected nest(s). When construction begins within the buffer, the qualified biologist will continuously monitor nests to detect behavioral changes resulting from the project. If behavioral changes occur, the work causing that change will cease. If there are no behavioral changes after one week of monitoring, then monitoring may be reduced as determined by the biologist.	Project Sponsor	Ongoing during Construction. Only required if construction occurs between February 1 and October 31st	Kings County	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure BIO-3a: Take Avoidance Survey. A take avoidance survey for burrowing owls will be conducted by a qualified biologist no less than 14 days prior to the start of construction. This take avoidance survey will be conducted according to methods described in the Staff Report on Burrowing Owl Mitigation (CDFG 2012). The survey area will include all potential roosting and nesting habitat on and within 200 meters of project impact areas, where accessible.	Project Sponsor	Within fourteen Days Prior to the Start of Construction	Kings County	
Mitigation Measure BIO-3b: Avoidance of Active Nests. If pre-construction surveys are undertaken during the breeding season (February 1 through August 31) and active nest burrows are located within or near construction zones, a construction-free buffer of 250 feet should be established around all active owl nests. The buffer areas should be enclosed with temporary fencing or flagging, and construction equipment and workers should not enter the enclosed setback areas. Buffers should remain in place for the duration of the breeding season. After the breeding season (i.e. once all young have left the nest), passive relocation of any remaining owls may take place as described below.	Project Sponsor	Within fourteen Days Prior to the Start of Construction. Only required if preconstruction surveys are taken during breeding season (February 1st – August 31st) and active nest burrows are discovered.	Kings County	
Mitigation Measure BIO-3c: Passive Relocation of Resident Owls. During the nonbreeding season (September 1-January 31), resident owls occupying burrows in project impact areas may either be avoided, or passively relocated to alternative habitat. If the applicant chooses to avoid active owl burrows within the impact area during the nonbreeding season, a 50-meter disturbance-free buffer will be established around these burrows. The buffers will be enclosed with temporary fencing, and will remain in place until a qualified biologist determines that the burrows are no longer active. If the applicant chooses to passively relocate owls during the non-breeding season, this activity will be conducted in accordance with a relocation plan prepared by a qualified biologist.	Project Sponsor	Ongoing during Construction	Kings County	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure CUL-1: Native American pre-construction briefing & monitoring. Prior to any ground disturbance, the proponent shall retain Santa Rosa Rancheria Cultural Staff to provide a pre-construction Cultural Sensitivity Training to construction staff regarding the discovery of cultural resources and the potential for discovery during ground disturbing activities, which will include information on potential cultural material finds and on the procedures to be enacted if resources are found. The proponent shall offer the Santa Rosa Rancheria Tachi Yokut Tribe the opportunity to provide a Native American Monitor during ground disturbing activities during construction. Tribal participation would be dependent upon the availability and interest of the Tribe.	Project Sponsor	Prior to the start of construction and ongoing during construction	Kings County	
Mitigation Measure CUL-2: Archaeological Monitoring. Prior to any ground disturbance, a surface inspection of the Project Site shall be conducted by a qualified archeologist. The qualified archeologist shall monitor the site during ground disturbing activities. The archeologist shall provide pre-construction briefings to supervisory personnel, any excavation contractor, and any person who will perform unsupervised, ground disturbing work on the project in connection with construction. These meetings will include information on potential cultural material findings and how to act on the procedures if resources are found.	Project Sponsor	Prior to the start of construction and ongoing during construction	Kings County	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure CUL-3: Stop Work in the Event of Unanticipated Discoveries. In the event that cultural resources, paleontological resources or unique geologic features are discovered during construction, operations shall stop within 100 feet of the find, and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The qualified archaeologist shall determine the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the CEQA Guidelines. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing, and data recovery, among other options. Any previously undiscovered resources found during construction within the Project area shall be recorded on appropriate Department of Parks and Recreation forms and evaluated for significance. No further ground disturbance shall occur in the immediate vicinity of the discovery until approved by the qualified archaeologist. Prior to any ground disturbance, the applicant shall enter into an agreement with the Santa Rosa Rancheria Tachi Yokut Tribe ("Tribe") regarding cultural resources and burial treatment and protection ("Plan"), which shall be in a form acceptable to the Tribe and the County. Upon discovery of cultural resources, in addition to other procedures described in this mitigation measure, the Kings County Community Development Agency, along with other relevant agency or Tribal officials, shall be contacted to begin coordination on the disposition of the find(s), and treatment of any significant cultural resource shall be undertaken pursuant to the Plan. In the event of any conflict between this mitigation measure and the Plan, the stipulations of the Plan shall control.	Project Sponsor	Ongoing during construction	Kings County	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure CUL-4: The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be Native American, the coroner will notify the California Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resource Code Section 5097.98.	Project Sponsor	Ongoing during construction	Kings County	
Mitigation Measure HAZ-1: In order to protect the public from potential release of hazardous materials, the project applicant shall prepare and implement a new Hazardous Materials Business Plan (HMBP) in accordance with the requirements of the Kings County Public Health Department's Environmental Health Services Division and the Hazardous Materials Release Response Plan and Inventory Act of 1985. Under this state law, the applicant is required to prepare an HMBP to be submitted to the Kings County Public Health Department, Environmental Health Services Division, which is the Certified Unified Program Agency (CUPA) for Kings County. The HMBP shall include a hazardous material inventory, emergency response procedures, training program information, and basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of at the proposed project site, and procedures for handling and disposing of unanticipated hazardous materials encountered during construction. The HMBP shall include an inventory of the hazardous waste generated on-site, and would specify procedures for proper disposal. As required, hazardous waste would be transported by a licensed hauler and disposed of at a licensed facility. According to the HMBP reporting requirements, workers must be trained to respond to releases of hazardous materials in accordance with state and federal laws and	Project Sponsor	Prior to the start of construction	Kings County	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
regulations governing hazardous materials and hazardous waste (e.g., HAZWOPER training required by OSHA). Any accidental release of small quantities of hazardous materials shall be promptly contained and abated in accordance with applicable regulatory requirements and reported to the Environmental Health Services Division. As the CUPA for Kings County, the Environmental Health Services Division of the County Public Health Department is responsible for implementation and enforcement of HMBPs. Implementation of the HMBP for the project would ensure that minor spills or releases of hazardous materials would not pose a significant risk to the public or the environment.				
Mitigation Measure HYD-1: Stormwater Quality Protection: Prior to project construction, the applicant shall be required to file a "Notice of Intent" (NOI) with the SWRCB to comply with the General Permit and prepare a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall be prepared by a licensed engineer and shall detail the treatment measures and best management practices (BMPs) to control pollutants that shall be implemented and complied with during project construction. Example SWPPP measures may include the following: • Preserve existing vegetation where required and when feasible • Reseeding vegetation, where appropriate • Control erosion in concentrated flow paths by applying erosion control blankets, check dams, erosion control seeding, or alternative methods Maintain sufficient quantities of temporary sediment control materials on-site throughout the duration of the project	Project Sponsor	Prior to the Start of Construction	Kings County	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure HYD-2: Report of Waste Discharge. Prior to construction grading the applicant shall be required to file a Report of Waste Discharge (RWD) with the Central Valley Regional Water Quality Control Board (CVRWQCB) pursuant to California Water Code (CWC) Section 13260. Waste water generated from the facility will be pretreated to remove harmful constituents so that the water can be used for land application at agronomic rates. The RWD shall include a technical report addressing waste water treatment operations, waste water volume, waste water characteristics, land application areas and waste water loading rates to ensure proper application for crop utilization. Pursuant to the CVRWQCB permitting process, the applicant shall file a Notice of Intent (NOI) with the Kings Water Alliance for the Regional Central Valley Salinity Alternatives for Long-term Sustainability (CV-SALTS) Nitrate Control Program.	Project Sponsor	Prior to the Start of Construction	Kings County	

3.6 SUPPORTING INFORMATION AND SOURCES

1. 2035 Kings County General Plan. https://www.countyofkings.com/departments/community-development-agency/information/2035-general-plan
2. Kings County General Plan EIR. https://www.countyofkings.com/home/showdocument?id=5897
3. Kings County Regional Climate Action Plan. https://www.kingscog.org/vertical/sites/%7BC427AE30-9936-4733-B9D4-140709AD3BBF%7D/uploads/RegionalCAP-GHGAppendices.pdf
4. Kings County Zoning Ordinance. https://www.countyofkings.com/departments/community-development-agency/information/zoning-ordinance
5. Improvements Standards, Kings County. https://www.countyofkings.com/home/showdocument?id=15475
6. SJVAPCD Regulations and Guidelines. http://www.valleyair.org/rules/1ruleslist.htm
7. Flood Insurance Rate Maps. https://www.fema.gov/flood-insurance-rate-map-firm
8. California Air Resources Board's (CARB's) Air Quality and Land Use Handbook. https://www.arb.ca.gov/ch/handbook.pdf
9. 2010 California Environmental Quality Act CEQA Guidelines. http://resources.ca.gov/ceqa/docs/2010_CEQA_Statutes_and_Guidelines.pdf
10. California Building Code. http://www.bsc.ca.gov/Codes.aspx
11. California Stormwater Pollution Prevention Program (SWPPP). http://www.dot.ca.gov/hq/construc/stormwater/SWPPP_Prep_Manual_3_03.pdf
12. Government Code Section 65962.5. https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV&sectionNum=65962.5
13. California Environmental Protection Agency (CEPA). https://calepa.ca.gov/
14. Pacific Gas and Electric Company Carbon Footprint Calculator Assumptions. https://www.pge.com/includes/docs/pdfs/about/environment/calculator/assumptions.pdf
15. Lamancusa, J.S. "Transmission of Sound through Structures." *Penn State,* ME 458 – Engineering Noise Control, 2000. https://www.mne.psu.edu/lamancusa/me458/
16. US Department of Housing and Urban Development Noise Guidebook. *Hud Exchange,* 2009. https://www.hudexchange.info/resource/313/hud-noise-guidebook/
17. Federal Highway Administration Noise Barrier Design Handbook. https://rosap.ntl.bts.gov/view/dot/977/dot_977_DS1.pdf?
18. Federal Highway Administration Construction Noise Handbook.
19. Noise Control For Buildings – Guidelines for acoustical problem solving. *CertainTeed Saint-Gobain.* https://www.certainteed.com/resources/30-29-121.pdf
20. https://www.socalgas.com/1443740736978/gas-quality-standards-one-sheet.pdf
21. *https://fred.stlouisfed.org/series/CAKING3URN*
22. *https://sgp.fas.org/crs/misc/R44093.pdf*
23. *Kings County Department of Agriculture 2020 Crop Report. https://www.countyofkings.com/home/showpublisheddocument/27389/637654154589100000*

SECTION 4

List of Preparers

KINGS COUNTY

Community Development Agency
1400 W. Lacey Blvd., Bld. 6
Hanford, CA 93230

SECTION 4
LIST OF PREPARERS

LIST OF PREPARERS

4-Creeks Inc.
- David Duda, AICP, GISP
- Molly Baumeister, Associate Planner

PERSONS AND AGENCIES CONSULTED

The following individuals and agencies contributed to this Initial Study/Mitigated Negative Declaration:

4-Creeks Inc.
- David De Groot, PE.
- Matt Razor, PE.
- Kyle Parreira, PE
- David Mendez, Utility Design and Coordinator

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- On Man Lau, PE, GE.

California Historic Resources Information System
- Celeste Thomson, Coordinator

Kings County
- Chuck Kinney, Deputy Director of Planning
- Victor Hernandez, County Planner

Live Oak and Associates
- Jeff Gurule, Senior Project Manager
- Austin Pearson, Director of Ecological Services

Peters Engineering Group
- John Rowland, PE, TE

Taylored Archaeology
- Consuelo Sauls, M.A.

Appendix A

Air Quality/GHG Assessment

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sandridge Beef Plant

Kings County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	60.00	1000sqft	1.38	60,000.00	0
Refrigerated Warehouse-No Rail	10.00	1000sqft	0.23	10,000.00	0
Parking Lot	155.00	Space	1.39	62,000.00	0
Supermarket	1.90	1000sqft	0.04	1,900.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	37
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Vehicle Trips - See Trip Generation Estimates provided in Traffic Study

Water And Wastewater - Project would use approximately 50,000 gal/day

Construction Off-road Equipment Mitigation -

Mobile Commute Mitigation -

Fleet Mix - Project Specific Fleet Mix Used. See Energy Calculations in Appendix.

Sandridge Beef Plant - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.04	0.09
tblFleetMix	HHD	0.04	0.09
tblFleetMix	HHD	0.04	0.09
tblFleetMix	HHD	0.04	0.09
tblFleetMix	LDA	0.50	0.41
tblFleetMix	LDA	0.50	0.41
tblFleetMix	LDA	0.50	0.41
tblFleetMix	LDA	0.50	0.41
tblFleetMix	LDT1	0.05	0.04
tblFleetMix	LDT1	0.05	0.04
tblFleetMix	LDT1	0.05	0.04
tblFleetMix	LDT1	0.05	0.04
tblFleetMix	LDT2	0.17	0.14
tblFleetMix	LDT2	0.17	0.14
tblFleetMix	LDT2	0.17	0.14
tblFleetMix	LDT2	0.17	0.14
tblFleetMix	LHD1	0.03	0.08
tblFleetMix	LHD1	0.03	0.08
tblFleetMix	LHD1	0.03	0.08
tblFleetMix	LHD1	0.03	0.08
tblFleetMix	LHD2	6.8650e-003	0.02
tblFleetMix	LHD2	6.8650e-003	0.02
tblFleetMix	LHD2	6.8650e-003	0.02
tblFleetMix	LHD2	6.8650e-003	0.02
tblFleetMix	MHD	8.2360e-003	0.02
tblFleetMix	MHD	8.2360e-003	0.02
tblFleetMix	MHD	8.2360e-003	0.02
tblFleetMix	MHD	8.2360e-003	0.02

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	6.42	1.45
tblVehicleTrips	ST_TR	2.12	0.00
tblVehicleTrips	ST_TR	177.62	5.18
tblVehicleTrips	SU_TR	5.09	1.45
tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	SU_TR	166.47	5.18
tblVehicleTrips	WD_TR	3.93	1.45
tblVehicleTrips	WD_TR	2.12	0.00
tblVehicleTrips	WD_TR	106.78	5.18
tblWater	IndoorWaterUseRate	13,875,000.00	12,500,000.00
tblWater	IndoorWaterUseRate	2,312,500.00	0.00
tblWater	IndoorWaterUseRate	234,209.61	0.00
tblWater	OutdoorWaterUseRate	7,243.60	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2228	1.9202	2.0724	4.0900e-003	0.1649	0.0932	0.2581	0.0625	0.0876	0.1501	0.0000	360.6170	360.6170	0.0654	7.8600e-003	364.5938
2023	0.5467	0.2695	0.3492	6.5000e-004	0.0131	0.0127	0.0258	3.5000e-003	0.0120	0.0155	0.0000	57.2528	57.2528	0.0114	9.0000e-004	57.8042
Maximum	**0.5467**	**1.9202**	**2.0724**	**4.0900e-003**	**0.1649**	**0.0932**	**0.2581**	**0.0625**	**0.0876**	**0.1501**	**0.0000**	**360.6170**	**360.6170**	**0.0654**	**7.8600e-003**	**364.5938**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2228	1.9202	2.0724	4.0900e-003	0.1176	0.0932	0.2109	0.0387	0.0876	0.1263	0.0000	360.6167	360.6167	0.0654	7.8600e-003	364.5935
2023	0.5467	0.2695	0.3492	6.5000e-004	0.0131	0.0127	0.0258	3.5000e-003	0.0120	0.0155	0.0000	57.2527	57.2527	0.0114	9.0000e-004	57.8042
Maximum	**0.5467**	**1.9202**	**2.0724**	**4.0900e-003**	**0.1176**	**0.0932**	**0.2109**	**0.0387**	**0.0876**	**0.1263**	**0.0000**	**360.6167**	**360.6167**	**0.0654**	**7.8600e-003**	**364.5935**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**26.56**	**0.00**	**16.65**	**36.02**	**0.00**	**14.36**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
2	**12-30-2021**	**3-29-2022**	0.2611	0.2611
3	**3-30-2022**	**6-29-2022**	0.6214	0.6214
4	**6-30-2022**	**9-29-2022**	0.6213	0.6213
5	**9-30-2022**	**12-29-2022**	0.6174	0.6174
6	**12-30-2022**	**3-29-2023**	0.7998	0.7998
		Highest	0.7998	0.7998

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3363	2.0000e-005	2.0800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.3200e-003
Energy	7.0000e-003	0.0636	0.0535	3.8000e-004		4.8400e-003	4.8400e-003		4.8400e-003	4.8400e-003	0.0000	147.8019	147.8019	0.0140	2.8100e-003	148.9901
Mobile	0.0579	0.2199	0.5648	1.7700e-003	0.1332	2.2300e-003	0.1355	0.0359	2.1200e-003	0.0380	0.0000	165.4954	165.4954	6.2100e-003	0.0133	169.6265
Waste						0.0000	0.0000		0.0000	0.0000	19.1867	0.0000	19.1867	1.1339	0.0000	47.5343
Water						0.0000	0.0000		0.0000	0.0000	3.9657	6.2581	10.2238	0.4083	9.7400e-003	23.3345
Total	**0.4011**	**0.2835**	**0.6204**	**2.1500e-003**	**0.1332**	**7.0800e-003**	**0.1403**	**0.0359**	**6.9700e-003**	**0.0429**	**23.1524**	**319.5595**	**342.7119**	**1.5625**	**0.0259**	**389.4896**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3363	2.0000e-005	2.0800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.3200e-003
Energy	7.0000e-003	0.0636	0.0535	3.8000e-004		4.8400e-003	4.8400e-003		4.8400e-003	4.8400e-003	0.0000	147.8019	147.8019	0.0140	2.8100e-003	148.9901
Mobile	0.0579	0.2199	0.5648	1.7700e-003	0.1332	2.2300e-003	0.1355	0.0359	2.1200e-003	0.0380	0.0000	165.4954	165.4954	6.2100e-003	0.0133	169.6265
Waste						0.0000	0.0000		0.0000	0.0000	19.1867	0.0000	19.1867	1.1339	0.0000	47.5343
Water						0.0000	0.0000		0.0000	0.0000	3.9657	6.2581	10.2238	0.4083	9.7400e-003	23.3345
Total	**0.4011**	**0.2835**	**0.6204**	**2.1500e-003**	**0.1332**	**7.0800e-003**	**0.1403**	**0.0359**	**6.9700e-003**	**0.0429**	**23.1524**	**319.5595**	**342.7119**	**1.5625**	**0.0259**	**389.4896**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**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**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2022	3/7/2022	5	5	
2	Grading	Grading	3/7/2022	3/16/2022	5	8	
3	Building Construction	Building Construction	3/17/2022	2/1/2023	5	230	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	2/6/2023	3/1/2023	5	18	
5	Architectural Coating	Architectural Coating	3/1/2023	3/24/2023	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 1.39

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 107,850; Non-Residential Outdoor: 35,950; Striped Parking Area: 3,720 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	56.00	22.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9300e-003	0.0827	0.0492	1.0000e-004		4.0300e-003	4.0300e-003		3.7100e-003	3.7100e-003	0.0000	8.3599	8.3599	2.7000e-003	0.0000	8.4274
Total	**7.9300e-003**	**0.0827**	**0.0492**	**1.0000e-004**	**0.0491**	**4.0300e-003**	**0.0532**	**0.0253**	**3.7100e-003**	**0.0290**	**0.0000**	**8.3599**	**8.3599**	**2.7000e-003**	**0.0000**	**8.4274**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.7600e-003	0.0000	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4526	0.4526	1.0000e-005	1.0000e-005	0.4567
Total	**1.9000e-004**	**1.5000e-004**	**1.7600e-003**	**0.0000**	**5.6000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4526**	**0.4526**	**1.0000e-005**	**1.0000e-005**	**0.4567**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0192	0.0000	0.0192	9.8500e-003	0.0000	9.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9300e-003	0.0827	0.0492	1.0000e-004		4.0300e-003	4.0300e-003		3.7100e-003	3.7100e-003	0.0000	8.3598	8.3598	2.7000e-003	0.0000	8.4274
Total	**7.9300e-003**	**0.0827**	**0.0492**	**1.0000e-004**	**0.0192**	**4.0300e-003**	**0.0232**	**9.8500e-003**	**3.7100e-003**	**0.0136**	**0.0000**	**8.3598**	**8.3598**	**2.7000e-003**	**0.0000**	**8.4274**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.7600e-003	0.0000	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4526	0.4526	1.0000e-005	1.0000e-005	0.4567
Total	**1.9000e-004**	**1.5000e-004**	**1.7600e-003**	**0.0000**	**5.6000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4526**	**0.4526**	**1.0000e-005**	**1.0000e-005**	**0.4567**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7900e-003	0.0834	0.0611	1.2000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.4219	10.4219	3.3700e-003	0.0000	10.5062
Total	**7.7900e-003**	**0.0834**	**0.0611**	**1.2000e-004**	**0.0283**	**3.7600e-003**	**0.0321**	**0.0137**	**3.4600e-003**	**0.0172**	**0.0000**	**10.4219**	**10.4219**	**3.3700e-003**	**0.0000**	**10.5062**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	2.0000e-004	2.3500e-003	1.0000e-005	7.5000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6035	0.6035	2.0000e-005	2.0000e-005	0.6089
Total	**2.6000e-004**	**2.0000e-004**	**2.3500e-003**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6035**	**0.6035**	**2.0000e-005**	**2.0000e-005**	**0.6089**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0111	0.0000	0.0111	5.3400e-003	0.0000	5.3400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7900e-003	0.0834	0.0611	1.2000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.4219	10.4219	3.3700e-003	0.0000	10.5062
Total	**7.7900e-003**	**0.0834**	**0.0611**	**1.2000e-004**	**0.0111**	**3.7600e-003**	**0.0148**	**5.3400e-003**	**3.4600e-003**	**8.8000e-003**	**0.0000**	**10.4219**	**10.4219**	**3.3700e-003**	**0.0000**	**10.5062**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	2.0000e-004	2.3500e-003	1.0000e-005	7.5000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6035	0.6035	2.0000e-005	2.0000e-005	0.6089
Total	**2.6000e-004**	**2.0000e-004**	**2.3500e-003**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6035**	**0.6035**	**2.0000e-005**	**2.0000e-005**	**0.6089**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1766	1.6162	1.6936	2.7900e-003		0.0837	0.0837		0.0788	0.0788	0.0000	239.8356	239.8356	0.0575	0.0000	241.2721
Total	**0.1766**	**1.6162**	**1.6936**	**2.7900e-003**		**0.0837**	**0.0837**		**0.0788**	**0.0788**	**0.0000**	**239.8356**	**239.8356**	**0.0575**	**0.0000**	**241.2721**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0100e-003	0.1179	0.0376	4.5000e-004	0.0137	1.3000e-003	0.0150	3.9600e-003	1.2400e-003	5.2100e-003	0.0000	42.6484	42.6484	2.7000e-004	6.2000e-003	44.5040
Worker	0.0250	0.0196	0.2268	6.4000e-004	0.0724	3.8000e-004	0.0728	0.0192	3.5000e-004	0.0196	0.0000	58.2952	58.2952	1.5400e-003	1.6300e-003	58.8185
Total	**0.0300**	**0.1375**	**0.2644**	**1.0900e-003**	**0.0861**	**1.6800e-003**	**0.0878**	**0.0232**	**1.5900e-003**	**0.0248**	**0.0000**	**100.9436**	**100.9436**	**1.8100e-003**	**7.8300e-003**	**103.3225**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1766	1.6162	1.6936	2.7900e-003		0.0837	0.0837		0.0788	0.0788	0.0000	239.8353	239.8353	0.0575	0.0000	241.2718
Total	**0.1766**	**1.6162**	**1.6936**	**2.7900e-003**		**0.0837**	**0.0837**		**0.0788**	**0.0788**	**0.0000**	**239.8353**	**239.8353**	**0.0575**	**0.0000**	**241.2718**

Sandridge Beef Plant - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0100e-003	0.1179	0.0376	4.5000e-004	0.0137	1.3000e-003	0.0150	3.9600e-003	1.2400e-003	5.2100e-003	0.0000	42.6484	42.6484	2.7000e-004	6.2000e-003	44.5040
Worker	0.0250	0.0196	0.2268	6.4000e-004	0.0724	3.8000e-004	0.0728	0.0192	3.5000e-004	0.0196	0.0000	58.2952	58.2952	1.5400e-003	1.6300e-003	58.8185
Total	**0.0300**	**0.1375**	**0.2644**	**1.0900e-003**	**0.0861**	**1.6800e-003**	**0.0878**	**0.0232**	**1.5900e-003**	**0.0248**	**0.0000**	**100.9436**	**100.9436**	**1.8100e-003**	**7.8300e-003**	**103.3225**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0181	0.1654	0.1868	3.1000e-004		8.0500e-003	8.0500e-003		7.5700e-003	7.5700e-003	0.0000	26.6576	26.6576	6.3400e-003	0.0000	26.8161
Total	**0.0181**	**0.1654**	**0.1868**	**3.1000e-004**		**8.0500e-003**	**8.0500e-003**		**7.5700e-003**	**7.5700e-003**	**0.0000**	**26.6576**	**26.6576**	**6.3400e-003**	**0.0000**	**26.8161**

Sandridge Beef Plant - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-004	0.0106	3.6300e-003	5.0000e-005	1.5200e-003	7.0000e-005	1.5900e-003	4.4000e-004	6.0000e-005	5.0000e-004	0.0000	4.5718	4.5718	2.0000e-005	6.6000e-004	4.7695
Worker	2.5500e-003	1.8900e-003	0.0229	7.0000e-005	8.0400e-003	4.0000e-005	8.0800e-003	2.1400e-003	4.0000e-005	2.1700e-003	0.0000	6.2689	6.2689	1.5000e-004	1.7000e-004	6.3220
Total	**2.8500e-003**	**0.0124**	**0.0265**	**1.2000e-004**	**9.5600e-003**	**1.1000e-004**	**9.6700e-003**	**2.5800e-003**	**1.0000e-004**	**2.6700e-003**	**0.0000**	**10.8407**	**10.8407**	**1.7000e-004**	**8.3000e-004**	**11.0914**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0181	0.1654	0.1868	3.1000e-004		8.0500e-003	8.0500e-003		7.5700e-003	7.5700e-003	0.0000	26.6575	26.6575	6.3400e-003	0.0000	26.8161
Total	**0.0181**	**0.1654**	**0.1868**	**3.1000e-004**		**8.0500e-003**	**8.0500e-003**		**7.5700e-003**	**7.5700e-003**	**0.0000**	**26.6575**	**26.6575**	**6.3400e-003**	**0.0000**	**26.8161**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-004	0.0106	3.6300e-003	5.0000e-005	1.5200e-003	7.0000e-005	1.5900e-003	4.4000e-004	6.0000e-005	5.0000e-004	0.0000	4.5718	4.5718	2.0000e-005	6.6000e-004	4.7695
Worker	2.5500e-003	1.8900e-003	0.0229	7.0000e-005	8.0400e-003	4.0000e-005	8.0800e-003	2.1400e-003	4.0000e-005	2.1700e-003	0.0000	6.2689	6.2689	1.5000e-004	1.7000e-004	6.3220
Total	**2.8500e-003**	**0.0124**	**0.0265**	**1.2000e-004**	**9.5600e-003**	**1.1000e-004**	**9.6700e-003**	**2.5800e-003**	**1.0000e-004**	**2.6700e-003**	**0.0000**	**10.8407**	**10.8407**	**1.7000e-004**	**8.3000e-004**	**11.0914**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.0791	0.1097	1.7000e-004		3.9200e-003	3.9200e-003		3.6200e-003	3.6200e-003	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565
Paving	1.8200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0101**	**0.0791**	**0.1097**	**1.7000e-004**		**3.9200e-003**	**3.9200e-003**		**3.6200e-003**	**3.6200e-003**	**0.0000**	**14.7407**	**14.7407**	**4.6300e-003**	**0.0000**	**14.8565**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	5.3000e-004	6.3900e-003	2.0000e-005	2.2500e-003	1.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.7522	1.7522	4.0000e-005	5.0000e-005	1.7670
Total	**7.1000e-004**	**5.3000e-004**	**6.3900e-003**	**2.0000e-005**	**2.2500e-003**	**1.0000e-005**	**2.2600e-003**	**6.0000e-004**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**1.7522**	**1.7522**	**4.0000e-005**	**5.0000e-005**	**1.7670**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.0791	0.1097	1.7000e-004		3.9200e-003	3.9200e-003		3.6200e-003	3.6200e-003	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565
Paving	1.8200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0101**	**0.0791**	**0.1097**	**1.7000e-004**		**3.9200e-003**	**3.9200e-003**		**3.6200e-003**	**3.6200e-003**	**0.0000**	**14.7407**	**14.7407**	**4.6300e-003**	**0.0000**	**14.8565**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	5.3000e-004	6.3900e-003	2.0000e-005	2.2500e-003	1.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.7522	1.7522	4.0000e-005	5.0000e-005	1.7670
Total	**7.1000e-004**	**5.3000e-004**	**6.3900e-003**	**2.0000e-005**	**2.2500e-003**	**1.0000e-005**	**2.2600e-003**	**6.0000e-004**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**1.7522**	**1.7522**	**4.0000e-005**	**5.0000e-005**	**1.7670**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5128					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0117	0.0163	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014
Total	**0.5145**	**0.0117**	**0.0163**	**3.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.4000e-004**	**0.0000**	**2.3014**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.9000e-004	3.5200e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9637	0.9637	2.0000e-005	3.0000e-005	0.9719
Total	**3.9000e-004**	**2.9000e-004**	**3.5200e-003**	**1.0000e-005**	**1.2400e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9637**	**0.9637**	**2.0000e-005**	**3.0000e-005**	**0.9719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5128					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0117	0.0163	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014
Total	**0.5145**	**0.0117**	**0.0163**	**3.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.4000e-004**	**0.0000**	**2.3014**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.9000e-004	3.5200e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9637	0.9637	2.0000e-005	3.0000e-005	0.9719
Total	**3.9000e-004**	**2.9000e-004**	**3.5200e-003**	**1.0000e-005**	**1.2400e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9637**	**0.9637**	**2.0000e-005**	**3.0000e-005**	**0.9719**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Implement Trip Reduction Program

Provide Riade Sharing Program

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0579	0.2199	0.5648	1.7700e-003	0.1332	2.2300e-003	0.1355	0.0359	2.1200e-003	0.0380	0.0000	165.4954	165.4954	6.2100e-003	0.0133	169.6265
Unmitigated	0.0579	0.2199	0.5648	1.7700e-003	0.1332	2.2300e-003	0.1355	0.0359	2.1200e-003	0.0380	0.0000	165.4954	165.4954	6.2100e-003	0.0133	169.6265

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	87.00	87.00	87.00	336,122	336,122
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	0.00	0.00	0.00		
Supermarket	9.84	9.84	9.84	10,724	10,724
Total	96.84	96.84	96.84	346,846	346,846

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3
Supermarket	14.70	6.60	6.60	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.414163	0.042290	0.139048	0.169158	0.077312	0.017122	0.020541	0.089733	0.000633	0.000190	0.024959	0.001183	0.003668
Parking Lot	0.414163	0.042290	0.139048	0.169158	0.077312	0.017122	0.020541	0.089733	0.000633	0.000190	0.024959	0.001183	0.003668
Refrigerated Warehouse-No Rail	0.414163	0.042290	0.139048	0.169158	0.077312	0.017122	0.020541	0.089733	0.000633	0.000190	0.024959	0.001183	0.003668
Supermarket	0.414163	0.042290	0.139048	0.169158	0.077312	0.017122	0.020541	0.089733	0.000633	0.000190	0.024959	0.001183	0.003668

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	78.5361	78.5361	0.0127	1.5400e-003	79.3127
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	78.5361	78.5361	0.0127	1.5400e-003	79.3127
NaturalGas Mitigated	7.0000e-003	0.0636	0.0535	3.8000e-004		4.8400e-003	4.8400e-003		4.8400e-003	4.8400e-003	0.0000	69.2658	69.2658	1.3300e-003	1.2700e-003	69.6774
NaturalGas Unmitigated	7.0000e-003	0.0636	0.0535	3.8000e-004		4.8400e-003	4.8400e-003		4.8400e-003	4.8400e-003	0.0000	69.2658	69.2658	1.3300e-003	1.2700e-003	69.6774

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	1.242e+006	6.7000e-003	0.0609	0.0511	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003	0.0000	66.2779	66.2779	1.2700e-003	1.2200e-003	66.6717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1500	1.0000e-005	7.0000e-005	6.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0801	0.0801	0.0000	0.0000	0.0805
Supermarket	54492	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.9079	2.9079	6.0000e-005	5.0000e-005	2.9252
Total		**7.0000e-003**	**0.0636**	**0.0534**	**3.9000e-004**		**4.8400e-003**	**4.8400e-003**		**4.8400e-003**	**4.8400e-003**	**0.0000**	**69.2658**	**69.2658**	**1.3300e-003**	**1.2700e-003**	**69.6774**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	1.242e+006	6.7000e-003	0.0609	0.0511	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003	0.0000	66.2779	66.2779	1.2700e-003	1.2200e-003	66.6717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1500	1.0000e-005	7.0000e-005	6.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0801	0.0801	0.0000	0.0000	0.0805
Supermarket	54492	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.9079	2.9079	6.0000e-005	5.0000e-005	2.9252
Total		**7.0000e-003**	**0.0636**	**0.0534**	**3.9000e-004**		**4.8400e-003**	**4.8400e-003**		**4.8400e-003**	**4.8400e-003**	**0.0000**	**69.2658**	**69.2658**	**1.3300e-003**	**1.2700e-003**	**69.6774**

Sandridge Beef Plant - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	516600	47.7978	7.7300e-003	9.4000e-004	48.2704
Parking Lot	21700	2.0078	3.2000e-004	4.0000e-005	2.0276
Refrigerated Warehouse-No Rail	248600	23.0014	3.7200e-003	4.5000e-004	23.2289
Supermarket	61921	5.7292	9.3000e-004	1.1000e-004	5.7858
Total		**78.5361**	**0.0127**	**1.5400e-003**	**79.3127**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	516600	47.7978	7.7300e-003	9.4000e-004	48.2704
Parking Lot	21700	2.0078	3.2000e-004	4.0000e-005	2.0276
Refrigerated Warehouse-No Rail	248600	23.0014	3.7200e-003	4.5000e-004	23.2289
Supermarket	61921	5.7292	9.3000e-004	1.1000e-004	5.7858
Total		**78.5361**	**0.0127**	**1.5400e-003**	**79.3127**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3363	2.0000e-005	2.0800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.3200e-003
Unmitigated	0.3363	2.0000e-005	2.0800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.3200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0513					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2848					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.3200e-003
Total	**0.3363**	**2.0000e-005**	**2.0800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.3200e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0513					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2848					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.3200e-003
Total	**0.3363**	**2.0000e-005**	**2.0800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.3200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.2238	0.4083	9.7400e-003	23.3345
Unmitigated	10.2238	0.4083	9.7400e-003	23.3345

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	12.5 / 0	10.2238	0.4083	9.7400e-003	23.3345
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Supermarket	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**10.2238**	**0.4083**	**9.7400e-003**	**23.3345**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	12.5 / 0	10.2238	0.4083	9.7400e-003	23.3345
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Supermarket	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**10.2238**	**0.4083**	**9.7400e-003**	**23.3345**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.1867	1.1339	0.0000	47.5343
Unmitigated	19.1867	1.1339	0.0000	47.5343

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	74.4	15.1025	0.8925	0.0000	37.4159
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	9.4	1.9081	0.1128	0.0000	4.7273
Supermarket	10.72	2.1761	0.1286	0.0000	5.3911
Total		**19.1867**	**1.1339**	**0.0000**	**47.5342**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	74.4	15.1025	0.8925	0.0000	37.4159
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	9.4	1.9081	0.1128	0.0000	4.7273
Supermarket	10.72	2.1761	0.1286	0.0000	5.3911
Total		**19.1867**	**1.1339**	**0.0000**	**47.5342**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number

11.0 Vegetation

Sandridge Beef Plant (2005 BAU) - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sandridge Beef Plant (2005 BAU)

Kings County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	60.00	1000sqft	1.38	60,000.00	0
Refrigerated Warehouse-No Rail	10.00	1000sqft	0.23	10,000.00	0
Parking Lot	185.00	Space	1.66	74,000.00	0
Supermarket	1.90	1000sqft	0.04	1,900.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	37
Climate Zone	3			**Operational Year**	2005
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	489	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.011

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity Factors for 2005 provided by PG&E and e ICLEI Local Government Operations Protocol

Land Use - Greater number of parking spaces needed under 2005 BAU to accomidate additional employee parking. Additional employees needed based on available technologies in 2005.

Construction Phase -

Vehicle Trips - See Trip Generation Estimates provided in Traffic Study. Increased number of employees needed for 2005 BAU based on available technologies.

Water And Wastewater - Project would use approximately 50,000 gal/day

Construction Off-road Equipment Mitigation -

Mobile Commute Mitigation -

Fleet Mix - Project Specific Fleet Mix Used. See Energy Calculations in Appendix.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CO2IntensityFactor	203.98	489
tblProjectCharacteristics	N2OIntensityFactor	0.004	0.011
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

Sandridge Beef Plant (2005 BAU) - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0807	0.7179	0.6524	1.2700e-003	0.1033	0.0365	0.1397	0.0459	0.0341	0.0800	0.0000	111.9215	111.9215	0.0218	2.3500e-003	113.1678
2022	0.7073	1.6010	1.8222	3.6000e-003	0.0834	0.0779	0.1613	0.0224	0.0733	0.0957	0.0000	317.3994	317.3994	0.0554	7.3400e-003	320.9721
Maximum	**0.7073**	**1.6010**	**1.8222**	**3.6000e-003**	**0.1033**	**0.0779**	**0.1613**	**0.0459**	**0.0733**	**0.0957**	**0.0000**	**317.3994**	**317.3994**	**0.0554**	**7.3400e-003**	**320.9721**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0807	0.7179	0.6524	1.2700e-003	0.1033	0.0365	0.1397	0.0459	0.0341	0.0800	0.0000	111.9214	111.9214	0.0218	2.3500e-003	113.1677
2022	0.7073	1.6010	1.8222	3.6000e-003	0.0834	0.0779	0.1613	0.0224	0.0733	0.0957	0.0000	317.3992	317.3992	0.0554	7.3400e-003	320.9719
Maximum	**0.7073**	**1.6010**	**1.8222**	**3.6000e-003**	**0.1033**	**0.0779**	**0.1613**	**0.0459**	**0.0733**	**0.0957**	**0.0000**	**317.3992**	**317.3992**	**0.0554**	**7.3400e-003**	**320.9719**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-30-2021**	**12-29-2021**	0.7807	0.7807
2	**12-30-2021**	**3-29-2022**	0.6172	0.6172
3	**3-30-2022**	**6-29-2022**	0.6261	0.6261
4	**6-30-2022**	**9-29-2022**	0.5562	0.5562
		Highest	0.7807	0.7807

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3708	4.0000e-005	3.0000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5900e-003	4.5900e-003	2.0000e-005	0.0000	5.1200e-003
Energy	7.0000e-003	0.0636	0.0535	3.8000e-004		4.8400e-003	4.8400e-003		4.8400e-003	4.8400e-003	0.0000	258.4715	258.4715	0.0141	5.5300e-003	260.4707
Mobile	0.9397	2.5917	10.2072	0.0174	0.5189	0.0557	0.5746	0.1390	0.0530	0.1920	0.0000	701.7227	701.7227	0.0973	0.0801	728.0278
Waste						0.0000	0.0000		0.0000	0.0000	19.1867	0.0000	19.1867	1.1339	0.0000	47.5343
Water						0.0000	0.0000		0.0000	0.0000	5.2099	19.7149	24.9247	0.5364	0.0131	42.2329
Total	**1.3175**	**2.6554**	**10.2636**	**0.0178**	**0.5189**	**0.0606**	**0.5795**	**0.1390**	**0.0579**	**0.1968**	**24.3966**	**979.9138**	**1,004.3103**	**1.7818**	**0.0987**	**1,078.2708**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3708	4.0000e-005	3.0000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5900e-003	4.5900e-003	2.0000e-005	0.0000	5.1200e-003
Energy	7.0000e-003	0.0636	0.0535	3.8000e-004		4.8400e-003	4.8400e-003		4.8400e-003	4.8400e-003	0.0000	258.4715	258.4715	0.0141	5.5300e-003	260.4707
Mobile	0.9397	2.5917	10.2072	0.0174	0.5189	0.0557	0.5746	0.1390	0.0530	0.1920	0.0000	701.7227	701.7227	0.0973	0.0801	728.0278
Waste						0.0000	0.0000		0.0000	0.0000	19.1867	0.0000	19.1867	1.1339	0.0000	47.5343
Water						0.0000	0.0000		0.0000	0.0000	5.2099	19.7149	24.9247	0.5364	0.0131	42.2329
Total	**1.3175**	**2.6554**	**10.2636**	**0.0178**	**0.5189**	**0.0606**	**0.5795**	**0.1390**	**0.0579**	**0.1968**	**24.3966**	**979.9138**	**1,004.3103**	**1.7818**	**0.0987**	**1,078.2708**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**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**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/30/2021	10/6/2021	5	5	
2	Grading	Grading	10/7/2021	10/18/2021	5	8	
3	Building Construction	Building Construction	10/19/2021	9/5/2022	5	230	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	9/6/2022	9/29/2022	5	18	
5	Architectural Coating	Architectural Coating	9/30/2022	10/25/2022	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 1.66

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 107,850; Non-Residential Outdoor: 35,950; Striped Parking Area: 4,440 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Sandridge Beef Plant (2005 BAU) - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	61.00	24.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	**9.7200e-003**	**0.1012**	**0.0529**	**1.0000e-004**	**0.0491**	**5.1100e-003**	**0.0543**	**0.0253**	**4.7000e-003**	**0.0300**	**0.0000**	**8.3589**	**8.3589**	**2.7000e-003**	**0.0000**	**8.4265**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.8000e-004	1.9500e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4672	0.4672	1.0000e-005	1.0000e-005	0.4717
Total	**2.1000e-004**	**1.8000e-004**	**1.9500e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4672**	**0.4672**	**1.0000e-005**	**1.0000e-005**	**0.4717**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	**9.7200e-003**	**0.1012**	**0.0529**	**1.0000e-004**	**0.0491**	**5.1100e-003**	**0.0543**	**0.0253**	**4.7000e-003**	**0.0300**	**0.0000**	**8.3589**	**8.3589**	**2.7000e-003**	**0.0000**	**8.4265**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.8000e-004	1.9500e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4672	0.4672	1.0000e-005	1.0000e-005	0.4717
Total	**2.1000e-004**	**1.8000e-004**	**1.9500e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4672**	**0.4672**	**1.0000e-005**	**1.0000e-005**	**0.4717**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1600e-003	0.0990	0.0634	1.2000e-004		4.6400e-003	4.6400e-003		4.2700e-003	4.2700e-003	0.0000	10.4215	10.4215	3.3700e-003	0.0000	10.5057
Total	**9.1600e-003**	**0.0990**	**0.0634**	**1.2000e-004**	**0.0283**	**4.6400e-003**	**0.0330**	**0.0137**	**4.2700e-003**	**0.0180**	**0.0000**	**10.4215**	**10.4215**	**3.3700e-003**	**0.0000**	**10.5057**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.3000e-004	2.6000e-003	1.0000e-005	7.5000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6229	0.6229	2.0000e-005	2.0000e-005	0.6289
Total	**2.8000e-004**	**2.3000e-004**	**2.6000e-003**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6229**	**0.6229**	**2.0000e-005**	**2.0000e-005**	**0.6289**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1600e-003	0.0990	0.0634	1.2000e-004		4.6400e-003	4.6400e-003		4.2700e-003	4.2700e-003	0.0000	10.4215	10.4215	3.3700e-003	0.0000	10.5057
Total	**9.1600e-003**	**0.0990**	**0.0634**	**1.2000e-004**	**0.0283**	**4.6400e-003**	**0.0330**	**0.0137**	**4.2700e-003**	**0.0180**	**0.0000**	**10.4215**	**10.4215**	**3.3700e-003**	**0.0000**	**10.5057**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.3000e-004	2.6000e-003	1.0000e-005	7.5000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6229	0.6229	2.0000e-005	2.0000e-005	0.6289
Total	**2.8000e-004**	**2.3000e-004**	**2.6000e-003**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6229**	**0.6229**	**2.0000e-005**	**2.0000e-005**	**0.6289**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0513	0.4707	0.4475	7.3000e-004		0.0259	0.0259		0.0243	0.0243	0.0000	62.5421	62.5421	0.0151	0.0000	62.9193
Total	**0.0513**	**0.4707**	**0.4475**	**7.3000e-004**		**0.0259**	**0.0259**		**0.0243**	**0.0243**	**0.0000**	**62.5421**	**62.5421**	**0.0151**	**0.0000**	**62.9193**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2700e-003	0.0402	0.0127	1.3000e-004	3.9000e-003	7.0000e-004	4.6000e-003	1.1300e-003	6.7000e-004	1.8000e-003	0.0000	12.4092	12.4092	1.1000e-004	1.8100e-003	12.9521
Worker	7.7600e-003	6.4100e-003	0.0713	1.9000e-004	0.0206	1.1000e-004	0.0207	5.4700e-003	1.1000e-004	5.5700e-003	0.0000	17.0997	17.0997	4.9000e-004	5.1000e-004	17.2636
Total	**0.0100**	**0.0466**	**0.0840**	**3.2000e-004**	**0.0245**	**8.1000e-004**	**0.0253**	**6.6000e-003**	**7.8000e-004**	**7.3700e-003**	**0.0000**	**29.5088**	**29.5088**	**6.0000e-004**	**2.3200e-003**	**30.2157**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0513	0.4707	0.4475	7.3000e-004		0.0259	0.0259		0.0243	0.0243	0.0000	62.5420	62.5420	0.0151	0.0000	62.9192
Total	**0.0513**	**0.4707**	**0.4475**	**7.3000e-004**		**0.0259**	**0.0259**		**0.0243**	**0.0243**	**0.0000**	**62.5420**	**62.5420**	**0.0151**	**0.0000**	**62.9192**

Sandridge Beef Plant (2005 BAU) - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2700e-003	0.0402	0.0127	1.3000e-004	3.9000e-003	7.0000e-004	4.6000e-003	1.1300e-003	6.7000e-004	1.8000e-003	0.0000	12.4092	12.4092	1.1000e-004	1.8100e-003	12.9521
Worker	7.7600e-003	6.4100e-003	0.0713	1.9000e-004	0.0206	1.1000e-004	0.0207	5.4700e-003	1.1000e-004	5.5700e-003	0.0000	17.0997	17.0997	4.9000e-004	5.1000e-004	17.2636
Total	**0.0100**	**0.0466**	**0.0840**	**3.2000e-004**	**0.0245**	**8.1000e-004**	**0.0253**	**6.6000e-003**	**7.8000e-004**	**7.3700e-003**	**0.0000**	**29.5088**	**29.5088**	**6.0000e-004**	**2.3200e-003**	**30.2157**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1502	1.3742	1.4400	2.3700e-003		0.0712	0.0712		0.0670	0.0670	0.0000	203.9182	203.9182	0.0489	0.0000	205.1395
Total	**0.1502**	**1.3742**	**1.4400**	**2.3700e-003**		**0.0712**	**0.0712**		**0.0670**	**0.0670**	**0.0000**	**203.9182**	**203.9182**	**0.0489**	**0.0000**	**205.1395**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6500e-003	0.1094	0.0349	4.1000e-004	0.0127	1.2100e-003	0.0139	3.6700e-003	1.1500e-003	4.8300e-003	0.0000	39.5579	39.5579	2.5000e-004	5.7600e-003	41.2791
Worker	0.0231	0.0181	0.2100	5.9000e-004	0.0671	3.5000e-004	0.0674	0.0178	3.2000e-004	0.0181	0.0000	53.9905	53.9905	1.4300e-003	1.5100e-003	54.4751
Total	**0.0278**	**0.1275**	**0.2449**	**1.0000e-003**	**0.0798**	**1.5600e-003**	**0.0813**	**0.0215**	**1.4700e-003**	**0.0230**	**0.0000**	**93.5484**	**93.5484**	**1.6800e-003**	**7.2700e-003**	**95.7542**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1502	1.3742	1.4400	2.3700e-003		0.0712	0.0712		0.0670	0.0670	0.0000	203.9180	203.9180	0.0489	0.0000	205.1393
Total	**0.1502**	**1.3742**	**1.4400**	**2.3700e-003**		**0.0712**	**0.0712**		**0.0670**	**0.0670**	**0.0000**	**203.9180**	**203.9180**	**0.0489**	**0.0000**	**205.1393**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6500e-003	0.1094	0.0349	4.1000e-004	0.0127	1.2100e-003	0.0139	3.6700e-003	1.1500e-003	4.8300e-003	0.0000	39.5579	39.5579	2.5000e-004	5.7600e-003	41.2791
Worker	0.0231	0.0181	0.2100	5.9000e-004	0.0671	3.5000e-004	0.0674	0.0178	3.2000e-004	0.0181	0.0000	53.9905	53.9905	1.4300e-003	1.5100e-003	54.4751
Total	**0.0278**	**0.1275**	**0.2449**	**1.0000e-003**	**0.0798**	**1.5600e-003**	**0.0813**	**0.0215**	**1.4700e-003**	**0.0230**	**0.0000**	**93.5484**	**93.5484**	**1.6800e-003**	**7.2700e-003**	**95.7542**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.7900e-003	0.0857	0.1098	1.7000e-004		4.3900e-003	4.3900e-003		4.0500e-003	4.0500e-003	0.0000	14.7383	14.7383	4.6300e-003	0.0000	14.8540
Paving	2.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0110**	**0.0857**	**0.1098**	**1.7000e-004**		**4.3900e-003**	**4.3900e-003**		**4.0500e-003**	**4.0500e-003**	**0.0000**	**14.7383**	**14.7383**	**4.6300e-003**	**0.0000**	**14.8540**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	6.1000e-004	7.0400e-003	2.0000e-005	2.2500e-003	1.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.8104	1.8104	5.0000e-005	5.0000e-005	1.8267
Total	**7.8000e-004**	**6.1000e-004**	**7.0400e-003**	**2.0000e-005**	**2.2500e-003**	**1.0000e-005**	**2.2600e-003**	**6.0000e-004**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**1.8104**	**1.8104**	**5.0000e-005**	**5.0000e-005**	**1.8267**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.7900e-003	0.0857	0.1098	1.7000e-004		4.3900e-003	4.3900e-003		4.0500e-003	4.0500e-003	0.0000	14.7383	14.7383	4.6300e-003	0.0000	14.8540
Paving	2.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0110**	**0.0857**	**0.1098**	**1.7000e-004**		**4.3900e-003**	**4.3900e-003**		**4.0500e-003**	**4.0500e-003**	**0.0000**	**14.7383**	**14.7383**	**4.6300e-003**	**0.0000**	**14.8540**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	6.1000e-004	7.0400e-003	2.0000e-005	2.2500e-003	1.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.8104	1.8104	5.0000e-005	5.0000e-005	1.8267
Total	**7.8000e-004**	**6.1000e-004**	**7.0400e-003**	**2.0000e-005**	**2.2500e-003**	**1.0000e-005**	**2.2600e-003**	**6.0000e-004**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**1.8104**	**1.8104**	**5.0000e-005**	**5.0000e-005**	**1.8267**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5153					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
Total	**0.5172**	**0.0127**	**0.0163**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.5000e-004**	**0.0000**	**2.3017**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.6000e-004	4.2300e-003	1.0000e-005	1.3500e-003	1.0000e-005	1.3600e-003	3.6000e-004	1.0000e-005	3.6000e-004	0.0000	1.0863	1.0863	3.0000e-005	3.0000e-005	1.0960
Total	**4.7000e-004**	**3.6000e-004**	**4.2300e-003**	**1.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.0863**	**1.0863**	**3.0000e-005**	**3.0000e-005**	**1.0960**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5153					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
Total	**0.5172**	**0.0127**	**0.0163**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.5000e-004**	**0.0000**	**2.3017**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.6000e-004	4.2300e-003	1.0000e-005	1.3500e-003	1.0000e-005	1.3600e-003	3.6000e-004	1.0000e-005	3.6000e-004	0.0000	1.0863	1.0863	3.0000e-005	3.0000e-005	1.0960
Total	**4.7000e-004**	**3.6000e-004**	**4.2300e-003**	**1.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.0863**	**1.0863**	**3.0000e-005**	**3.0000e-005**	**1.0960**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Sandridge Beef Plant (2005 BAU) - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9397	2.5917	10.2072	0.0174	0.5189	0.0557	0.5746	0.1390	0.0530	0.1920	0.0000	701.7227	701.7227	0.0973	0.0801	728.0278
Unmitigated	0.9397	2.5917	10.2072	0.0174	0.5189	0.0557	0.5746	0.1390	0.0530	0.1920	0.0000	701.7227	701.7227	0.0973	0.0801	728.0278

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	235.80	385.20	305.40	1,031,877	1,031,877
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	21.20	21.20	21.20	81,905	81,905
Supermarket	202.88	337.48	316.29	259,672	259,672
Total	459.88	743.88	642.89	1,373,454	1,373,454

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3
Supermarket	14.70	6.60	6.60	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.469644	0.076968	0.160836	0.173619	0.042235	0.005594	0.011165	0.028022	0.000693	0.000053	0.021206	0.001062	0.008904
Parking Lot	0.469644	0.076968	0.160836	0.173619	0.042235	0.005594	0.011165	0.028022	0.000693	0.000053	0.021206	0.001062	0.008904
Refrigerated Warehouse-No Rail	0.469644	0.076968	0.160836	0.173619	0.042235	0.005594	0.011165	0.028022	0.000693	0.000053	0.021206	0.001062	0.008904
Supermarket	0.469644	0.076968	0.160836	0.173619	0.042235	0.005594	0.011165	0.028022	0.000693	0.000053	0.021206	0.001062	0.008904

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	189.2058	189.2058	0.0128	4.2600e-003	190.7933
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	189.2058	189.2058	0.0128	4.2600e-003	190.7933
NaturalGas Mitigated	7.0000e-003	0.0636	0.0535	3.8000e-004		4.8400e-003	4.8400e-003		4.8400e-003	4.8400e-003	0.0000	69.2658	69.2658	1.3300e-003	1.2700e-003	69.6774
NaturalGas Unmitigated	7.0000e-003	0.0636	0.0535	3.8000e-004		4.8400e-003	4.8400e-003		4.8400e-003	4.8400e-003	0.0000	69.2658	69.2658	1.3300e-003	1.2700e-003	69.6774

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	1.242e+006	6.7000e-003	0.0609	0.0511	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003	0.0000	66.2779	66.2779	1.2700e-003	1.2200e-003	66.6717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1500	1.0000e-005	7.0000e-005	6.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0801	0.0801	0.0000	0.0000	0.0805
Supermarket	54492	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.9079	2.9079	6.0000e-005	5.0000e-005	2.9252
Total		**7.0000e-003**	**0.0636**	**0.0534**	**3.9000e-004**		**4.8400e-003**	**4.8400e-003**		**4.8400e-003**	**4.8400e-003**	**0.0000**	**69.2658**	**69.2658**	**1.3300e-003**	**1.2700e-003**	**69.6774**

Sandridge Beef Plant (2005 BAU) - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	1.242e+006	6.7000e-003	0.0609	0.0511	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003	0.0000	66.2779	66.2779	1.2700e-003	1.2200e-003	66.6717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1500	1.0000e-005	7.0000e-005	6.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0801	0.0801	0.0000	0.0000	0.0805
Supermarket	54492	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.9079	2.9079	6.0000e-005	5.0000e-005	2.9252
Total		**7.0000e-003**	**0.0636**	**0.0534**	**3.9000e-004**		**4.8400e-003**	**4.8400e-003**		**4.8400e-003**	**4.8400e-003**	**0.0000**	**69.2658**	**69.2658**	**1.3300e-003**	**1.2700e-003**	**69.6774**

Sandridge Beef Plant (2005 BAU) - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	516600	114.5853	7.7300e-003	2.5800e-003	115.5468
Parking Lot	25900	5.7448	3.9000e-004	1.3000e-004	5.7930
Refrigerated Warehouse-No Rail	248600	55.1411	3.7200e-003	1.2400e-003	55.6038
Supermarket	61921	13.7345	9.3000e-004	3.1000e-004	13.8497
Total		**189.2058**	**0.0128**	**4.2600e-003**	**190.7933**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	516600	114.5853	7.7300e-003	2.5800e-003	115.5468
Parking Lot	25900	5.7448	3.9000e-004	1.3000e-004	5.7930
Refrigerated Warehouse-No Rail	248600	55.1411	3.7200e-003	1.2400e-003	55.6038
Supermarket	61921	13.7345	9.3000e-004	3.1000e-004	13.8497
Total		**189.2058**	**0.0128**	**4.2600e-003**	**190.7933**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3708	4.0000e-005	3.0000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5900e-003	4.5900e-003	2.0000e-005	0.0000	5.1200e-003
Unmitigated	0.3708	4.0000e-005	3.0000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5900e-003	4.5900e-003	2.0000e-005	0.0000	5.1200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0849					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.9000e-004	4.0000e-005	3.0000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5900e-003	4.5900e-003	2.0000e-005	0.0000	5.1200e-003
Total	**0.3708**	**4.0000e-005**	**3.0000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.5900e-003**	**4.5900e-003**	**2.0000e-005**	**0.0000**	**5.1200e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0849					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.9000e-004	4.0000e-005	3.0000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5900e-003	4.5900e-003	2.0000e-005	0.0000	5.1200e-003
Total	**0.3708**	**4.0000e-005**	**3.0000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.5900e-003**	**4.5900e-003**	**2.0000e-005**	**0.0000**	**5.1200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	24.9247	0.5364	0.0131	42.2329
Unmitigated	24.9247	0.5364	0.0131	42.2329

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	13.875 / 0	21.0546	0.4532	0.0111	35.6786
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2.3125 / 0	3.5091	0.0755	1.8400e-003	5.9464
Supermarket	0.23421 / 0.0072436	0.3610	7.6500e-003	1.9000e-004	0.6079
Total		**24.9247**	**0.5364**	**0.0131**	**42.2329**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	13.875 / 0	21.0546	0.4532	0.0111	35.6786
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2.3125 / 0	3.5091	0.0755	1.8400e-003	5.9464
Supermarket	0.23421 / 0.0072436	0.3610	7.6500e-003	1.9000e-004	0.6079
Total		**24.9247**	**0.5364**	**0.0131**	**42.2329**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.1867	1.1339	0.0000	47.5343
Unmitigated	19.1867	1.1339	0.0000	47.5343

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	74.4	15.1025	0.8925	0.0000	37.4159
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	9.4	1.9081	0.1128	0.0000	4.7273
Supermarket	10.72	2.1761	0.1286	0.0000	5.3911
Total		**19.1867**	**1.1339**	**0.0000**	**47.5342**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	74.4	15.1025	0.8925	0.0000	37.4159
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	9.4	1.9081	0.1128	0.0000	4.7273
Supermarket	10.72	2.1761	0.1286	0.0000	5.3911
Total		**19.1867**	**1.1339**	**0.0000**	**47.5342**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number

11.0 Vegetation

Appendix B

Biological Evaluation

LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

SANDRIDGE CATTLE FEEDLOT AND HARVEST PLANT PROJECT
BIOLOGICAL EVALUATION
KINGS COUNTY, CALIFORNIA

Prepared by

LIVE OAK ASSOCIATES, INC.

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Jeff Gurule, Senior Project Manager

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EXECUTIVE SUMMARY

Pursuant to Policy DE 3.3a of the Dairy Element of the Kings County General Plan (Dairy Element) and the California Environmental Quality Act (CEQA), Live Oak Associates, Inc. (LOA) investigated the biological resources of an approximately 457-acre area in Kern County ("project site") that may be disturbed by proposed development of the Sandridge Cattle Feedlot and Harvest Plant ("project") and evaluated potential impacts to those resources associated with project development. The proposed project entails construction of open lot corrals, a slaughterhouse/beef plant, barns, processing facility, concrete pads, a workshop, and wastewater retention ponds.

On September 15, 2021, LOA ecologist Jeff Gurule surveyed the project site for its biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law. At the time of the field survey, the project site consisted of agricultural fields and irrigation ditches. Lands within the vicinity of the project site are utilized primarily for agricultural purposes. A few small areas of undeveloped land are situated immediately southeast of the project site across Jackson Road and State Route 41.

Historic and current farming of the project site have created habitat conditions that are unsuitable for most native plants and wildlife. However, the project has the potential to result in construction-related mortality or disturbance to some native nesting birds that include the California threatened Swainson's hawk and tricolored blackbird, as well as the burrowing owl and northern harrier that are California Species of Special Concern. These birds are protected under the California Endangered Species Act, Federal Migratory Bird Treaty Act, California Migratory Bird Protection Act, and California Fish and Game Code. These potential impacts would be considered significant under CEQA and could be a violation of state and federal laws. Project construction outside the nesting season and avoidance of active nests identified during preconstruction surveys will reduce the magnitude of potential impacts to nesting birds to a less than significant level.

No other biological resources would be significantly affected by the project. The project will have no effect on all locally occurring special status plant species, an insignificant effect, or no effect, on 15 locally occurring special status animal species, and no effect on sensitive natural communities, wildlife movement corridors, and waters of the U.S. or California. While potential impacts to onsite irrigation ditches are considered less then significant under CEQA, such impacts may require a permit from the Regional Water Quality Control Board, as this agency required permitting for impacts to a similar ditch in the project vicinity for another project. The project also appears to be consistent with local plans and ordinances. No Habitat Conservation Plans or Natural Community Conservation Plans are known to apply to the project.

TABLE OF CONTENTS

1.0 INTRODUCTION

Live Oak Associates, Inc. (LOA) has prepared the following technical report that describes the biotic resources of an approximately 457-acre area of agricultural land in Kings County, California ("site" or "project site") and evaluates possible impacts to sensitive or protected biological resources associated with the proposed development of the Sandridge Cattle Feedlot and Harvest Plant ("project'). The project site is located in northern Kings County northwest of State Route (SR) 41 and Jackson Avenue, approximately one mile south of the City of Lemoore (Figure 1). The project site may be found on the Lemoore U.S. Geological Survey (USGS) 7.5-minute quadrangle; Sections 16, 20, and 21, Township 19 South, Range 20 East (Mt. Diablo Base and Meridian) (Figure 2).

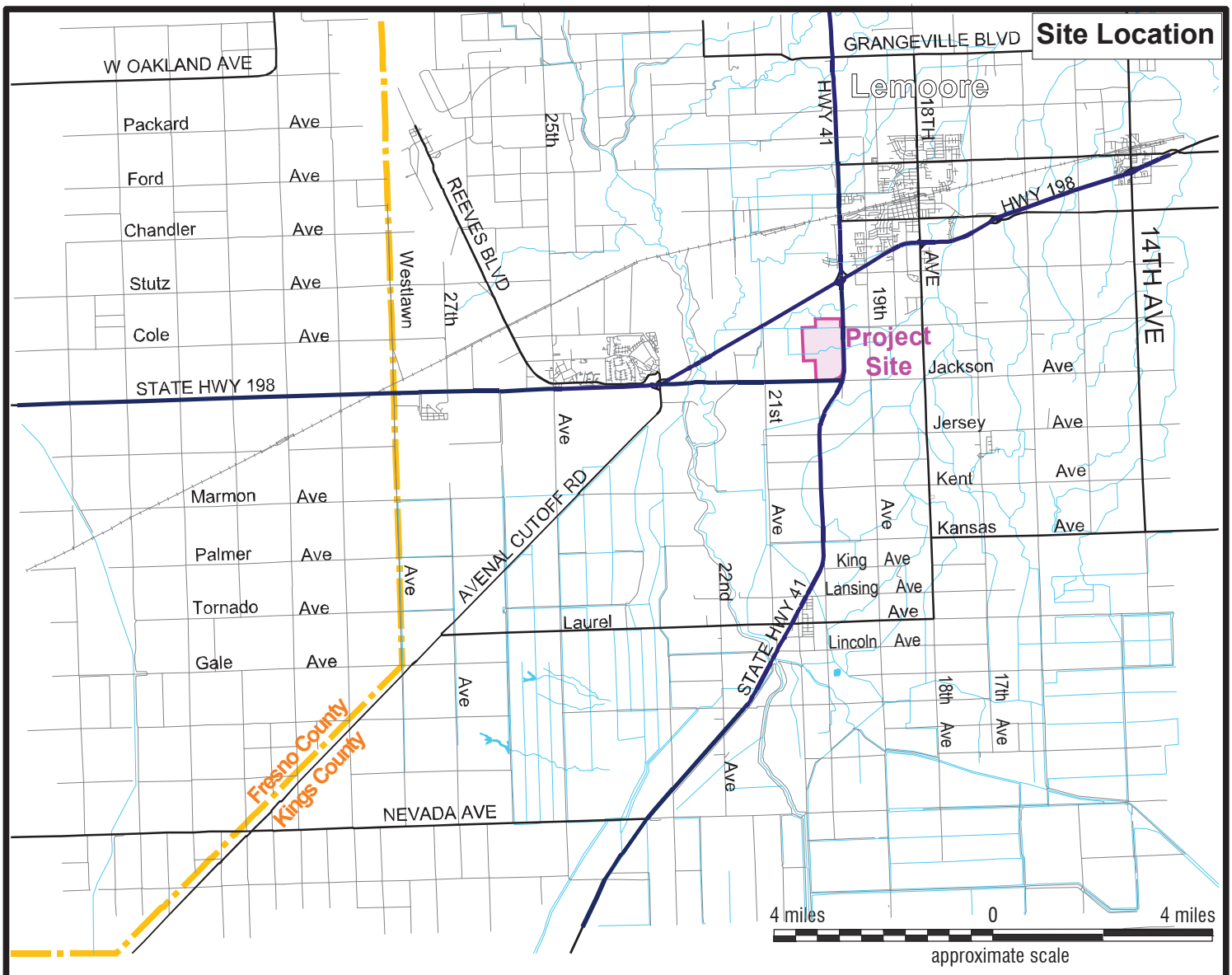
1.1 PROJECT DESCRIPTION

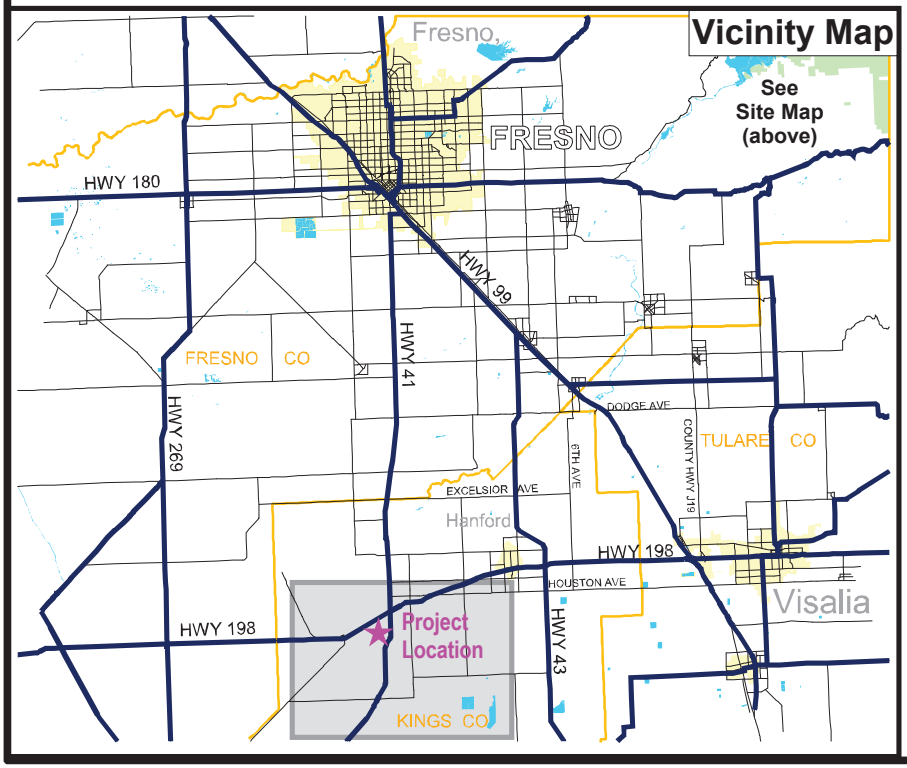
The proposed project is the construction of a new cattle feedlot and harvest facility that will include open lot corrals, a slaughterhouse/beef plant, barns, processing facility, concrete pads, a workshop, and wastewater retention ponds (Figure 3).

1.2 REPORT OBJECTIVES

Development of agricultural areas has the potential to damage or modify biotic habitats used by sensitive plant and wildlife species. In such cases, site development may be regulated by state or federal agencies, and/or covered by local policies and ordinances. Specifically, this investigation and report were completed in compliance with Policy DE 3.3a of the Dairy Element of the Kings County General Plan (Dairy Element) and the California Environmental Quality Act (CEQA). As such, the objectives of this report are to summarize all site-specific information related to existing biological resources and, if necessary, identify appropriate avoidance and mitigation measures that would reduce impacts to potentially affected biological resources. As such, 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 site based on habitat suitability and the proximity of the site to a species' known range.



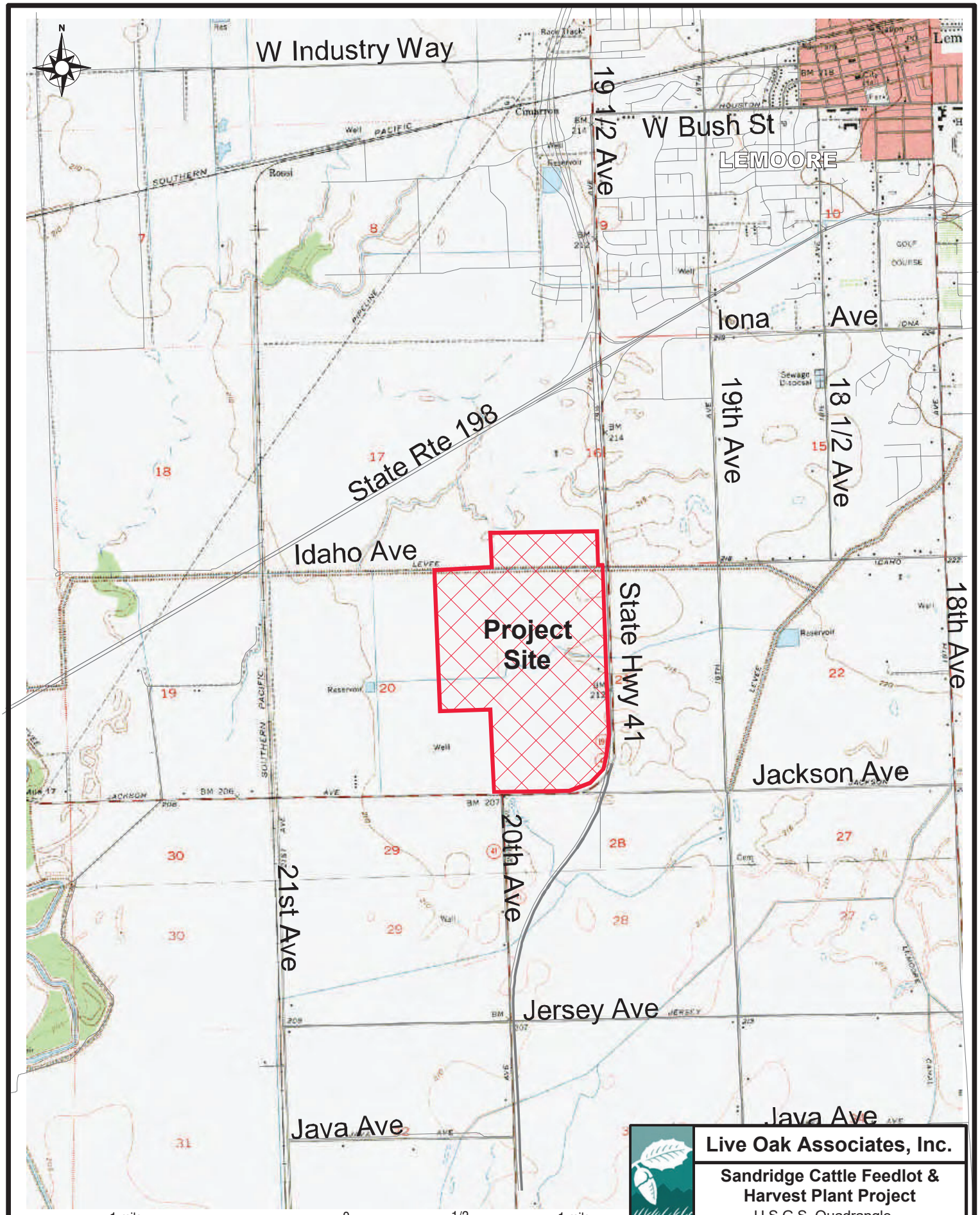


Live Oak Associates, Inc.

Sandridge Cattle Feedlot & Harvest Plant Project

Site / Vicinity Map

Date	Project #	Figure #
9/28/2021	2616-01	1



From USGS
Lemoore 7.5' Quadrangle 1954
Stratford 7.5' Quadrangle 1954

Live Oak Associates, Inc.

Sandridge Cattle Feedlot & Harvest Plant Project

U.S.G.S. Quadrangle

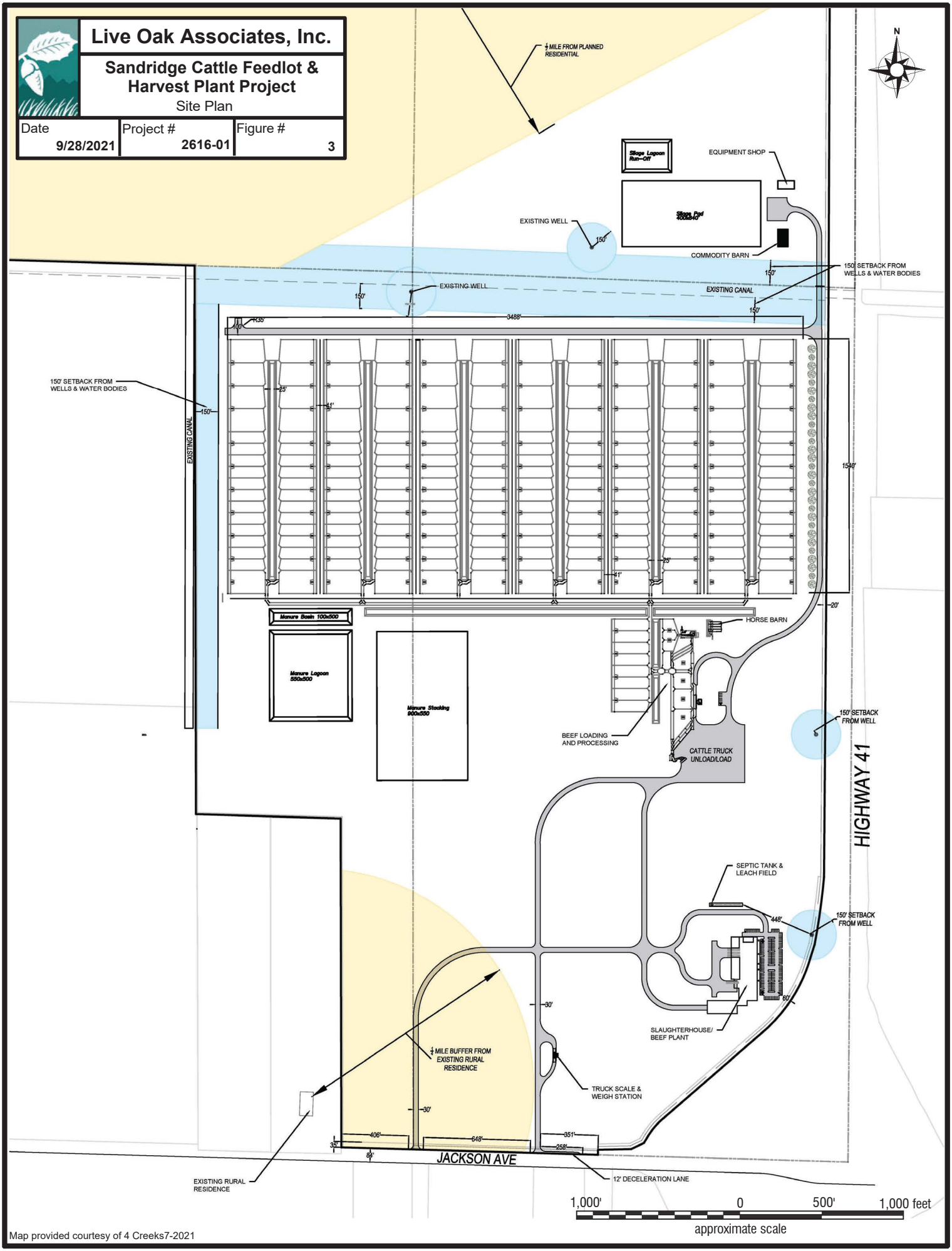
Date	Project #	Figure #
9/28/2021	2616-01	2

Live Oak Associates, Inc.

Sandridge Cattle Feedlot & Harvest Plant Project

Site Plan

Date	Project #	Figure #
9/28/2021	2616-01	3



Map provided courtesy of 4 Creeks7-2021

- Summarize all state and federal natural resource protection laws that may be relevant to future site development.

- Identify and discuss project impacts to biological resources likely to occur on the site within the context of the Dairy Element, CEQA, and state or federal laws.

- Identify avoidance, minimization, and/or mitigation measures that would reduce the magnitude of project impacts in a manner consistent with the requirements of the Dairy Element and CEQA and that are generally consistent with the requirements of the resource agencies regulating affected biological resources.

1.3 STUDY METHODOLOGY

The analysis of impacts, as discussed in Section 3.0 of this report, is based on the known and potential biotic resources of the project site discussed in Section 2.0. Sources of information used in the preparation of this analysis included: (1) the *California Natural Diversity Data Base* (CDFW 2021), (2) the *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2021), and (3) manuals, reports, and references related to plants and animals of the San Joaquin Valley region. A reconnaissance-level field survey of the project site was conducted on September 15, 2021 by LOA biologist Jeff Gurule. This survey consisted of a visual inspection of the site and immediately surrounding lands. The site was driven and walked in order to assure full visual coverage. During the field visit the principal land uses of the site were identified and the constituent plants and animals of each were noted. The field survey conducted for this study was sufficient to assess the significance of possible biological impacts associated with project development and to assess the need for more detailed studies that could be warranted if potentially sensitive biotic resources were identified in this initial survey.

2.0 EXISTING CONDITIONS

The project site consists of agricultural fields and irrigation ditches. The site has been utilized for agricultural purposes since at least 1994. Immediately surrounding lands consist of agricultural fields, the SR 41 corridor, orchards, rural residential, commercial, and patches of natural lands. Topographically, the site is relatively level with a mean elevation of approximately 195 ft. National Geodetic Vertical Datum (NGVD).

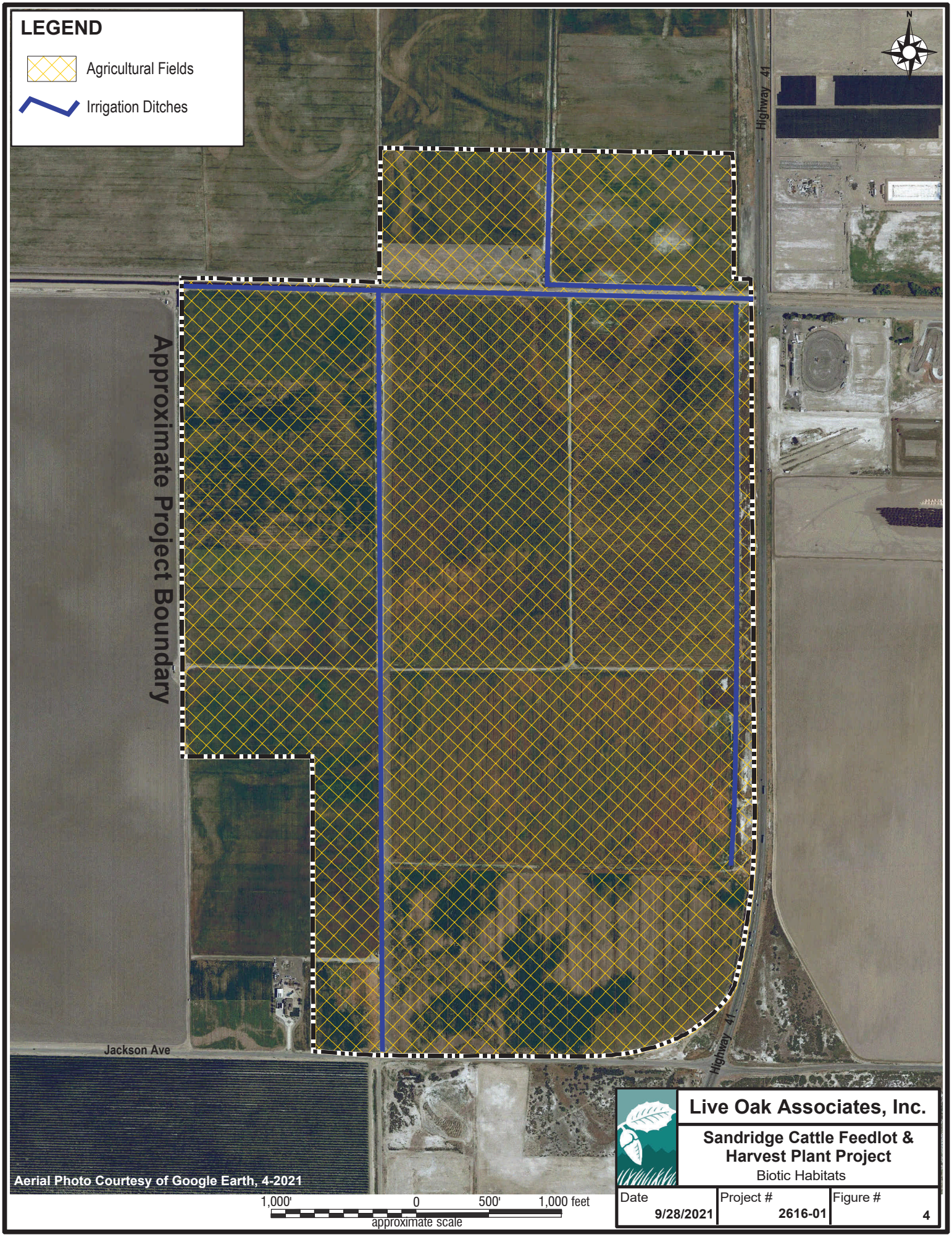
The project site experiences a Mediterranean climate where warm dry summers are followed by cool moist winters. Summer temperatures commonly exceed 100 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely rise much above 70 degrees Fahrenheit. Annual precipitation within the project site is about 9 inches, almost 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain. Storm water readily infiltrates the soils.

Aquatic features in the near vicinity of the site include the Kings River approximately 2 miles to the west and various irrigation ditches and canals.

Five soil mapping units were identified within the project site (NRCS 2021). These consist of 137: Lemoore sandy loam, partially drained; 119: Grangeville sandy loam, saline-alkali; 118: Goldberg loam, partially drained; 134: Lakeside loam, partially drained; and 103: Boggs sandy loam, partially drained. Soils of the project site have been substantially altered by regular agricultural use of the land in the form of grading, discing, addition of soil amendment, and crop production. As a result, the soils of the site no longer maintain their native soil characteristics and would, therefore, have no particular significance to biological resources of the site.

2.1 BIOTIC HABITATS/LAND USES

Natural biotic habitats are absent from the project site due to decades of agricultural use of the site. The land use of the site can be characterized as agricultural fields and irrigation ditches (Figure 4). A list of the vascular plant species observed within the project site and the terrestrial vertebrates using, or potentially using, the site are provided in Appendices A and B, respectively. Representative photos of the site are presented in Appendix C.



Live Oak Associates, Inc.

Sandridge Cattle Feedlot & Harvest Plant Project

Biotic Habitats

Date	Project #	Figure #
9/28/2021	2616-01	4

2.1.1 Agricultural Field

At the time of the field investigation, the entire project site was highly disturbed from agricultural operations and consisted of hay fields in various stages of harvest, and fallow fields with evidence of past crops such as corn, alfalfa, and wheat. Aside from the crop species listed above, dominant vegetation associated with these fields (mostly the fallow fields), included common agricultural weeds such as Johnsongrass (*Sorghum halepense*), littleseed canarygrass (*Phalaris minor*), prostrate knotweed (*Polygonum aviculare*), prickly lettuce (*Lactuca serriola*), bractscale (*Atriplex serenana var. serenana*), London rocket (*Sisymbrium irio*), and fiddleneck (*Amsinckia sp.*).

As a result of regular agricultural use, the site provides only marginal habitat for most native wildlife. The project site provides limited habitat for reptiles and amphibians. Sierran treefrogs (*Pseudacris sierra*) may breed and forage in adjacent irrigation ditches and disperse through the site. Reptile species that may forage on the site include the side-blotched lizard (*Uta stansburiana*) and snakes such as the gopher snake (*Pituophis melanoleucus*) and common kingsnake *(Lampropeltis getulus*). However, no reptile species were observed during the site survey and it is expected that should any of the above reptiles occur on the site, their numbers would be low and/or would occur there simply as transients.

The site provides foraging habitat for a number of avian species. Avian species observed on the site during the field investigation include the killdeer (*Charadrius vociferus*), turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), western meadowlark (*Sturnella neglecta*), loggerhead shrike (*Lanius ludovicianus*), and savannah sparrow (*Passerculus sandwichensis*). Other avian species expected to utilize the site include the Swainson's hawk (*Buteo swainsoni*), American crow (*Corvus brachyrhynchos*), Brewer's blackbird (*Euphagus cyanocephalus*), mourning dove (*Zenaida macroura*), American pipet (*Anthus rubescens*), Say's phoebe (Sayornis saya), and horned lark (*Eremophila alpestris*).

Evidence of small mammal use of the site observed in this area of the site was limited to Botta'a pocket gopher (*Thomomys bottae*) mounds. Nonetheless, small mammal species such as California ground squirrel (*Otospermophilus beecheyi*), deer mouse (*Peromyscus maniculatus*),

California vole (*Microtus californicus*), and desert cottontail (*Sylvilagus audubonii*) may also occur here. Various species of bat may also forage over the site for flying insects. Predatory mammals such as raccoons (*Procyon lotor*), striped skunks (*Mephitis mephitis*), and coyotes (*Canis latrans*) may occasionally occur on the site as well.

2.1.2 Irrigation Ditch

Several irrigation ditches traverse the project site. The irrigation ditch at the western side of the site was inundated during the field investigation; all other ditches were dry. Vegetation within the ditches was varied. Some ditches were sparsely vegetated and others well vegetated. Vegetation, where present in and along the ditches, consisted of agricultural weeds such as bractscale, western sea purslane (*Sesuvium varricosum*), spreading alkali weed (*Cressa truxillensis*), saltgrass (*Distichlis spicata*), sprangletop (*Leptochloa fusca*), barnyard grass (*Echinochloa crus-galli*), curly dock (*Rumex crispus*), and Jersey cudweed (*Pseudognaphalium luteoalbum*).

Amphibians such as the Sierran treefrog could find breeding opportunity in the site's ditch habitat when water is present. When dry, the irrigation ditches could be used by the reptile species expected in the agricultural fields. Birds expected to utilize the ditches of the project site would include the species discussed for the site's agricultural fields, as well as the black phoebe (*Sayornis nigricans*), great blue heron (*Ardea herodias*), and great egret (*Ardea alba*), assuming amphibian and/or invertebrate prey is present.

The banks of the site's irrigation ditches provide habitat for burrowing rodents such as the California ground squirrel. At the time of the field survey, California ground squirrel burrows were observed on the inner banks of the east-west ditch at the northern end of the site. During dry periods, small mammals and mammalian predators likely to forage or seek cover in the ditches would be similar to those expected in the agricultural fields of the site.

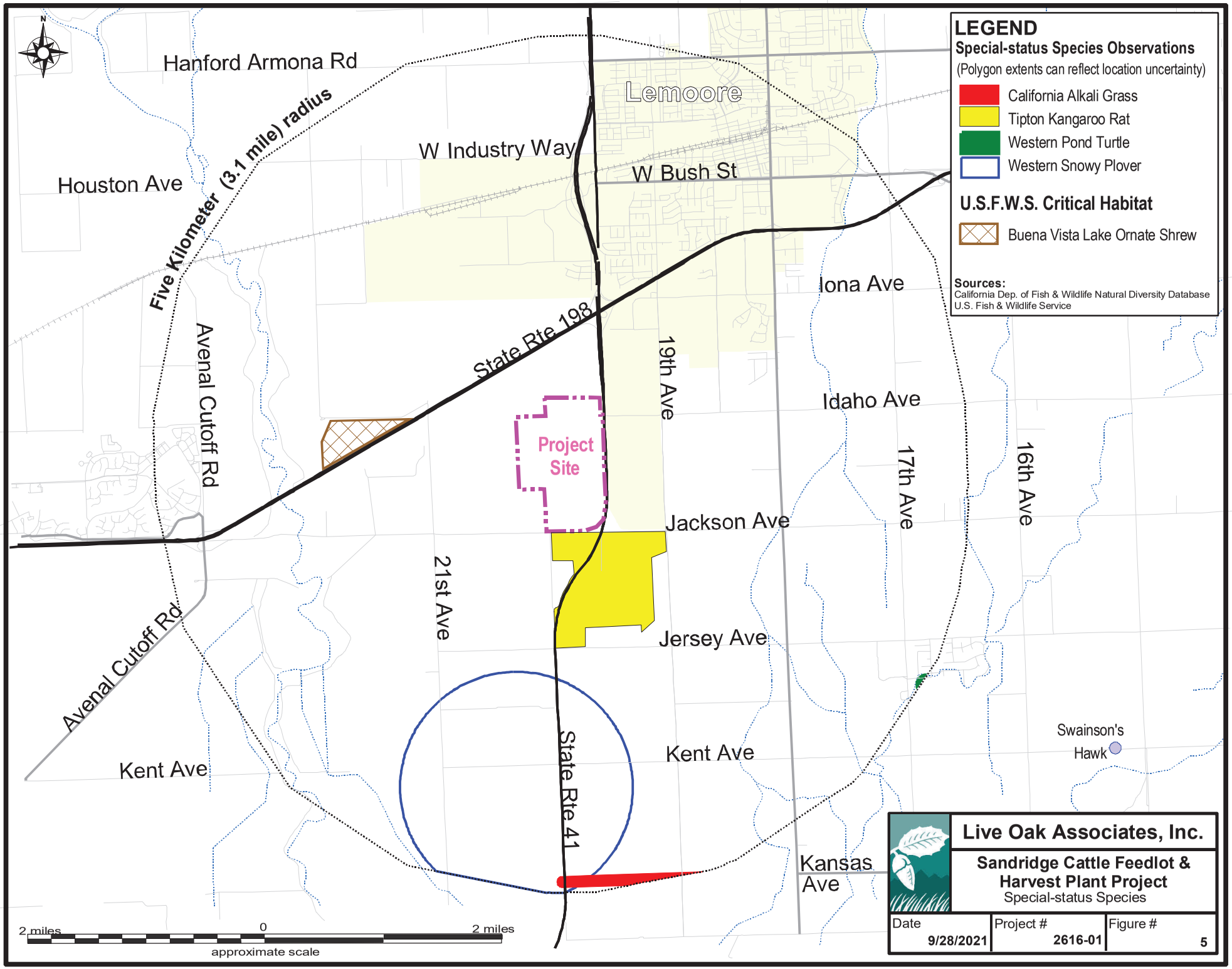
2.2 SPECIAL STATUS PLANTS AND ANIMALS

Many species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered "rare" and are vulnerable to extirpation as

the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided CDFW and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as "threatened" or "endangered" under state and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as "species of special concern" by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists (i.e., California Rare Plant Ranks, or CRPR) of native plants considered rare, threatened, or endangered (CNPS 2021). Collectively, these plants and animals are referred to as "special status species."

The California Natural Diversity Data Base (CDFW 2021) was queried for special status species occurrences in the nine USGS 7.5-minute quadrangles containing and immediately surrounding the project site (*Lemoore, Hanford, Riverdale, Laton, Burrel, Westhaven, Guernsey, Stratford, and Vanguard*). These species, and their potential to occur on the project site, are listed in Table 1 on the following pages. Sources of information for this table included *California's Wildlife, Volumes I, II, and III* (Zeiner et. al 1988-1990), *California Natural Diversity Data Base* (CDFW 2021), *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al 2012), and *The California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2021), Calflora.org, and eBird.org.

Special status species occurrences within 3.1 miles of the project site are depicted in Figure 5 and San Joaquin kit fox occurrences within a 10-mile radius of the site are presented in Figure 6.


Hanford Armona Rd
Lemoore
W Industry Way
W Bush St
Houston Ave
Five Kilometer (3.1 mile) radius
Iona Ave
State Rte 198
Avenal Cutoff Rd
19th Ave
Idaho Ave
17th Ave
16th Ave
Project Site
Jackson Ave
21st Ave
Jersey Ave
Avenal Cutoff Rd
Kent Ave
State Rte 41
Kent Ave
Swainson's Hawk
Kansas Ave
2 miles
0
2 miles
approximate scale
LEGEND
Special-status Species Observations
(Polygon extents can reflect location uncertainty)
California Alkali Grass
Tipton Kangaroo Rat
Western Pond Turtle
Western Snowy Plover
U.S.F.W.S. Critical Habitat
Buena Vista Lake Ornate Shrew
Sources:
California Dep. of Fish & Wildlife Natural Diversity Database
U.S. Fish & Wildlife Service
Live Oak Associates, Inc.
Sandridge Cattle Feedlot & Harvest Plant Project
Special-status Species
Date 9/28/2021
Project # 2616-01
Figure # 5

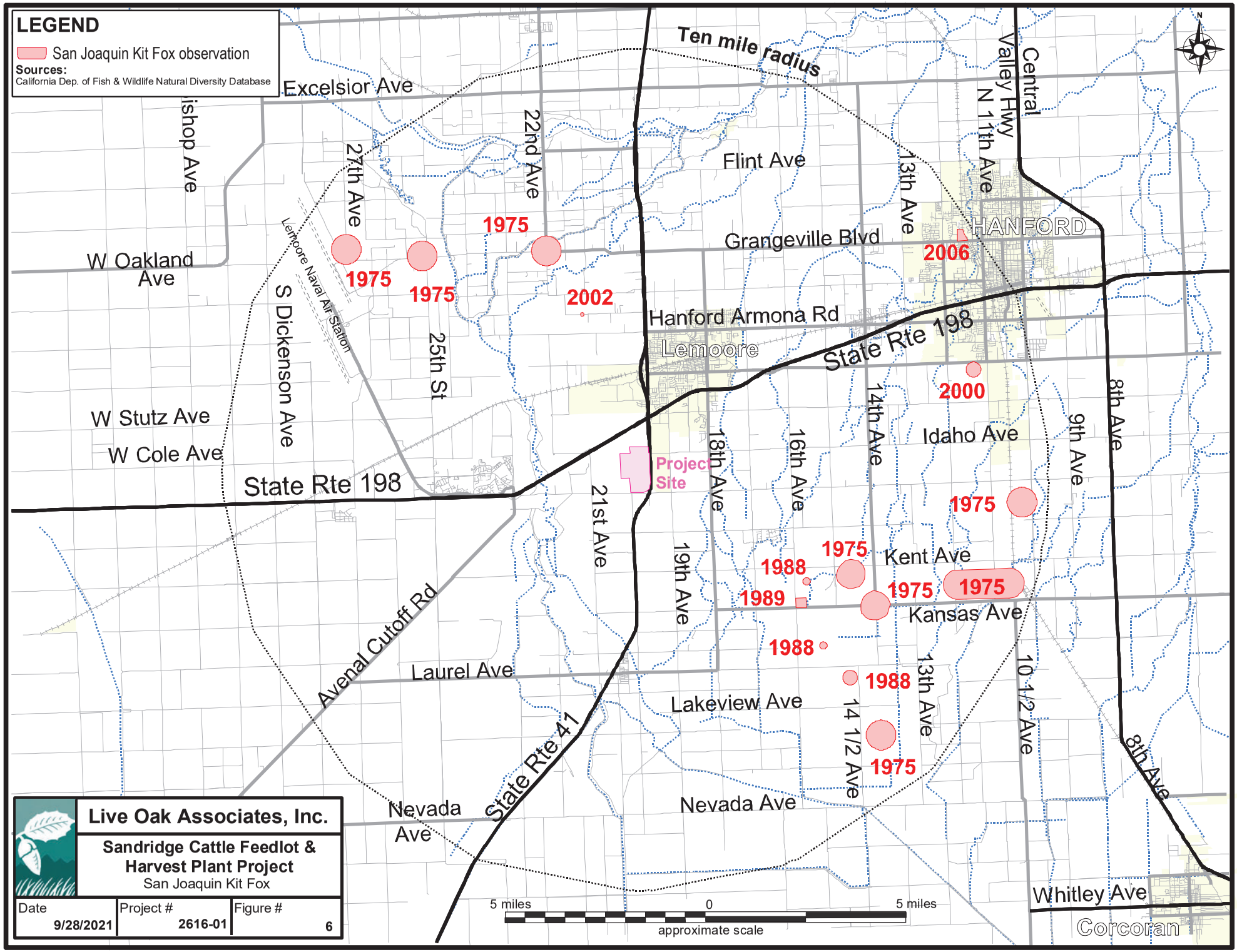

LEGEND
San Joaquin Kit Fox observation
Sources:
California Dep. of Fish & Wildlife Natural Diversity Database
Ten mile radius
Excelsior Ave
Flint Ave
Grangeville Blvd
Hanford Armona Rd
State Rte 198
W Oakland Ave
W Stutz Ave
W Cole Ave
Laurel Ave
Lakeview Ave
Nevada Ave
Kent Ave
Kansas Ave
Idaho Ave
Whitley Ave
Avenal Cutoff Rd
State Rte 41
Lemoore Naval Air Station
Lemoore
HANFORD
Corcoran
Project Site
Bishop Ave
27th Ave
22nd Ave
25th St
S Dickenson Ave
21st Ave
19th Ave
18th Ave
16th Ave
14th Ave
14 1/2 Ave
13th Ave
10 1/2 Ave
9th Ave
8th Ave
N 11th Ave
Valley Hwy
Central
1975
1975
1975
2002
2006
2000
1975
1975
1988
1989
1975
1975
1988
1988
1975
5 miles
0
5 miles
approximate scale
Live Oak Associates, Inc.
Sandridge Cattle Feedlot & Harvest Plant Project
San Joaquin Kit Fox
Date 9/28/2021
Project # 2616-01
Figure # 6

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (adapted from CDFW 2021 and CNPS 2021)

CNPS-Listed Plants

Species	Status	Habitat	Occurrence on the Project Site
Brittlescale (*Atriplex depressa*)	CRPR 1B	Occurs in chenopod scrub, valley and foothill grassland, and wetland habitats; blooms April-October; elevations below 1,050 ft.	**Absent.** Many years of agricultural activity on the project site has created habitat conditions unsuitable for this species.
Recurved Larkspur (*Delphinium recurvatum*)	CRPR 1B	Occurs in cismontane woodland and valley and foothill grasslands; blooms March-June; alkaline soils; elevations below 2,500 ft.	**Absent.** Many years of agricultural activity on the project site has created habitat conditions unsuitable for this species.
Alkali-sink Goldfields (*Lasthenia chrysantha*)	CRPR 1B	Occurs in vernal pools or wet saline flats of valley grassland, alkali sink, or wetland-riparian habitats below 330 feet. Blooms February – April.	**Absent.** Suitable habitat in the form of vernal pools does not exist on the project site.
Panoche Pepper-grass (*Lepidium jeridii ssp. album*)	CRPR 1B	Occurs in valley and foothill grasslands within white or grey clay lenses on steep slopes incidental in alluvial fans and washes. Prefers clay and gypsum-rich soils. Blooms Feb-June.	**Absent.** Soils and habitat for this species are absent from the project site.
Mud Nama (*Nama stenocarpa*)	CRPR 2B	Occurs in marshes and swamps (lake margins and riverbanks), up to 2,100 ft. in elevation. There are 22 documented occurrences regionally. Known from Imperial, Kings, Los Angeles, Orange, Riverside, San Clemente Island, and San Diego Counties. Blooms January-July.	**Absent.** Suitable habitat in the form of marshes, lake margins, and riverbanks does not exist on the project site. .
California Alkali-Grass (*Puccinellia simplex*)	CRPR 1B	Occurs in saline flats and mineral springs below 900 m. in elevation in the Central Valley, San Francisco Bay Area and western Mojave Desert.	**Absent.** Suitable habitat in the form of saline flats and mineral springs is absent from the project site.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS (adapted from CDFW 2021 and USFWS 2021)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act, and/or as California Fully Protected

Species	Status	Habitat	Occurrence on the Project Site
Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*)	FT	Lives in mature elderberry shrubs of California's Central Valley and Sierra Foothills.	**Absent.** Elderberry shrubs required by this species are absent from the site. The USFWS has determined that the range of this species does not include Kings County.
Giant Garter Snake (*Thamnophis gigas*)	FT, CT	Requires permanent or summer water with vegetative cover and a dense prey population at higher elevation uplands not prone to flooding.	**Absent.** The onsite ditches provide unsuitable aquatic habitat for this species due to the absence of perennial water and/or lack of emergent vegetation.
Western Snowy Plover (*Charadrius alexandrines nivosus*)	FT, CSC	Occurs along the coast from southern Washington to southern Baja California, and at interior locations including the Central Valley of California. Central Valley habitats typically used by this species include evaporation ponds, sewage ponds, reservoirs, and alkali lakes.	**Absent.** Suitable nesting and foraging habitat for this species is absent from the project site.
Swainson's Hawk (*Buteo swainsoni*)	CT	This breeding-season migrant to California nests in stands with few trees in riparian areas and juniper-sage flats, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	**Likely.** Suitable nesting habitat is absent from the site and the immediately surrounding lands. This species likely forages on the project site during the spring and summer.
Tricolored Blackbird (*Agelaius tricolor*)	CT	Breeds colonially near fresh water in dense bulrush, cattails, or thickets of willows or shrubs. Often nests in wheat or triticale fields. Forages in a wide variety of habitats.	**Possible.** Tricolored blackbirds could forage on the project site from time to time. Evidence of wheat crops was observed in some onsite fallow fields. Should areas of the site continue to be planted to wheat, onsite wheat fields would provide potential nesting habitat.
Fresno Kangaroo Rat (*Dipodomys nitratoides exilis*)	FE, CE	Inhabits grassland on gentle slopes of generally less than 10°, with friable, sandy-loam soils.	**Absent.** Many years of agricultural activity on the project site has created habitat conditions unsuitable for this species.
Tipton Kangaroo Rat (*Dipodomys nitratoides nitratoides*)	FE, CE	Occurs in chenopod scrub and alkali grasslands in isolated portions of Kings, Tulare, and Kern Counties.	**Absent.** Many years of agricultural activity on the project site has created habitat conditions unsuitable for this species.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS (cont'd)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act, and/or as California Fully Protected

Species	Status	Habitat	Occurrence in the Project Site
San Joaquin Kit Fox (*Vulpes macrotis mutica*)	FE, CT	Found in desert alkali scrub and annual grasslands; may forage in adjacent agricultural habitats. Use underground dens for thermoregulation, cover, and reproduction. Dens are either self-dug or modified rodent burrows.	**Unlikely.** There are no known kit fox populations in Kings County (Smith et al, 2006). The site represents extremely marginal habitat for the kit fox due to its disturbed landscape, human activities, and limited rodent activity. There are 1**5** recorded kit fox occurrences documented within a 10-mile radius of the project site, with the closest approximately 3.5 miles northwest of the project site from 2002, and the most recent from 2006 (CDFW 2021). No evidence of San Joaquin kit fox denning was found on the site during LOA's field survey. Moreover, the site is situated within a mosaic of agricultural and urban lands that have been identified as low suitability for kit fox (Cypher et al. 2013). At most, kit fox may, on rare occasions, pass through the site during dispersal movements.

ANIMALS (cont'd)

State Species of Special Concern

Western Spadefoot (*Spea hammondii*)	CSC	Mainly occurs in grasslands of San Joaquin Valley. Vernal pools or other temporary wetlands are required for breeding. Aestivates in underground refugia such as rodent burrows. Baumberger et al. (2019) recorded a maximum distance of around 890 feet between breeding and aestivation sites.	**Absent.** Vernal pools suitable for breeding by this species are absent from the site and surrounding lands.
Western Pond Turtle (*Emys marmorata*)	CSC	Occurs in open slow-moving water or ponds with rocks and logs for basking. Typically requires perennial waters. Nesting occurs in open areas, on a variety of soil types, and up to ¼ mile away from water. This species is almost extinct in the southern San Joaquin Valley.	**Absent.** Suitable aquatic habitat for this species is absent from the project site and surrounding lands.
California Glossy Snake (*Arizona elegans occidentalis*)	CSC	Occurs in arid scrub, rocky washes, grasslands, and chaparral from the eastern San Francisco Bay Area south to northwestern Baja, excluding coastal areas in Central California. Known from up to 7,200 ft. in elevation.	**Absent.** Many years of agricultural activity on the project site has created habitat conditions unsuitable for this species.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS (cont'd)

State Species of Special Concern

Species	Status	Habitat	**Occurrence in the Project Site**
Yellow-Headed Blackbird (*Xanthocephalus xanthocephalus*)	CSC	Nests colonially in cattails, bulrushes or reeds in wetlands, mountain meadows, and marshes, ponds, and rivers. Forages in grassland and cropland areas.	**Possible.** Nesting habitat for this species is absent from the site. However, this species may occasionally forage on the site.
Burrowing Owl (*Athene cunicularia*)	CSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	**Possible**. No sign of burrowing owl occupation was observed during LOA's field surveys. However, a comprehensive survey for this species was not conducted. This species is known to occur in the project vicinity (LOA pers. obs.). Suitable roosting/nesting burrows occur along the onsite east-west irrigation ditch at the north end of the site.
Northern Harrier (*Circus hudsonius*)	CSC	Frequents meadows, grasslands, rangelands, emergent wetlands; uncommon in wooded habitats.	**Possible.** This species potentially forages over the site. Potential nesting habitat occurs in some areas of the fallow agricultural fields that contain denser vegetation.
Loggerhead Shrike (*Lanius ludovicianus*)	CSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. Can often be found in cropland.	**Present.** This species was observed foraging on the site. Suitable nesting habitat is absent from the site.

OCCURRENCE TERMINOLOGY

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

STATUS CODES

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

CRPR	***California Rare Plant Rank***		
1A	Plants Presumed Extinct in California	2	Plants Rare, Threatened, or Endangered in California, but more common elsewhere
1B	Plants Rare, Threatened, or Endangered in California and elsewhere		

2.4 JURISDICTIONAL WATERS

Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the USACE, the CDFW, and the RWQCB. See Section 3.8 of this report for additional information.

The USACE and CDFW are not expected to claim jurisdiction over the onsite agricultural ditches. However, the RWQCB claimed jurisdiction over a similar ditch approximately 6.7 miles southwest of the project site.

2.5 SENSITIVE NATURAL COMMUNITIES

Sensitive Natural Communities are those that are of limited distribution, distinguished by significant biological diversity, home to special status plant and animal species, of importance in maintaining water quality or sustaining flows, etc. Examples of sensitive natural communities include various types of wetlands, riparian habitat, and valley scrub habitats. CDFW has assigned State Ranks to California's natural communities that reflect the condition and imperilment of that community throughout its range within the state. State Ranks are represented with a letter and number score. Older ranks, which need to be updated in the CNDDB, may still contain a decimal "threat" rank of .1, .2, or .3, where .1 indicates very threatened status, .2 indicates moderate threat, and .3 indicates few or no current known threats.

The project site supports no sensitive natural communities.

2.6 WILDLIFE MOVEMENT CORRIDORS

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 supports no wildlife movement corridors.

3.0 RELEVANT GOALS, POLICIES, AND LAWS

3.1 KINGS COUNTY GENERAL PLAN DAIRY ELEMENT BIOLOGICAL RESOURCES SURVEY (POLICY DE 3.3A):

The Kings County General Plan contains a Dairy Element that requires environmental review of all new dairies or the expansion of an existing dairy. The environmental review requirements that pertain to biological resources are stated below.

> "The results of a Biological Resources Survey shall be made a part of the Technical Report submitted with each application to either establish a new dairy or expand an existing dairy. The survey of habitat for sensitive species and wetlands shall be conducted by a qualified wildlife biologist prior to initiation of grading for each dairy facility to confirm the presence or absence of any nesting activity at each location. If habitat for sensitive species or wetlands is found, appropriate measures shall be taken to avoid destruction of active dens or nests. An appropriate buffer zone shall be established around any active den or nest based on consultation with representatives of the California Department of Fish and Wildlife. Construction activities shall be restricted in this zone until the qualified biologist has determined that the young animals are no longer using the dens or nests. Passive relocation methods shall be used by the qualified biologist in the event that removal of any wildlife from the impact area is deemed necessary by a regulatory agency with appropriate jurisdiction."

3.2 HABITAT CONSERVATION PLANS AND NATURAL COMMUNITY CONSERVATION PLANS

Section 10 of the federal Endangered Species Act establishes a process by which non-federal projects can obtain authorization to incidentally take listed species, provided take is minimized and thoroughly mitigated. A Habitat Conservation Plan (HCP) developed by the project applicant in collaboration with the USFWS and/or NMFS, ensures that such minimization and mitigation will occur, and is a prerequisite to the issuance of a federal incidental take permit. Similarly, a Natural Community Conservation Plan (NCCP) developed by the project applicant

in collaboration with CDFW, provides for the conservation of biodiversity within a project area, and permits limited incidental take of state-listed species.

3.3 THREATENED AND ENDANGERED SPECIES

In California, imperiled plants and animals may be afforded special legal protections under the California Endangered Species Act (CESA) and/or Federal Endangered Species Act (FESA). Species may be listed as "threatened" or "endangered" under one or both Acts, and/or as "rare" under CESA. Under both Acts, "endangered" means a species is in danger of extinction throughout all or a significant portion of its range, and "threatened" means a species is likely to become endangered within the foreseeable future. Under CESA, "rare" means a species may become endangered if their present environment worsens. Both Acts prohibit "take" of listed species, defined under 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), and more broadly defined under FESA to include "harm" (16 USC, Section 1532(19), 50 CFR, Section 17.3).

When state and federally listed species have the potential to be impacted by a project, the USFWS and CDFW must be included in the CEQA process. These agencies review the environmental document to determine the adequacy of its treatment of endangered species issues and to make project-specific recommendations for the protection of listed species. Projects that may result in the "take" of listed species must generally enter into consultation with the USFWS and/or CDFW pursuant to FESA and CESA, respectively. In some cases, incidental take authorization(s) from these agencies may be required before the project can be implemented.

3.4 CALIFORNIA FULLY PROTECTED SPECIES

The classification of certain animal species as "fully protected" was the State of California's initial effort in the 1960s, prior to the passage of the California Endangered Species Act, to identify and provide additional protection to those species that were rare or faced possible extinction. Following CESA enactment in 1970, many fully protected species were also listed as California threatened or endangered. The list of fully protected species are identified, and their protections stipulated, in California Fish and Game Code Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and fish (5515). Fully protected species may not be

taken or possessed at any time and no licenses or permits may be issued for their take, except in conjunction with necessary scientific research and protection of livestock.

3.5 MIGRATORY BIRDS

The Federal Migratory Bird Treaty Act (FMBTA: 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 actually covers almost all birds native to the United States, even those that are non-migratory. The FMBTA encompasses whole birds, parts of birds, and bird nests and eggs.

Native birds are also protected under California state law. The California Fish and Game Code makes it unlawful to take or possess any non-game bird covered by the FMBTA (Section 3513), as well as any other native non-game bird (Section 3800), even if incidental to lawful activities. Moreover, the California Migratory Bird Protection Act, enacted in September 2019, clarifies native bird protection and increases protections where California law previously deferred to federal law.

3.6 BIRDS OF PREY

Birds of prey are protected in California under provisions of the 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 federal Bald and Golden Eagle Protection Act (16 USC 668), which makes it unlawful to kill birds or their eggs.

3.7 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.

3.8 WETLANDS AND OTHER JURISDICTIONAL WATERS

Section 404 of the federal Clean Water Act (CWA) regulates the discharge of dredged or fill material into "navigable waters" (33 U.S.C. §1344), defined in the CWA as "the waters of the United States, including the territorial seas" (33 U.S.C. §1362(7)). The CWA does not supply a definition for waters of the U.S., and that has been the subject of considerable debate since the CWA's passage in 1972. A variety of regulatory definitions have been promulgated by the two federal agencies responsible for implementing the CWA, the Environmental Protection Agency (EPA) and USACE. These definitions have been interpreted, and in some cases, invalidated, by federal courts.

Most recently, waters of the U.S. were defined by the Navigable Waters Protection Rule (NWPR). The new rule was published in the Federal Register on April 21, 2020 and took effect on June 22, 2020. However, on August 30, 2021, in the case of *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency*, the U.S. District Court for the District of Arizona vacated and remanded the NWPR. In light of this order, the EPA and USACE have halted implementation of the NWPR and, until further notice, are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime.

The interpretation of waters of the U.S. prior to 2015 generally included:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
- All interstate waters including interstate wetlands.
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce.
- All impoundments of waters otherwise defined as waters of the United States under the definition.

- Tributaries of waters identified in the bulleted items above.

As determined by the United States Supreme Court in its 2001 *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC) decision, 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 U.S. 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.

All activities that involve the discharge of dredge or fill material into waters of the U.S. 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 result 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 State Water Resources Control Board has regulatory authority to protect the water quality of all surface water and groundwater in the State of 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 waters of the U.S. 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 waters of the U.S., 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 or more acres 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 water of the U.S. may require a 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 of any material from their bed or bank, or the deposition of debris require a Notification of 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 measures will be implemented to protect the habitat values of the lake or drainage in question.

4.0 PROJECT IMPACTS AND MITIGATIONS

Although the footprint of planned infrastructure occupies only a portion of the site, this impact analysis assumes that the entire project site will experience some sort of project-related disturbance from vegetation removal, grading, and/or construction activities.

4.1 POTENTIALLY SIGNIFICANT PROJECT IMPACTS/MITIGATION

4.1.1. Project Impacts to Swainson's Hawk

Potential Impacts. LOA conducted a detailed assessment of project impacts to the Swainson's hawk from loss of potential foraging habitat. LOA's impact assessment comprised two broad tasks. First, LOA assessed the suitability of the site as Swainson's hawk foraging habitat. Second, LOA assessed foraging habitat suitability and Swainson's hawk abundance within a 10-mile radius of the project site. This information was used to analyze impacts on the local Swainson's hawk population from the loss of foraging habitat associated with the project site's agricultural fields.

Methodologies

The assessment of the site's suitability for Swainson's hawk foraging was based on information gathered during LOA's September 2021 field survey. Land uses and biotic habitats of the site and adjacent lands were characterized and the presence of potential Swainson's hawk prey species was noted.

The regional analysis of foraging habitat availability and Swainson's hawk abundance was patterned after methodologies developed by Jim Estep (Estep 2011), a wildlife biologist who has monitored Swainson's hawk populations and conducted research on the Swainson's hawk for over 35 years. First, the National Agricultural Statistic Service's 2020 Cropland Data Layer (CDL; USDA 2021) was overlaid onto an approximately 223,215-acre area ("analysis area"), which encompassed the project site and surrounding lands within a 10-mile radius. The CDL uses satellite imagery to classify land uses across the continental United States, with all agricultural lands classified by crop. The 10-mile radius approximates the upper limit of the flight distance between Swainson's hawk nesting and foraging sites, based on telemetry studies

conducted by Estep (1989) and Babcock (1993). The 10-mile radius is also CDFW's standard for analyzing the potential impacts of, and requiring mitigation for, project-related loss of Swainson's hawk foraging habitat (CDFG 1994). Using the CDL, the acreage of all land use/crop types within the analysis area was calculated.

Next, the land use/crop types were classified according to suitability as Swainson's hawk foraging habitat, based on expert opinion (Estep 1989, Estep 2009, Estep 2011) and agency guidelines (CDFG 1994). The "suitable" category included alfalfa and other hay crops, fallow fields, pasture, non-tree-dominated natural lands, and most types of irrigated row crops. It also included cereal grains, as these crops are at least seasonally suitable for Swainson's hawk foraging. The "unsuitable" category included lands that either do not support Swainson's hawk prey or are not readily accessible to foraging Swainson's hawks, and included all developed uses, orchards, vineyards, cotton, and tree-dominated natural lands. The collective area of suitable habitat within the analysis area is hereafter referred to as *available foraging habitat*.

To obtain a reasonable estimate of the number of nesting pairs within the analysis area, LOA consulted CNDDB occurrence records (CDFW 2021), nesting records compiled by ornithologist Rob Hansen for Tulare and Kings Counties (Hansen 2017), and the results of comprehensive Swainson's hawk nest surveys conducted as part of the Estep (2011) study. Because the Estep (2011) analysis area had approximately 81 percent overlap with that of the current project, and because the nesting data obtained were based on systematic and repeated searches of that study's entire analysis area within a single breeding season, LOA considered these data to be a better representation of annual Swainson's hawk nesting in the analysis area than either the CNDDB or Hansen (2017). By contrast, the latter two datasets span many years and the CNDDB is based largely on opportunistic sightings that are submitted on a voluntary basis. Using the Estep (2011) nesting data rather than the CNDDB and Hansen (2017) datasets was also the more conservative approach; Estep (2011) documented 19 nests in the analysis area, as compared to 13 nests in the CNDDB and Hansen (2017) datasets.

In the 81 percent of the analysis area that overlapped with that of Estep (2011), we used Estep's nest observations as a surrogate for the number of pairs present in any given year. In the 19

percent of the analysis area that did not overlap with that of Estep (2011), we used Estep's observed nest density to estimate the number of nesting pairs.

We estimated the amount of foraging habitat needed to sustain nesting pairs of Swainson's hawks within the analysis area by first multiplying the number of nesting occurrences (see above) by 6,820 acres, which Estep (1989) found to be the average amount of foraging habitat utilized per pair, and then reducing the resulting number by 30 percent to account for overlap of foraging ranges of different pairs (Estep 2011). The value obtained from these steps is referred to as *required foraging habitat*.

Next, the analysis area's required foraging habitat acreage was subtracted from available foraging habitat acreage to yield an estimate of *surplus foraging habitat*, or foraging habitat within the analysis area that is in excess of what is required by the Swainson's hawk pairs nesting within. Finally, the percent loss of surplus foraging habitat that would result from the proposed project was calculated. This was accomplished by dividing the approximate acreage of the site by surplus foraging habitat acreage, and multiplying by 100. Project-related loss of foraging habitat was considered a significant impact requiring compensatory mitigation if it exceeded a 30 percent reduction of surplus foraging habitat, consistent with the Estep (2011) methodologies.

Results

Site Conditions

As discussed in Section 2.1, the project site consists of agricultural fields utilized for a variety of silage crops including corn, alfalfa, and wheat. Depending on the crop and time of year, these fields would fluctuate in foraging value for Swainson's hawks. Foraging value would be highest when the fields are planted to alfalfa or left fallow, and lowest when the fields support mature stands of corn that would limit access to prey. In general, though, the entirety of the site is suitable as Swainson's hawk foraging habitat.

Land Uses and Swainson's Hawk Occurrences Within the 10-mile Analysis Area

Agricultural uses account for nearly 88% of the analysis area. Orchards and vineyards (31%) and grain crops (26%) are the most prevalent agricultural uses, followed by irrigated row crops (15%), primarily cotton and tomatoes. Other agricultural uses include fallow/idle cropland and alfalfa, each encompassing about 8% of the analysis area. Although the analysis area contains several cities and communities, including Lemoore, Stratford, and a portion of Hanford, developed lands (including roads) account for only around 10% of the analysis area. A comprehensive list of land uses and associated acreages are presented in Table 2 below.

Approximately 51% (112,889 acres) of the analysis area provides potentially suitable Swainson's hawk foraging habitat (Figure 6). Just over half of these lands (57,215 acres) are planted to cereal grains and have a foraging value that varies by season, while the remainder (55,674 acres) are more consistently suitable for foraging by this species. Approximately 49% (110,326 acres) of the analysis area is not suitable as foraging habitat for the Swainson's hawk.

The analysis area is used for nesting by an estimated 22 pairs of Swainson's hawks. This estimate includes the 19 pairs that were detected in the analysis area in 2011 (Estep 2011; Figure 7), and an estimated three pairs that nest within the 66-square-mile portion of the analysis area that does not overlap with that of Estep (2011), based on Estep's observed nest density of 0.05 nests per square mile.

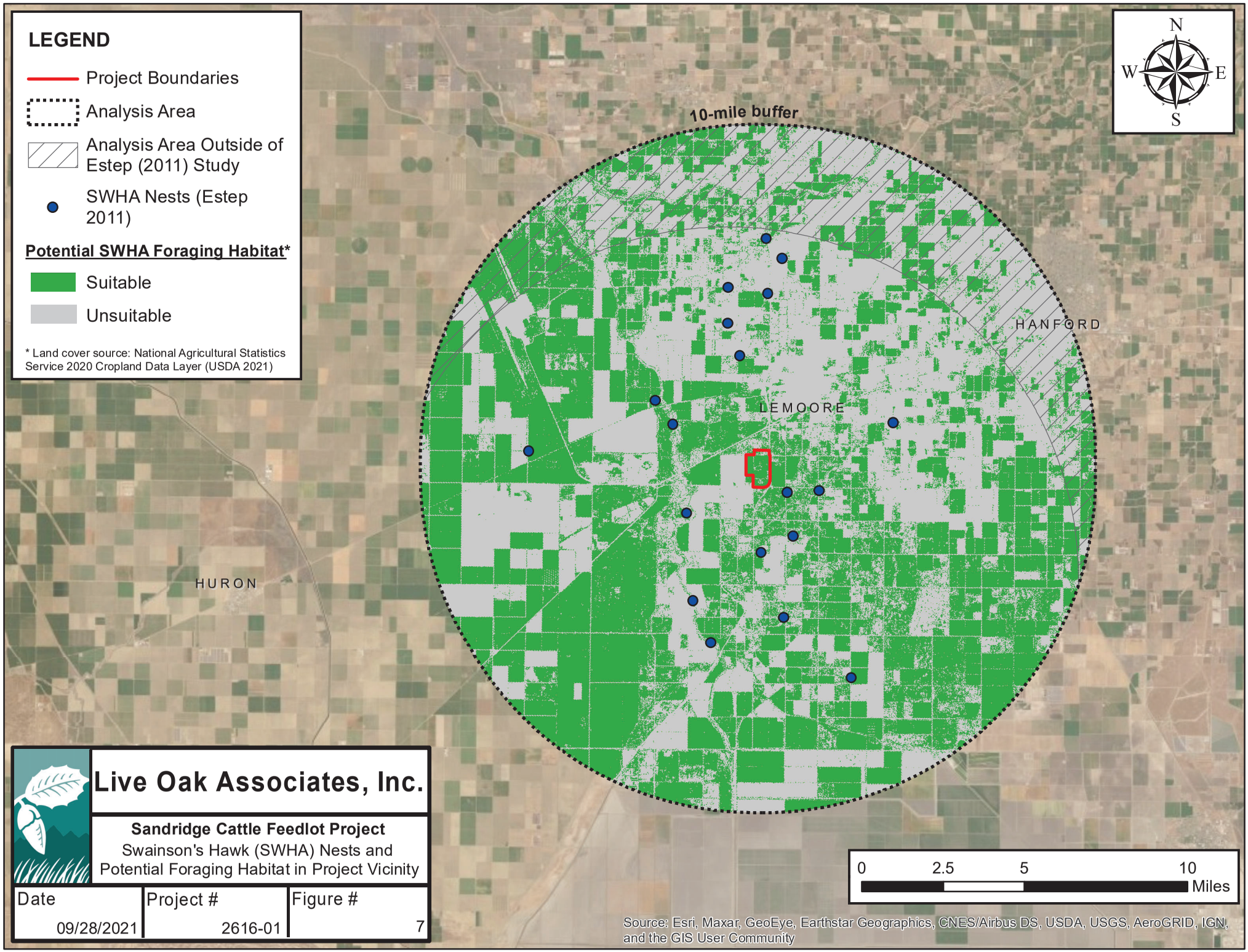
Foraging Acreage Calculations

The analysis area contains 112,889 acres of available foraging habitat for Swainson's hawks (see Figure 7). The required foraging habitat for 22 nesting pairs is 105,028; again, this assumes 6,280 acres per pair, less 30 percent to account for foraging overlap. Hence, there is 7,861 acres of surplus foraging habitat in the analysis area. The project site represents approximately 457 acres of potential foraging habitat for the Swainson's hawk, or around 6% of the surplus foraging habitat within the analysis area.

Table 2. Land uses by area (acres) and suitability as Swainson's hawk foraging habitat, Sandridge Cattle Feedlot Project 10-mile analysis area, Kings and Fresno Counties, California.

Alfalfa, Other Hay, and Natural Lands -- Suitable	
Fallow / Idle Cropland	18,696
Alfalfa	16,827
Grassland / Pasture	1,437
Other Hay / Non-alfalfa	806
Herbaceous Wetlands	303
Shrubland	156
Grain Crops -- Suitable	
Winter Wheat	33,376
Double Crop: Winter Wheat / Corn	5,091
Corn	4,814
Barley	4,335
Triticale	2,507
Double Crop: Winter Wheat / Sorghum	2,494
Oats	2,289
Double Crop: Triticale / Corn	1,154
Sorghum	497
Rye	437
Spring Wheat	96
Double Crop: Oats / Corn	63
Durum Wheat	40
Double Crop: Barley / Corn	15
Sweet Corn	6
Rice	1
Irrigated Row Crops – Suitable	
Tomatoes	14,069
Garlic	1,254
Chickpeas	698
Safflower	686
Onions	640
Lettuce	53
Herbs	10
Peppers	8
Peas	8
Other Crops	7
Carrots	7
Honeydew Melons	3
Cantaloupes	3
Squash	2
Dry Beans	1
Orchards & Vineyards – Unsuitable	
Pistachios	29,614
Almonds	23,493
Walnuts	9,291
Grapes	3,742
Pomegranates	1,026
Cherries	725
Other Tree Crops	296
Plums	237
Peaches	151
Nectarines	72
Citrus	42
Pecans	38
Oranges	26
Olives	23
Apples	9
Developed – Unsuitable	
Developed / Open Space	8,979
Developed / Medium Intensity	6,157
Developed / Low Intensity	6,069
Developed / High Intensity	1,688
Other – Unsuitable	
Cotton	16,426
Open Water	1,388
Barren	803
Woody Wetlands	27
Mixed Forest	2
Evergreen Forest	2

Total Suitable Habitat	**112,889**
Alfalfa, Other Hay, and Natural Lands	38,225
Grain Crops	57,215
Irrigated Row Crops	17,449
Total Unsuitable Habitat	**110,326**
Orchards & Vineyards	68,785
Developed	22,893
Other	18,648



Live Oak Associates, Inc.

Sandridge Cattle Feedlot Project
Swainson's Hawk (SWHA) Nests and Potential Foraging Habitat in Project Vicinity

Date	Project #	Figure #
09/28/2021	2616-01	7

Discussion

The site represents suitable foraging habitat for Swainson's hawks, and the regional population of Swainson's hawks are expected to utilize it on a regular basis during the breeding season. Loss of this habitat reflects a larger trend in the analysis area. Based on 2011 CDL data (USDA 2021) and identical habitat parameters and procedures to those described above, available foraging habitat in the analysis area has decreased by approximately 12% since the time of the Estep (2011) study. Surplus foraging habitat for 22 nesting pairs has declined even more dramatically, from 23,131 acres in 2011 to 7,861 acres presently, a 66% reduction. On the other hand, habitat loss since 2011 may have led to reduced nesting within the analysis area, such that there may actually be more surplus foraging habitat at present than what our calculations suggest.

Even if the analysis area continues to support the level of Swainson's hawk nesting observed by Estep (2011), the project will result in only a 6% reduction of the surplus foraging habitat for these individuals. Estep (2011) considered a loss of 30% or more of surplus foraging habitat "significant" per the provisions of CEQA because, in his opinion, this level of loss could reduce the distribution and abundance of an existing Swainson's hawk population and/or prevent that population from expanding. Because project-related loss of surplus foraging habitat is well below the 30% threshold established by Estep (2011), a recognized expert in the field, project-related impacts to Swainson's hawk foraging habitat are considered less than significant under CEQA.

The project does have some potential to affect Swainson's hawks through construction-related disturbance during the nesting season. Although trees are absent from the project site itself, several mature trees suitable for Swainson's hawk nesting are located nearby, between 0.1 and 0.2 mile from site boundaries. Swainson's hawks choosing to nest within these trees would presumably be relatively tolerant of anthropogenic disturbance, as the trees are located near residences, roads, and a BMX racetrack. Nevertheless, construction activities would temporarily increase disturbance near these trees above baseline levels, possibly affecting reproductive success. Project-related disturbance that affects Swainson's hawk nesting success would be considered a significant impact under CEQA.

Mitigation. The applicant will implement the following measures to avoid and minimize the potential for construction-related disturbance of nesting Swainson's hawks.

> ***Mitigation Measure 4.1.1a* (*Construction Timing*).** If feasible, project construction will occur entirely outside the Swainson's hawk nesting season, typically defined as March 1-September 15.
>
> ***Mitigation Measure 4.1.1b* (*Preconstruction Surveys*).** If construction activities must occur between March 1 and September 15, then within 10 days prior to the start of work, a qualified biologist will conduct preconstruction surveys from publicly accessible roads for Swainson's hawk nests within ½ mile of the work area(s) in question.
>
> ***Mitigation Measure 4.1.1c* (*Avoidance*).** Should any active nests be identified, the biologist will establish a suitable disturbance-free buffer around the nest, to be maintained until the biologist has determined that the young have fledged.

Implementation of these measures will reduce potential project-related impacts to the Swainson's hawk to a less than significant level under CEQA and ensure compliance with state and federal laws protecting this species.

4.1.2 Project Impacts to Nesting Birds Including the Tricolored Blackbird and Northern Harrier

Potential Impacts. The project site contains suitable nesting habitat for a number of avian species protected under the federal Migratory Bird Treaty Act and related state laws. Although trees and shrubs are absent from the site, a number of nesting birds my utilize the ground or herbaceous vegetation on the site for nesting, including the tricolored blackbird and northern harrier. If birds were to be nesting on or adjacent to the project site at the time of construction, project-related activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of migratory birds or raptors, or result in mortality of individual birds constitute a violation of state and federal laws (see Sections 3.5, 3.6, and 3.7) and would be considered a significant impact under CEQA.

Project-related loss of habitat for the tricolored blackbird and northern harrier is considered less then significant because the site offers no unique habitat value and there is an abundance of similar habitat in the region that will continue to be available for these species.

Mitigation. In order to minimize construction disturbance to nesting birds and raptors, the applicant will implement the following measure(s), as necessary, prior to project construction:

> ***Mitigation 4.1.2a* (*Avoidance*).** In order to avoid impacts to nesting migratory birds and raptors, construction will occur, where possible, outside the nesting season, or between September 1 and January 31.
>
> ***Mitigation 4.1.2b* (*Pre-construction Surveys*).** If construction must occur during the nesting season (February 1-August 31), a qualified biologist will conduct pre-construction surveys for active migratory bird and raptor nests within 10 days of the onset of these activities. Nest surveys will include all areas on and within 500 feet of the project site, where accessible. Inaccessible areas will be surveyed from within the project boundaries or publicly accessible roads using binoculars or a spotting scope. If no active nests are found within the survey area, no further mitigation is required.
>
> ***Mitigation 4.1.2c* (*Establish Buffers*).** Should any active nests be discovered in or near proposed work areas, the biologist will determine appropriate construction setback distances based on applicable CDFW guidelines and/or the biology of the affected species. Construction-free buffers will be identified on the ground with flagging, fencing, or by other easily visible means, and will be maintained until the biologist has determined that the young have fledged.
>
> ***Mitigation 4.1.2d* (*Nest Monitoring*).** Should construction need to occur within the construction free buffers, then prior to initiation of these activities a qualified biologist will conduct a survey to establish a behavioral baseline of the affected nest(s). When construction begins within the buffer, the qualified biologist will continuously monitor nests to detect behavioral changes resulting from the project. If behavioral changes occur, the work causing that change will cease. If there are no behavioral changes after one week of monitoring, then monitoring may be reduced as determined by the biologist.

Compliance with the above mitigation measures would reduce impacts to nesting raptors and migratory birds to a less than significant level under CEQA and ensure compliance with state and federal law.

4.1.3 Burrowing Owl

Impact: Burrows suitably sized for burrowing owl nesting and roosting were observed along the irrigation ditch at the north end of the site. The project site offers suitable foraging habitat as well. While no evidence of burrowing owls was observed during the field survey, a comprehensive survey for this species was not conducted. Burrowing owls are known to occur in the project vicinity. Therefore, it is possible that burrowing owls may use the project site for

foraging and nesting or roosting. These small raptors are protected under the Migratory Bird Treaty Act and California Fish and Game Code. Project-related grading activities have the potential to bury owls that may retreat to burrows ahead of heavy equipment. Mortality of individual birds would be a violation of state and federal laws and considered a significant impact under CEQA.

Project-related loss of habitat for the burrowing owl is considered less then significant because the site offers no unique habitat value and there is an abundance of similar habitat in the region that will continue to be available for this species. Furthermore, the burrowing owl is known to occur in close association with dairy and feedlot facilities in the region. Therefore, the project site may retain some suitability for the burrowing owl after project completion.

Mitigation. Prior to ground disturbance activities, the following measure(s) will be implemented as necessary:

> ***Mitigation Measure 4.1.3a (Take Avoidance Survey).*** A take avoidance survey for burrowing owls will be conducted by a qualified biologist no less than 14 days prior to the start of construction. This take avoidance survey will be conducted according to methods described in the Staff Report on Burrowing Owl Mitigation (CDFG 2012). The survey area will include all potential roosting and nesting habitat on and within 500 feet of project impact areas, where accessible. Inaccessible areas will be surveyed from within the project boundaries or publicly accessible roads using binoculars.
>
> ***Mitigation Measure 4.1.3b (Avoidance of Active Nests).*** If pre-construction surveys are undertaken during the breeding season (February 1 through August 31) and active nest burrows are located within or near construction zones, a construction-free buffer of 250 feet should be established around all active owl nests. The buffer areas should be enclosed with temporary fencing or flagging, and construction equipment and workers should not enter the enclosed setback areas. Buffers should remain in place for the duration of the breeding season. After the breeding season (i.e. once all young have left the nest), passive relocation of any remaining owls may take place as described below.
>
> ***Mitigation Measure 4.1.3c (Passive Relocation of Resident Owls).*** During the non-breeding season (September 1-January 31), resident owls occupying burrows in project impact areas may either be avoided, or passively relocated to alternative habitat. If the applicant chooses to avoid active owl burrows within the impact area during the non-breeding season, a 150-foot disturbance-free buffer will be established around these burrows. The buffers will be enclosed with temporary fencing, and will remain in place until a qualified biologist determines that the burrows are no longer active. If the applicant chooses to passively relocate owls during the non-breeding season, this activity will be conducted in accordance with a relocation plan prepared by a qualified biologist.

Implementation of the above measures will reduce potential project impacts to burrowing owl to a less then significant level per CEQA, and will ensure compliance with federal and state laws protecting this species.

4.2 LESS THAN SIGNIFICANT PROJECT IMPACTS

4.2.1 Special Status Plants

Potential Impacts. Six special status vascular plant species are known to occur in the region (see Table 1). Due to habitat loss or degradation associated with many years of agricultural disturbance of the project site, the absence of any historically suitable habitat, and/or the site being situated outside a particular species' range, none of these six species are expected to occur within the project site. Therefore, the proposed project would not affect regional populations of special status plant species and impacts would be less than significant.

Mitigation. Mitigation measures are not warranted.

4.2.2 Special Status Animal Species Absent from, or Unlikely to Occur on the Project Site

Potential Impacts. Of the 15 special status animal species that potentially occur in the project vicinity, nine (9) are considered absent or unlikely to occur within the project site due to past and ongoing disturbance of the site, the absence of suitable habitat, and/or the site being situated outside of the species' known distribution. These species include the valley elderberry longhorn beetle, giant garter snake, western snowy plover, western spadefoot, western pond turtle, California glossy snake, Fresno kangaroo rat, Tipton kangaroo rat, and San Joaquin kit fox (see Table 1). The project does not have the potential to significantly impact these species through construction mortality or loss of habitat because there is little or no likelihood that they are present.

Mitigation. Mitigation is not warranted.

4.2.3 Special Status Animal Species that May Occur on the Project Site as Occasional or Regular Foragers but Breed Elsewhere

Potential Impacts. Two special status animals, the yellow-headed blackbird and loggerhead shrike, have the potential to forage on the site from time to time but would not breed or roost on

or near the site (see Table 1). Potential foraging habitat on the project site is not uniquely important for these species and similar or higher quality foraging habitat is relatively abundant in the region. These species would not be vulnerable to construction-related injury or mortality because, even if one or more individuals were to be foraging on the site during construction, their high level of mobility would allow them to easily evade any danger. For these reasons, project impacts to the yellow-headed blackbird and loggerhead shrike are considered less than significant under CEQA.

Mitigation. Mitigation is not warranted.

4.2.4 Wildlife Movement Corridors

Potential Impacts. Geographic features that could be utilized as wildlife movement corridors are absent from the project site. Therefore, the project will result in a less than significant effect on wildlife movement corridors.

Mitigation. No mitigation is warranted.

4.2.5 Sensitive Natural Communities

Impact. Sensitive Natural Communities are absent from the project site. Therefore, the project will result in a less than significant effect on sensitive natural communities.

Mitigation. No mitigation is warranted.

4.2.6 Waters of the State and the United States

Impact. Hydrologic features on the site consist of agricultural irrigation ditches. The USACE, and CDFW are not anticipated to claim jurisdiction over these ditches. However, as discussed in Section 2.4, the RWQCB may claim jurisdiction over the onsite ditches. Given the little function and value these ditches provide to native plants and wildlife, as well as the abundance of similar ditches in the region, any project related impacts to these ditches are not considered a significant impact to waters of the State or United States. However, it is recommended that the RWQCB be notified prior to any impacts to these ditches.

Mitigation. No mitigation is warranted.

4.2.7 Local Policies or Habitat Conservation Plans

Potential Impacts. The project appears to be in compliance with all other County of Kings General Plan polices. See Appendix D for the County of Kings General Plan policies pertaining to biological resources. No known Habitat Conservation Plans are in effect for the area.

Mitigation. No mitigation is warranted.

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APPENDIX A: VASCULAR PLANTS OF THE PROJECT SITE

APPENDIX A: VASCULAR PLANTS OF THE PROJECT SITE

The plant species listed below were observed on the Sandridge Cattle Feedlot and Harvest Plant Project site during a survey conducted by Live Oak Associates, Inc. on September 15, 2021. The U.S. Fish and Wildlife Service wetland indicator status of each plant has been shown following its common name.

OBL - Obligate
FACW - Facultative Wetland
FAC - Facultative
FACU - Facultative Upland
UPL - Upland
+/- - Higher/lower end of category
NR - No review
NA - No agreement
NI - No investigation

AMARATHACEAE- Amaranth Family		
Amaranthus albus	Tumbleweed	FACU
Amaranthus blitoides	Prostrate Pigweed	FACW
ASTERACEAE – Sunflower Family		
Erigeron bonariensis	Flax-leaved Horseweed	UPL
Erigeron canadensis	Canada Horseweed	FACU
Pseudognaphalium luteoalbum	Jersey Cudweed	FAC
Lactuca serriola	Prickly Lettuce	FACU
Helianthus annuus	Annual Sunflower	FACU
BORAGINACEAE – Borage Family		
Amsinckia sp.	Fiddleneck	UPL
Heliotropium curassavicum	Salt Heliotrope	FACU
BRASSICACEAE – Mustard Family		
Capsella bursa-pastoris	Shepherd's Purse	FACU
Sisymbrium irio	London Rocket	UPL
CARYOPHYLLACEAE – Pink Family		
Spergularia sp.	Sandspurry	
CHENOPODIACEAE – Goosefoot Family		
Atriplex serenana var. serenana	Bractscale	FAC
Bassia hyssopifolia	Five-Hook Bassia	FACU
Chenopodium album	Lamb's Quarters	FACU
Salsola tragus	Russian Thistle	FACU
CONVOLVULACEAE – Morning Glory Family		
Cuscuta sp.	Dodder	UPL
Cressa truxillensis	Alkali Weed	FACW
FABACEAE—Pea Family		
Medicago sativa	Alfalfa	UPL
MALVACEAE – Mallow Family		
Malvella leprosa	Alkali Mallow	FACU

Malva parviflora	Mallow	UPL
POACEAE – Grass Family		
Avena sp.	Wild Oat	UPL
Cynodon dactylon	Bermudagrass	FACU
Distichlis spicata	Saltgrass	FAC
Echinochloa crus-galli	Barnyard Grass	FACW
Leptochloa fusca	Sprangletop	FACW
Phalaris minor	Littleseed Canarygrass	UPL
Sorghum halepense	Johnsongrass	FACU
Triticum sp.	Wheat	NR
POLYGONACEAE- Buckwheat Family		
Polygonum aviculare	Prostrate Knotweed	FAC
Rumex crispus	Curly Dock	FAC
PORTULACACEAE- Purslane Family		
Portulaca oleracea	Common Purslane	FAC
TAMARICACEAE – Tamarisk Family		
Tamarix ramosissima	Tamarisk	UPL

APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE PROJECT SITE

APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE PROJECT SITE

The species listed below are those that may reasonably be expected to use the habitats of the project site routinely from time to time. The list was not intended to include birds that are vagrants or occasional transients. Terrestrial vertebrate species observed in or adjacent to the Sandridge Cattle Feedlot and Harvest Plant Project site on September 15, 2021 have been noted with an asterisk.

CLASS: AMPHIBIA (Amphibians)
ORDER: SALIENTIA (Frogs and Toads)
FAMILY: HYLIDAE (Treefrogs and relatives)
Sierran Treefrog (*Pseudacris regilla*)

CLASS: REPTILIA (Reptiles)
ORDER: SQUAMATA (Lizards and Snakes)
SUBORDER: SAURIA (Lizards)
FAMILY: PHRYNOSOMATIDAE
Side-blotched Lizard (*Uta stansburiana*)
SUBORDER: SERPENTES (Snakes)
FAMILY: COLUBRIDAE (Colubrids)
Pacific Gopher Snake (*Pituophis catenifer catenifer*)
Common Kingsnake (*Lampropeltis getulus*)

CLASS: AVES (Birds)
ORDER: ANSERIFORMES (Ducks, Geese, and Swans)
FAMILY: ANATIDAE (Ducks, Geese, and Swans)
Mallard (*Anas platyrhynchos*)
ORDER: CICONIIFORMES (Herons, Storks, Ibises and Relatives)
FAMILY: ARDEIDAE (Herons and Bitterns)
*Great Blue Heron (*Ardea herodias*)
Cattle Egret (*Bubulcus ibis*)
Snowy Egret (*Egretta thula*)
*Great Egret (*Ardea alba*)
FAMILY: THRESKIORNITHIDAE (Ibises and Spoonbills)
White-faced Ibis (*Plegadis chihi*)
ORDER: FALCONIFORMES (Vultures, Hawks, and Falcons)
FAMILY: CATHARTIDAE (American Vultures)
*Turkey Vulture (*Cathartes aura*)
FAMILY: ACCIPITRIDAE (Hawks, Old World Vultures, and Harriers)
Northern Harrier (*Circus hudsonius*)
Swainson's Hawk (*Buteo swainsoni*)
*Red-tailed Hawk (*Buteo jamaicensis*)
FAMILY: FALCONIDAE (Caracaras and Falcons)
*American Kestrel (*Falco sparverius*)
ORDER: GRUIFORMES (Cranes, Rails and Relatives

FAMILY: RALLIDAE (Rails, Gallinules, and Coots)
American Coot (*Fulica americana*)
ORDER: CHARADRIIFORMES (Shorebirds, Gulls, and relatives)
FAMILY: CHARADRIIDAE (Plovers and relatives)
*Killdeer (*Charadrius vociferus*)
FAMILY: COLOPACIDAE (Sandpipers and Relatives)
Greater Yellowlegs (*Tringa melanoleuca*)
Spotted Sandpiper (*Actitis macularia*)
Long-Billed Curlew (*Numenius americanus*)
Least Sandpiper (*Calidris minutilla*)
FAMILY: LARIDAE (Skuas, Gulls, Terns and Skimmers)
Ring-Billed Gull (*Larus delawarensis*)
ORDER: COLUMBIFORMES (Pigeons and Doves)
FAMILY: COLUMBIDAE (Pigeons and Doves)
Rock Pigeon (*Columba livia*)
Mourning Dove (*Zenaida macroura*)
Eurasian Collared-Dove (*Streptopelia decaocto*)
ORDER: STRIGIFORMES (Owls)
FAMILY: TYTONIDAE (Barn Owls)
Barn Owl (*Tyto alba*)
FAMILY: STRIGIDAE (Typical Owls)
Burrowing Owl (*Athene cunicularia*)
ORDER: APODIFORMES (Swifts and Hummingbirds)
FAMILY: TROCHILIDAE (Hummingbirds)
Anna's Hummingbird (*Calypte anna*)
ORDER: PASSERIFORMES (Perching Birds)
FAMILY: TYRANNIDAE (Tyrant Flycatchers)
Black Phoebe (*Sayornis nigricans*)
Say's Phoebe (*Sayornis saya*)
Western Kingbird (*Tyrannus verticalis*)
FAMILY: LANIIDAE (Shrikes)
*Loggerhead Shrike (*Lanius ludovicianus*)
FAMILY: CORVIDAE (Jays, Magpies, and Crows)
American Crow (*Corvus brachyrhynchos*)
Common Raven (*Corvus corax*)
FAMILY: ALAUDIDAE (Larks)
Horned Lark (*Eremophila alpestris*)
FAMILY: HIRUNDINIDAE (Swallows)
Cliff Swallow (*Petrochelidon pyrrhonota*)
Barn Swallow (*Hirundo rustica*)
FAMILY: TURDIDAE
American Robin (*Turdus migratorius*)
FAMILY: MIMIDAE (Mockingbirds and Thrashers)
Northern Mockingbird (*Mimus polyglottos*)
FAMILY: STURNIDAE (Starlings)
European Starling (*Sturnus vulgaris*)

FAMILY: MOTACILLIDAE (Wagtails and Pipits)
American Pipit (*Anthus rubescens*)
FAMILY: PARULIDAE (Wood Warblers and Relatives)
Yellow-rumped Warbler (*Dendroica coronata*)
FAMILY: EMBERIZIDAE (Sparrows and Relatives)
*Savannah Sparrow (*Passerculus sandwichensis*)
White-crowned Sparrow (*Zonotrichia leucophrys*)
FAMILY: ICTERIDAE (Blackbirds, Orioles and Allies)
Red-winged Blackbird (*Agelaius phoeniceus*)
Tricolored Blackbird (*Agelaius tricolor*)
*Western Meadowlark (*Sturnella neglecta*)
Brewer's Blackbird (*Euphagus cyanocephalus*)
Great-Tailed Grackle (*Quiscalus mexicanus*)
Brown-headed Cowbird (*Molothrus ater*)
Bullock's Oriole (*Icterus bullockii*)
FAMILY: FRINGILLIDAE (Finches)
House Finch (*Carpodacus mexicanus*)
Lesser Goldfinch (*Carduelis psaltria*)
FAMILY: PASSERIDAE (Old World Sparrows)
House Sparrow (*Passer domesticus*)

CLASS: MAMMALIA (Mammals)
ORDER: DIDELPHIMORPHIA (Marsupials)
FAMILY: DIDELPHIDAE (Opossums)
Virginia Opossum (*Didelphis virginiana*)
ORDER: CHIROPTERA (Bats)
FAMILY: PHYLLOSTOMIDAE (Leaf-nosed Bats)
Southern Long-nosed Bat (*Leptonycteris curasoae*)
FAMILY: VESPERTILIONIDAE (Evening Bats)
Yuma Myotis (*Myotis yumanensis*)
California Myotis (*Myotis californicus*)
Pale Big-eared Bat (*Corynorhinus townsendii pallescens*)
Western Pipistrelle (*Pipistrellus hesperus*)
Big Brown Bat (*Eptesicus fuscus*)
FAMILY: MOLOSSIDAE (Free-tailed Bat)
Brazilian Free-tailed Bat (*Tadarida brasiliensis*)
ORDER: LAGOMORPHA (Rabbits, Hares, and Pikas)
FAMILY: LEPORIDAE (Rabbits and Hares)
Audubon's Cottontail (*Sylvilagus audubonii*)
ORDER: RODENTIA (Rodents)
FAMILY: SCIURIDAE (Squirrels, Chipmunks, and Marmots)
*California Ground Squirrel (*Otospermophilus beecheyi*)
FAMILY: GEOMYIDAE (Pocket Gophers)
*Botta's Pocket Gopher (*Thomomys bottae*)
FAMILY: MURIDAE (Old World Rats and Mice)
Western Harvest Mouse (*Reithrodontomys megalotis*)

Deer Mouse (*Peromyscus maniculatus*)
Norway Rat (*Rattus norvegicus*)
House Mouse (*Mus musculus*)
California Vole (*Microtus californicus*)

ORDER: CARNIVORA (Carnivores)

FAMILY: CANIDAE (Foxes, Wolves, and relatives)

Coyote (*Canis latrans*)
Red Fox (*Vulpes vulpes*)

FAMILY: PROCYONIDAE (Raccoons and relatives)

Raccoon (*Procyon lotor*)

FAMILY: MEPHITIDAE (Skunks)

Striped Skunk (*Mephitis mephitis*)

APPENDIX C: SELECTED SITE PHOTOGRAPHS

Photo 1: Agricultural field on the site with recently cut hay. Photo looking east.

Photo 2: Irrigation ditch and agricultural fields on the site. Photo looking north.

Photo 3: Fallow agricultural field on the site. Photo looking southwest.

Photo 4: Another irrigation ditch at the north end of the site and view of agricultural fields. Photo looking east.

Photo 5: Another irrigation ditch at the east end of the site and view of agricultural fields. Photo looking south.

Photo 6: Ground squirrel burrows in bank of irrigation ditch at the north end of the site. Onsite agricultural fields in background. Photo looking north.

APPENDIX D:
KINGS COUNTY GENERAL PLAN POLICIES

D. Natural Plant and Animal Habitats

Associations of plant species that grow in assemblages under similar ecological conditions are called plant communities (natural communities or habitats). Generally, they are named for the dominant species found in the association. Definition of plant communities is important not only because it identifies types of plants that are present, but also because it indicates habitat types and animal species which may be found in the community.

Figure RC – 16 Foothill Grassland

Kings County, including the four incorporated cities, covers approximately 890,600 acres (1,391 square miles). While the majority of the land in the county has been extensively modified by agricultural, urban, energy, and military-related development, uncultivated plant communities are present on approximately 220,000 acres (343 square miles) or about 25% of the County. Remnant plant communities on those 220,000 acres can be broadly classified into nine categories. The following descriptions of the nine plant communities are based on descriptions in the California Department of Fish and Games "California Natural Diversity Data Base" (CNDDB). Most of the regional biological surveys conducted in the southern San Joaquin Valley follow the plant community classification system developed by Holland (1986). Element Codes follow the numbering system used by CNDDB. The nine plant communities mapped by the CNDDB are (listed in order of decreasing acreage in Kings County):

- Valley and Foothill Grassland. CNDDB's Non-native Grassland (CNDDB Element Code 42200).
- Blue Oak-Foothill Pine Woodland. CNDDB's Digger Pine-Oak Woodland (CNDDB Element Code 71410), Blue Oak Woodland (CNDDB Element Code 71140), Open Digger Pine Woodland (CNDDB Element Code 71310), and Juniper-Oak Cismontane Woodland (CNDDB Element Code 71430).
- Chaparral. CNDDB's Northern Mixed Chaparral (CNDDB Element Code 37110).
- Interior Coast Range Saltbush Scrub. (CNDDB Element Code 36320).
- Riparian Forest, Woodland, and Scrub. CNDDB's Great Valley Valley Oak Riparian Forest (CNDDB Element Code 61430), Great Valley Cottonwood Riparian Forest (CNDDB Element Code 61410), Mule Fat Scrub (CNDDB Element Code 63310), Valley Willow Scrub (CNDDB Element Code 63410), and Tamarisk Scrub (CNDDB Element Code 63810).
- Valley Sink Scrub. (CNDDB Element Code 36210).
- Valley Saltbush Scrub. (CNDDB Element Code 36220).
- Valley Freshwater Marsh. (CNDDB Element Code 52410).
- Northern Claypan Vernal Pool. (CNDDB Element Code 44120).

These plant communities often integrate and co-occur with one another. A complete description of the nine natural communities may be found in the Biological Resources Survey (BRS) located in Appendix C of the 2035 Kings County General Plan. The BRS is intended to expand upon and enhance the *Resource Conservation Element* by providing up to date biological information and a practical planning protocol that will help conserve biological resources, assist the county with their legal requirements as noted in Sections 4.1 through 4.5 of the BRS, and minimize public controversy and time delays in project permitting.

In addition to objective biological information, the BRS presents a range of goals, procedures, and implementation measures designed to guide decision makers in addressing special status species and sensitive habitat issues in Kings County. The BRS offers a variety of mechanisms and strategies which can help guide future decisions by the county to help conserve biological resources. All of the goals, procedures, and implementation measures which are adopted as part of the *2035 Kings County General Plan* will help shape the county's regulatory programs and other actions affecting biological resources.

Preservation of Important Natural Habitats

With the pressure for new development, the number and intensity of land use conflicts with sensitive habitats in the County has increased potential. Land development, including residential, industrial, commercial, mineral and energy projects has resulted in some past removal or disturbance of native plant and animal habitat. Certain types of agricultural developments and practices also have the potential to affect sensitive habitats. As noted in the *Biological Resources Survey*, retention of significant habitats requires further study and continued coordination with a number of resource and regulatory agencies with responsibility for species protection. County policy direction is needed to resolve sensitive habitat conflicts in a predictable and programmatic manner that meets both state and federal requirements for retention of critical habitat, and allows for continued economic development within the County.

Protection and Quality of Natural Wetlands

Valley Freshwater Marsh is a wetland community in Kings County that is characterized by emergent grass-like vegetation (cattails, tulles, and rushes) growing in seasonally or permanently saturated soils. In Kings County, occurrences of marsh type habitat is present primarily in slow moving sloughs and river oxbows.

Figure RC – 17 Vernal Pool

Vernal Pools are another wetland variety occasionally found in the northeast portion of the County in grasslands along Cross Creek. These ephemeral wetlands that form when winter and spring rains fill depressions in hogwallows and mound areas provide habitat for a variety of small plant and animal species. Northern Claypan Vernal Pools, once present along most of the floodplains in the San Joaquin Valley, are now nearly non-existent in Kings County. However, County policies should continue to strive towards maintaining the quality of potential vernal pool sites and other natural wetland areas, and maintain compatible land uses in areas designated natural wetland habitat by state and federal agencies.

Riparian Resources

Figure RC – 18 Kings River Riparian Environment

Areas along natural streams, or adjacent to other natural bodies of water, may be referred to as riparian environments. These areas offer wildlife a rich source of insect and plant food, shelter and nesting sites, and water. The plant cover regulates water temperature and provides a nursery habitat for fish. The riparian environment is especially vulnerable to fluctuations in the water supply. Practices which control water flow or waterway vegetation can change the riparian environment while attaining essential water delivery and flood control functions for the public good. Plants and trees serve as filters for sediment and pesticides, stabilize banks, and keep soils loose and permeable, allowing aquifers below streams to be recharged. Elimination of natural plant communities along streams can increase surface runoff and siltation, creating a stream environment detrimental to fish. Riparian communities in Kings County are quite diverse. Five categories of such communities occur, distinguished by the dominant tree and shrub species:

- Great Valley Valley Oak Riparian Forest
- Great Valley Cottonwood Riparian Forest
- Great Valley Willow Scrub
- Mule Fat Scrub
- Tamarisk Scrub

Riparian communities have been eliminated or seriously altered throughout much of their original extent in Kings County. However, as much as the local hydrology has changed, the Kings River, Cross Creek, the Kern River channel, and other lesser streams still support riparian vegetation – vegetation that is quite rich and healthy where it has not been greatly disturbed. The best remaining examples of undisturbed riparian forest in the County occur along the Kings River and on smaller channels within the Kings River floodplain.

Protecting and managing these riparian communities as valuable resources is an important responsibility that is shared with resource agencies and special districts. County land use decisions affecting riparian environments need to balance public health, safety and economic considerations with the important habitat and scenic values associated with riparian environments.

E. Threatened and Endangered Species

Special status species are plants and animals (including invertebrates and fish) that have highly restricted distribution or are few in number, such that they are vulnerable to population reductions and possible extinction due to human activities. Many such species occur in Kings County. Most special status species are protected in some manner by state and/or federal law or regulation. Certain activities that may affect these species may be prohibited or subject to regulation. Special status species are an integral part of the natural ecosystem, contributing to the productivity and diversity of the natural world, upon which we depend for resources and amenities. In addition, they enrich the natural heritage of Kings County and California as a whole.

The Biological Resources Survey, conducted as part of this general plan, identified 90 special status species. This is an increase of 28 special status species since the last survey was conducted for the 1993 General Plan. One previously listed plant species in the Kings County area (Hoover's Eriastrum) has also been removed from the threatened and endangered species list. A complete description and location of the special status species currently found in Kings County can be found in the Biological Resources Survey attached as Appendix C of this General Plan.

Sensitive Species Consideration In Development Project Review

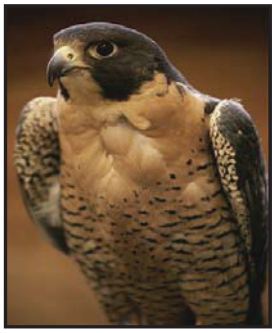
Kings County's threatened, endangered, and other special status species are indicators of the County's overall environmental health. The County's Biological Resources Survey has identified 18 threatened or endangered wildlife species, including such commonly known species as Blunt-nosed Leopard Lizard, California Condor, American Peregrine Falcon, Tipton Kangaroo Rat, San Joaquin Kit Fox, Valley Elderberry Longhorn Beetle, Swainson's Hawk, San Joaquin Antelope Squirrel, and Vernal Pool Fairy Shrimp. The Survey also identifies two federally listed plant species, the California Jewel-flower and San Joaquin Woolythreads. Sensitive habitats also include native oaks and native trees associated with the County's rivers, creeks, and streams.

Figure RC – 19 Various Threatened or Endangered Wildlife Species Found in Kings County

Blunt Nosed Leopard Lizard

San Joaquin Kit Fox

Peregrine Falcon



Elderberry Longhorn Beetle

Future land use conflicts with special status species in the County are most likely to occur in the following areas:

- The fringes of agriculture lands adjacent to native lands within the valley floor.
- Within and adjacent to oilfields on the west side.
- Undeveloped native lands west of the California Aqueduct and along the edge of the Tulare Lake Basin (vicinity of Sand Ridge and Dudley Ridge).
- Urban, residential, and industrial expansion in growth areas on the outskirts of Avenal and Kettleman City.

At issue is how to balance the needs and activity of an increasing human population with protection for the County's unique and exhaustible natural resources. As projects move through the County's development review process, assurances are needed that threatened or endangered species habitat locations are properly identified and considered, and where potential conflicts arise, avoidance measures or other appropriate mitigation solutions consistent with regulatory agency requirements are applied.

Figure RC- 20 Listed Plant Species Sightings

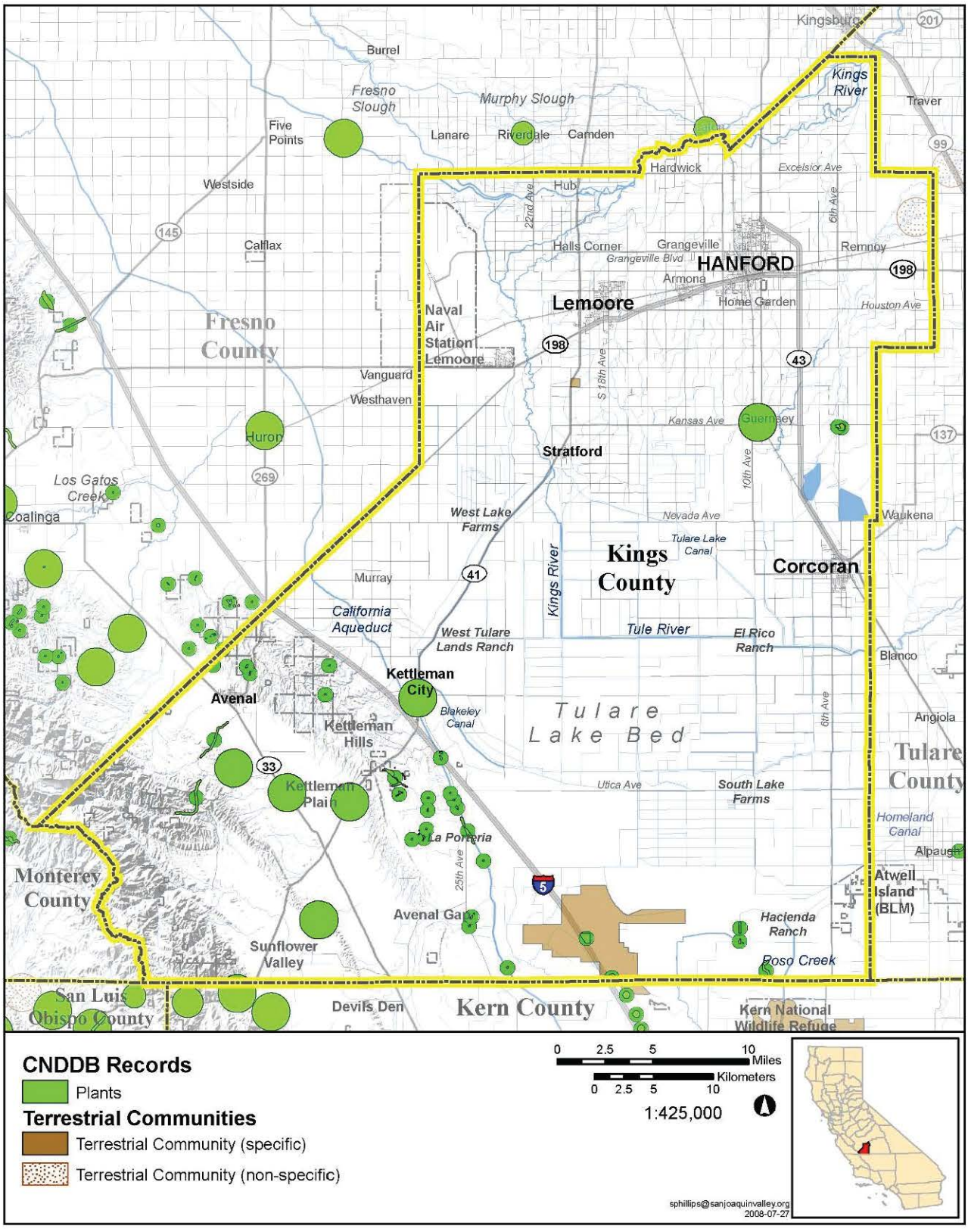
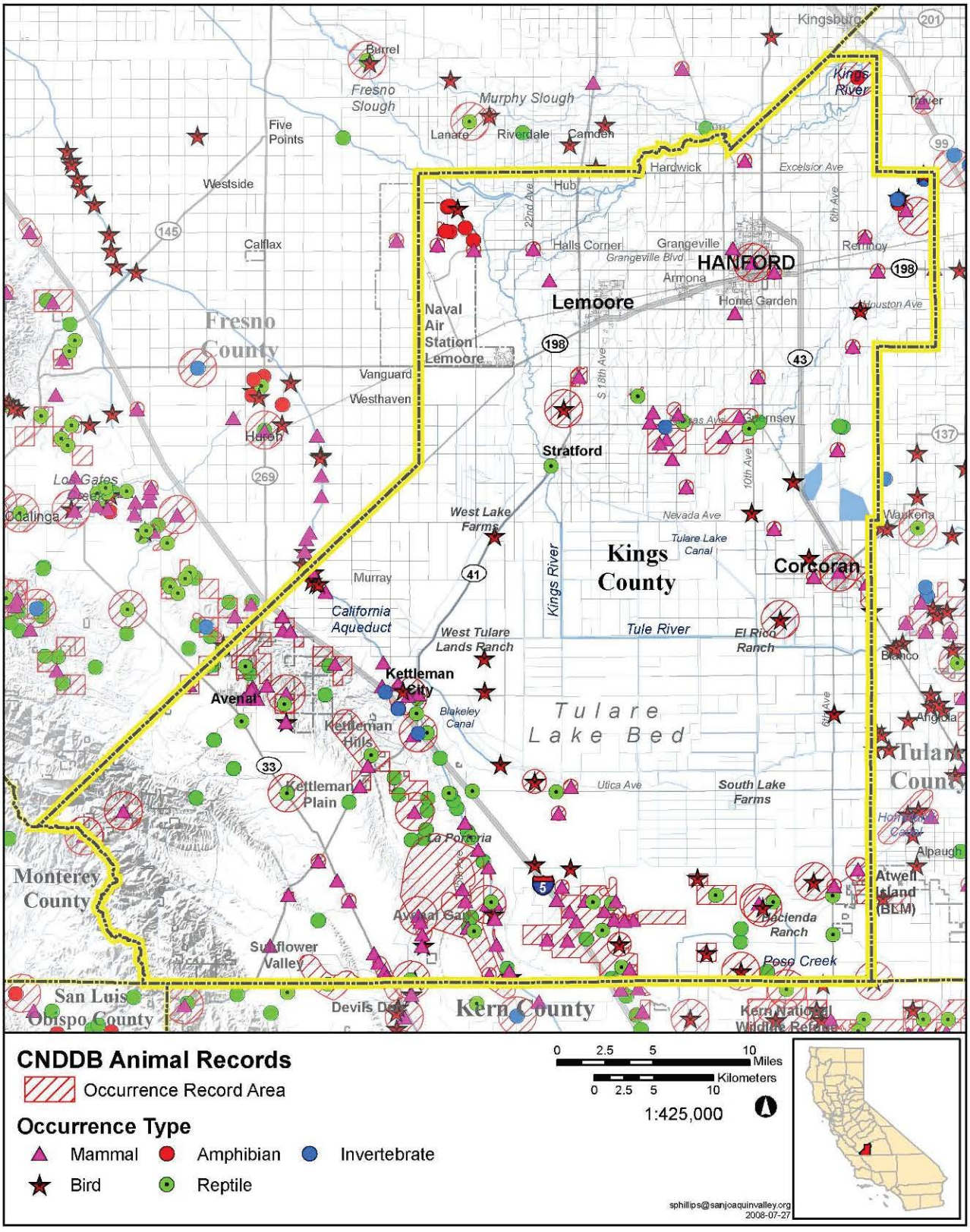


Figure RC- 21 Listed Animal Species Sightings



F. Freshwater Recreational Fishing

Recreational fishing in Kings County occurs primarily along the banks of the Kings River, which is administered by the State Reclamation Board. Three additional locations along the California Aqueduct are also maintained by the County. One near Kettleman City and another near the Avenal Cutoff. Few public boat launching sites exist along the Kings River in Kings County.

Managing Natural Watercourses to Preserve Fish Habitat

Agriculture, water diversion, and land development activities that impact the Kings River and the California Aqueduct have the potential to reduce recreational fishing resources. Sedimentation, loss of riparian vegetation, and stream bank erosion can also damage recreational fishing habitat. The County can support resource agencies, conservation districts and associations whose interests include management of the County's streams to preserve recreational fishing opportunities by encouraging design of public and private projects that will minimize impacts to the Kings River and other significant watercourses. The County's coordination of public and private volunteer efforts to clean the Kings River channel should continue to maintain the health of this vital waterway resource. In March 2009, approximately 2000 volunteers were instrumental in the Kings River Cleanup event that removed 51.25 tons of garbage and other debris.

G. Energy

Oil and gas production in Kings County has diminished over the past 40 years and the trend continues. Although the County's future energy production is likely to emphasize alternative energy sources that avoid or minimize production of greenhouse gases, new oil and gas sources should be allowed where environmental quality will not be degraded and where well sites can be restored to a pre-drilling condition at completion of their useful life.

Renewable Energy Sources and Conservation

Figure RC – 22 Renewable Energy

The County's mild climate and agricultural economy make solar heating and waste-to-energy projects viable alternatives to traditional fossil fuel production sources. Sources of biomass, or raw material suitable for conversion to energy, include manure from dairy operations and municipal waste at landfill sites. To improve air quality and achieve greenhouse gas emissions reductions mandated by recent State legislation (AB 32), sustainable and renewable alternative energy sources including wind, solar, hydroelectric and biomass energy can be promoted, and energy conservation measures encouraged. The construction of commercial solar farms in agriculturally zoned land is a conditional use in Kings County, and should be directed to lower priority farmland. Future consideration should explore standards to streamline permiting under the site plan review process.

H. Mineral Resources

Few commercial mining and mineral extraction activities occur in Kings County. Currently, only limited excavation of soil, sand and some gravel is excavated for commercial use. In 2009, the County had only one surface mining permit for a non-active gravel operation, and two agricultural reclamation sites that were fully reclaimed. Historical local mines that are now closed include an open

Appendix C

Cultural Resources Report

Cultural Resources Assessment for the Sandridge Cattle Project, Kings County, California

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October 2021

USGS Lemoore 7.5' topographic quadrangle;
240 total project acres; 240 acres surveyed
Keywords: Lateral 10; Ditch; Lemoore Canal; Santa Rosa Rancheria; Tachi Yokuts; Tulare Lake

MANAGEMENT SUMMARY

Taylored Archaeology completed a cultural resource assessment for the Sandridge Cattle Project in Kings County, California. The purpose of this assessment is to identify potential cultural resources on the ground surface in the 240-acres Project boundary. The Project proposes to construct a cattle feedlot, harvesting plant and associated improvements in an unincorporated area south of the City of Lemoore. The Project is subject to evaluation under the California Environmental Quality Act (CEQA).

This report discusses the methods and results of the Phase I cultural resource assessment of the Project area. Taylored Archaeology conducted the assessment to determine whether prehistoric and historic resources will be affected by the Project. The investigation included: (1) literature review and a records search; (2) a request of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) including the tribal representatives' contact information, and nongovernmental tribal outreach; (3) archival research; (4) an archaeological pedestrian survey; and (5) documentation of resources identified with the Project boundary using California Department of Parks and Recreation 523 series record forms.

The literature and records search results from Southern San Joaquin Valley Information Center indicated that there have been no previous cultural resource investigations conducted within the Project area. The records search identified no known cultural resources within the Project area or within a 0.5-mile radius surrounding area and identified six cultural resource investigations conducted within a 0.5-mile radius. However, a review of report KI-00033 revealed a prehistoric cultural resource potentially located within 0.5 miles from the Project site. The prehistoric cultural resource (P-16-000233) was a prehistoric burial and associated artifacts excavated in 1962.

The results of the SLF search were positive and the NAHC recommended contacting the Santa Rosa Rancheria Tachi Yokut Tribe. Taylored Archaeology contacted the Santa Rosa Rancheria Tachi Yokut Tribe and additional Tribal representatives on the contact list provided by the NAHC. The Santa Rosa Rancheria Tachi Yokut Tribe requested to discuss the Project with Kings County, the Lead Agency.

No prehistoric resources were identified during the archaeological pedestrian survey. One historic resource, Latera 10 of the Lemoore Canal, was identified in the Project boundary during the survey. The segment of Lateral 10 within the Project boundary was evaluated and not found eligible for inclusion within the California Register of Historical Resource. If the greater Lemoore Canal system is evaluated at a later date and found to be eligible for inclusion in the National Register of Historic Places (NRHP), then Lateral 10 may be potentially eligible for listing in the NRHP if it is found to be a contributor to the potential historical eligibility of the Lemoore Canal system.

Due to the very high prehistoric archaeological sensitivity of the Project site, Taylored Archaeology recommends the presence of archaeological and Native American monitors during all Project ground disturbing activities.

CONTENTS

APPENDICIES

FIGURES

1
INTRODUCTION

Taylored Archaeology performed a Phase I cultural resource assessment for the Sandridge Cattle Project (Project) in unincorporated Kings County, California (Figure 1). The Project lies south of the City of Lemoore, south of Highway 198 and west of Highway 41 and north of Jackson Avenue. The proposed Project is within Sections 16, 20, 21 of Township 19 South, Range 20 East, Mount Diablo Base Line and Meridian of Lemoore, California 7.5- minute USGS quadrangle.

The Project will be working with agencies Kings County, California Department of Food and Agriculture and United States Department of Agriculture to ensure that the cattle feedlot and beef harvesting facilities will meet the permitting and building code requirements including the industry and environmental regulatory requirements. In addition, the Kings County must comply with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] 21000 [g] mandate that government agencies consider the impacts of their actions on the environment, which includes cultural resources.

1.1 PROJECT DESCRIPTION

The proposed Project will involve construction and operating a cattle feedlot and beef harvesting plant on approximately 240-acre agricultural land. At capacity, the cattle feedlot will be designed for 12,000 cattle. Additionally, the Project will include truck scale and weigh station, barns and equipment shop, employee parking, silage pad and lagoon run-off area, and manure stocking area and basin.

1.2 REGULATORY SETTING

Cultural resources within the context of this report are defined as a historical or prehistorical archaeological site, or a historical structure, object, or building. Consistent with 36 CFR 60.3, the term "historical" in this report applies to archaeological remains and artifacts, and additionally to buildings, objects, or structures that are at least 50 years old. While exceptions to the 50-year criterion occur, they are relatively rare. The significance or importance of a cultural resource is dependent upon whether the resource qualifies for inclusion at the local or state in the California Register of Historical Places (CRHR). Cultural resources that are determined to be eligible for inclusion in the CRHR are called "historical resources" (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).

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 California Register of Historical Resources. 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.

According to CEQA guidelines §15064.5 (a)(3), criteria for listing on the California Register of Historical Resources 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.

According to CEQA guidelines §21074 (a)(1)(2), 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.

1.3 PROFESSIONAL QUALIFICATIONS

Archaeologist Consuelo Y. Sauls (M.A.), a Registered Professional Archaeologist (RPA 41591505), served as project manager, providing technical and administrative oversight for all cultural resource tasks conducted, and as report author for the Project study. Ms. Sauls meets the Secretary of the Interior's Standards for Professional Qualifications in Archaeology. Ms. Sauls, Sarah E. Johnston (M.A.) Archaeologist and Justin Brady (A.S.) completed the archaeological survey. Qualifications for key personnel is provided in Appendix A.

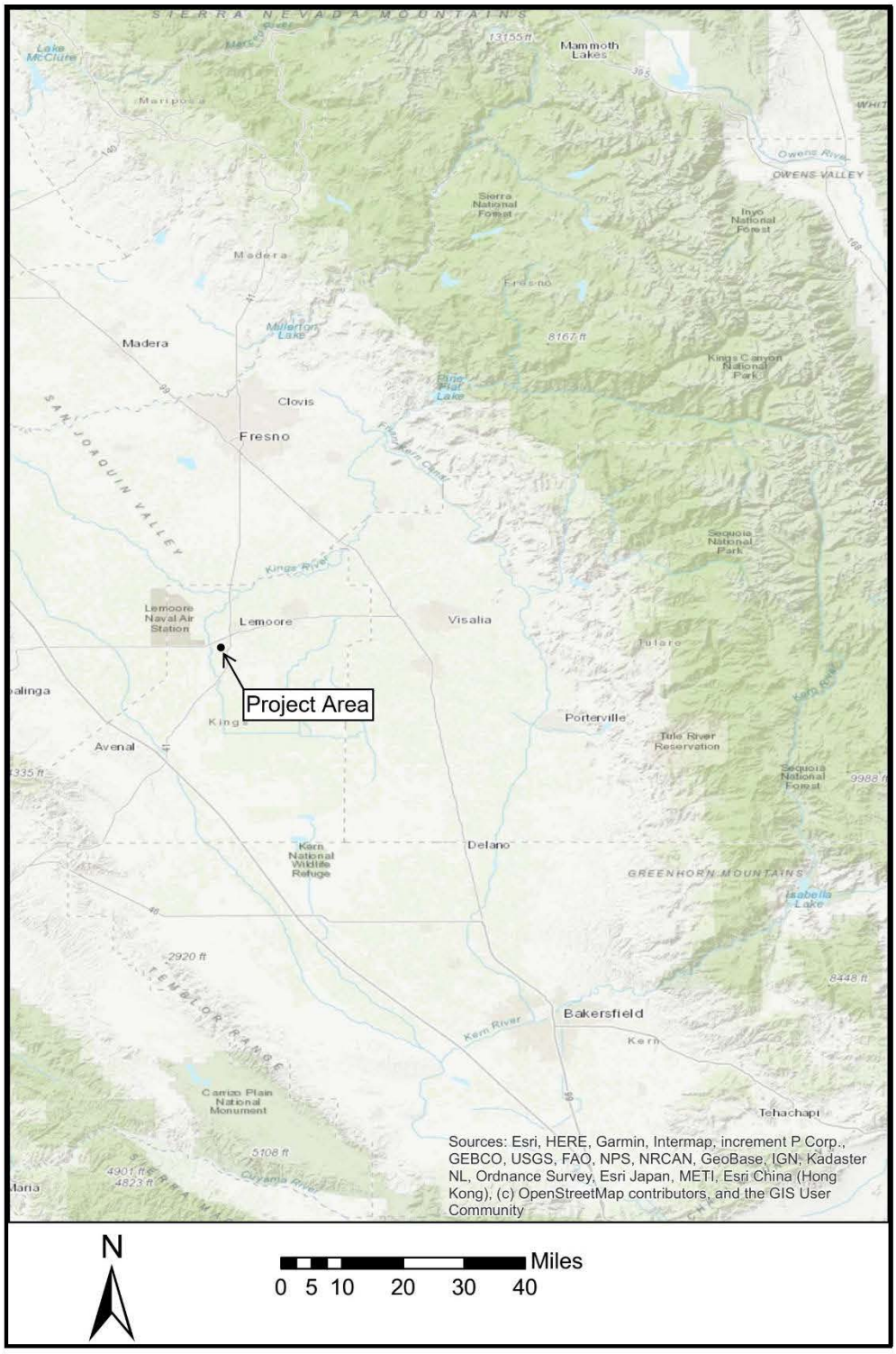

Figure 1-1 Project vicinity in Kings County, California.

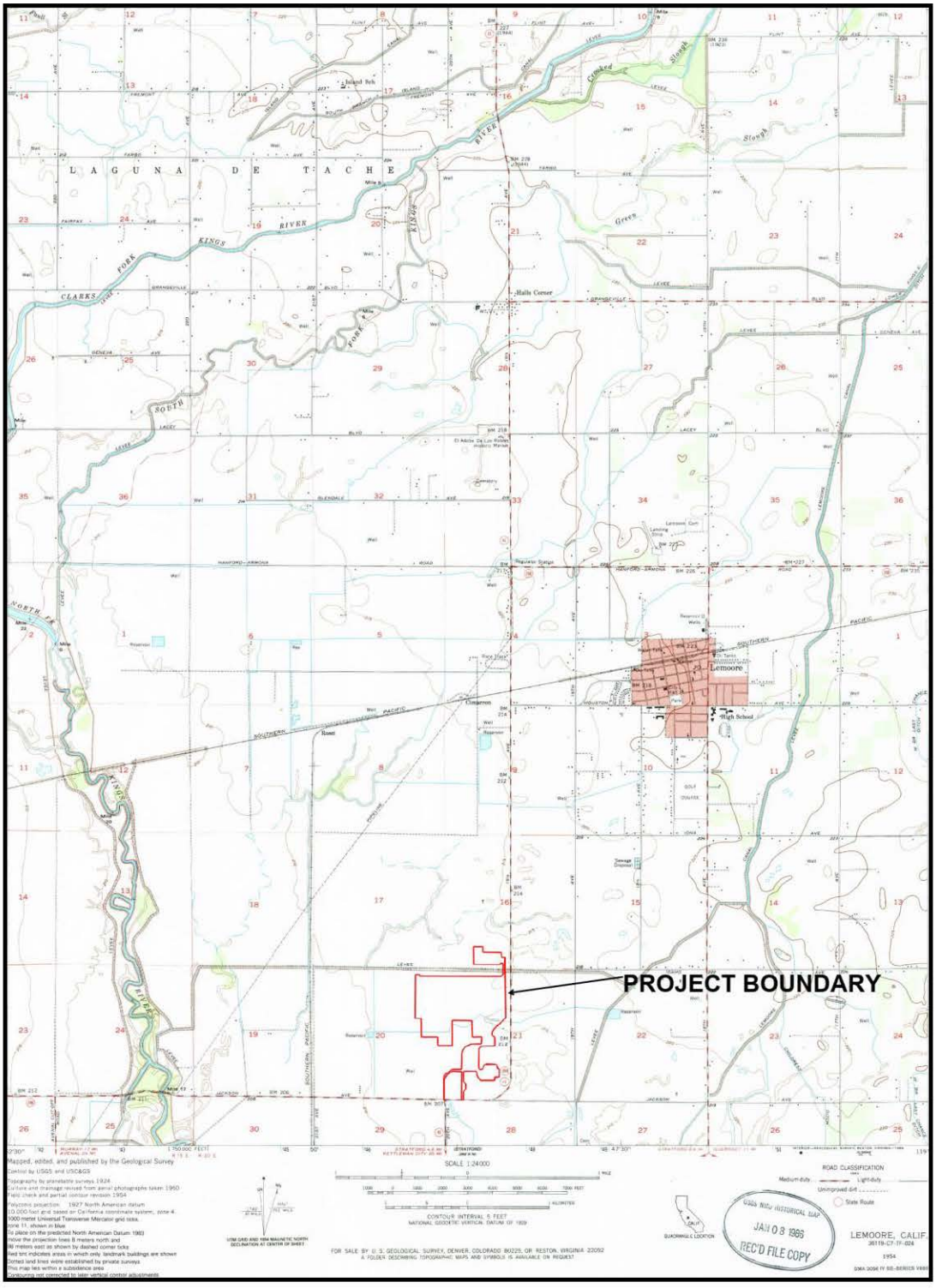

Figure 1-2 Project location on the USGS Lemoore, CA 7.5-minute quadrangle.

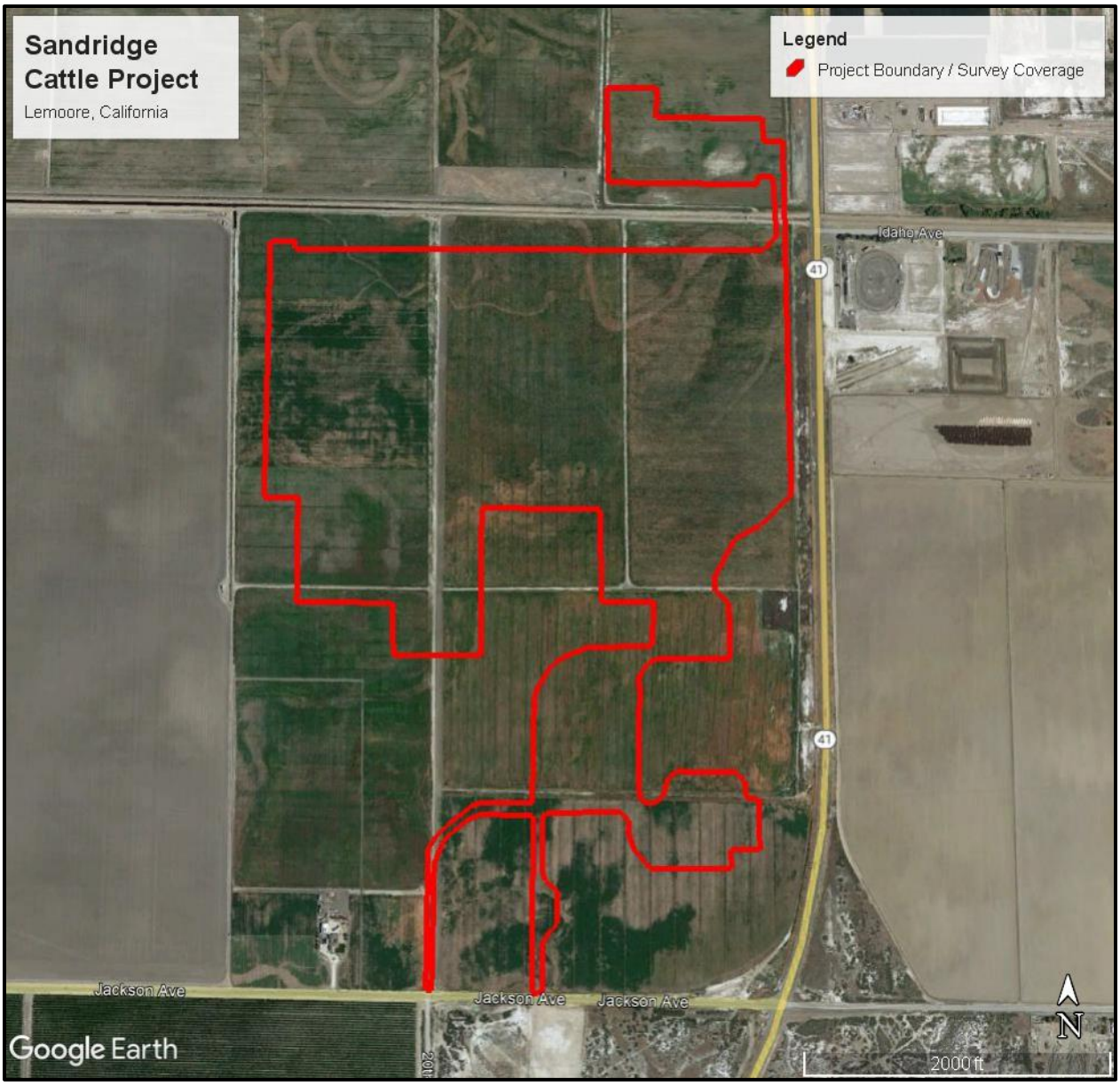

Figure 1-3 Aerial view of the Project boundary showing survey coverage.

1.4 REPORT ORGANIZATION

This report documents the results of a cultural resource assessment of the proposed Project area. In order to comply with California regulations for CEQA, 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.

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 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 ethnohistoric background for the Project area and surrounding area. Chapters 3 and 4 includes the methods and findings of the archival studies, Native American outreach, and pedestrian survey. Chapter 5 discusses the Project findings 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), and Taylored Archaeology's nongovernmental Native American outreach (Appendix C) and (5) California Department of Parks and Recreation (DPR) 523 series record forms for recorded cultural resources (Appendix D).

2
PROJECT SETTING

2.1 NATURAL ENVIRONMENT

The Project site is in Kings County in the San Joaquin Valley, the southern half of the Central Valley. which is approximately 450 miles long from north to south, and ranges in width from 40 to 60 miles east to west (Prothero 2017). The Central Valley is a 60-mile-wide lowland that extends approximately 450 miles long north to south (Prothero 2017). The Central Valley is divided into two subunits named after the primary rivers within the area, the Sacramento Valley in the north and the San Joaquin Valley in the south. The Project area is located approximately 315 feet above sea level on the open flat plains of the Southern San Joaquin Valley. The San Joaquin Valley is a comprised of a structural trough created approximately 65 million years ago and is filled with nearly 6 miles of sediment (Bull 1964). The San Joaquin Valley ranges from Stockton and San Joaquin-Sacramento River Delta in the north to Wheeler Ridge to the south, ranging nearly sixty miles wide at its widest. 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). Kings County 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 from 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 tributary rivers 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 is in northern Kings County on the valley floor of the San Joaquin Valley, within the drainage area of the South Fork of the Kings River, and near the northern shore of the former Tulare Lake (Baker 1876). Specifically, the project is located 2 miles east of the South Fork of the Kings River. Before the appearance of agriculture in the nineteenth century, the Project location would have been comprised of tule marshlands in low lying areas, and prairie grasslands with scatter 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 region around Tulare Lake was largely dominated by marshlands, rivers, sloughs, and annual grasslands. Historically, these habitats provided a lush environment for large animals, including various migratory birds and other waterfowl, grizzly bear (*Ursus arctos californicus*), tule elk (*Cervus* sp.), pronghorn (*Antilocapra americana*), mule deer (*Odocoileus hemionus*), black bear (*Ursus americanus*), and mountain lion (*Puma concolor*) (Preston 1981). Native trees and plants observed in the Project vicinity include various blue, live, and white oaks (*Quercus* sp.), cottonwood (*Populus aegiros*), and willow (*Salix* sp.). The introduction of agriculture to region resulted in large animals being forced out of their habitat. Common land mammals now include valley coyote (*Canis latrans*), bobcat (*Lynx rufus*), gray fox, kit fox (*Vulpes macrotis*), and rabbits (Leporidae). Rivers and lakes throughout the valley provide habitat for freshwater fish, including

rainbow trout (*Oncorhynchus mykiss*), Sacramento sucker (*Catostomidae* sp.), and Sacramento perch (*Archoplites interruptus*), (Preston 1981).

2.2 PREHISTORIC SETTING

To better understand the past, archaeologists develop models of prehistoric resource chronologies and description of lifestyles based on data collected at the archaeological sites they investigate. Models of prehistoric life patterns are developed from both archaeological and ethnographic research. Within archaeology, models of prehistoric lifestyles are based on data collected from archaeological sites. The Southern San Joaquin Valley is of one of the least understood areas within California (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). Much of the early to middle Holocene archaeological sites may have been as deep as 10 meters due to millennia of erosion and alluvial deposits from the western Sierras.

Agricultural activities have 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). Riddell suggested that potentially as much as 90 percent of all Central California archaeological sites have been destroyed (Riddell 2002).

The cultural traits and chronologies which are summarized below are largely based upon information discussed in multiple sources, including Bennyhoff and Fredrickson (Fredrickson 1973, 1974), Garfinkel (2015), McGuire and Garfinkel (1980), and Rosenthal et al. (2007).

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 red. 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, 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), 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 Project area is near the former Tulare Lake in the Southern Valley Yokuts ethnographic territory of the San Joaquin Valley. Tulare Lake was known for being the center of the one of the densest Native American populations within western North America, supporting a population in the tens of thousands (Preston 1989). 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 were generally divided into three major groups, the Northern Valley Yokuts, the Southern Valley Yokuts, and the Foothill Yokuts.

The Yokuts have been extensively researched and recorded by ethnographers, including Powers (1877), Kroeber (1925), Gifford and Schenck (1926, 1929), Gayton (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 tries 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. According to Krober's ethnographic research, three tribes were located along the shores of Tulare Lake. From south to north they were the Wowol, Chunut, and Tachi (Krober 1925). The Tachi were arguably the largest of all Yokut groups, and their territory centered along the northern shores of Tulare Lake, from Fish Slough in the east to the Coastal Range in the west.

Based upon Kroeber's map of Southern and Central Yokuts (1925: Plate 47), the Project area is within the Tachi Yokuts territory. The closest village for this area was *Waiu*, which was located on Mussel Slough approximately 4 miles east of the Project site (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. According to Krober, Tachi Yokuts would often winter near the western hills of the valley near

present-day Coalinga, and cross to the area around present-day Lemoore during the summer. Tachi Yokuts were known for using controlled burns to actively maintain tule grass marshlands for hunting and land management practices and utilizing the tule reeds for numerous uses such as reed boats, basketry, footwear, and more (Anderson 2005). Yokuts were organized into groups originally designated as tribelets by Kroeber, with one or more linked villages and smaller settlements within a territory (Kroeber 1925). Designation of these units as 'tribelets' is often viewed as pejorative by many Native Americans, and for the remainder of this report will be referred to as 'local tribes' instead. 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.

Prior to Euro-American contact, the Yokuts were one of the densest populations of Native Americans in western North America due to the substantial natural resources surrounding Tulare Lake (Cook 1955). According to the Native American Heritage Commission, the Native American tribal group that is currently associated with the Project area is the Santa Rosa Rancheria Tachi Yokut Tribe.

2.4 HISTORIC SETTING

2.4.1 Central California History

While the California coast saw European contact as early as the 1500s, the San Joaquin valley did not experience contact until the late 1700s (Starr 2007). The earliest exploration of the San Joaquin Valley by Europeans was likely by the Spaniards when in the fall of 1772 when a group known as the Catalonian Volunteers entered into the valley through Tejon Pass in search deserters from the Southern California Missions. However, the group only made it as far north as Buena Vista Lake 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 missions 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. As the valley was still relatively lawless in the 1830s, those drawn to it were often either trappers like Jedediah Smith or horse thieves like Pegleg Smith (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. By 1850, California became a state and Tulare County, which included most of modern-day Kings County, was established in 1853. Kings County was created from the western portion of Tulare County in 1893.

2.4.2 Local History

Dr. Lovern Lee Moore moved to the area of present-day Lemoore in 1871, which was a primarily grazed area north of Tulare Lake with scatter individual farms (City of Lemoore 2008). The area was relatively isolated and the closest settlement with a post office was Grangeville, approximately six miles to the northeast. Dr. Moore surveyed a 10-acre subdivision, and held land auctions in the summer of 1872, founding the City of Lemoore. A post office was granted in 1873 by the US Postal Service and granted the City the name of Lemoore after Dr. Moore.

By 1877, a branch of the Southern Pacific Railroad was extended from Fresno into Tulare and present-day Kings County and reached Lemoore by 1877 (City of Lemoore 2008). With it, the rail line brought an increased in agriculture and farms that 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. One such irrigation system was the Lower Kings River Ditch, later known as the Lemoore Canal, which was financed and constructed in 1872 by M.D. Bush, V.F. Geiseler, R.B. Huey, and other individuals (Menefee and Dodge 1913).

Because 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 a convoluted mess of customs, traditions, and conflicting claims. 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, 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.

The cumulative effect of this explosion of water diversion from the Kings, Kern, Kaweah, and Tule Rivers, which supplied 95 percent of the water, had a devastating effect on Tulare Lake (Adams et al. 2015). Between 1876 and 1885, the northern shoreline of Tulare Lake near the Lower Kings River had receded southwards by five miles (Baker 1876; Hammond 1885). By 1898, the lake had completely dried up (Figure 2-1).

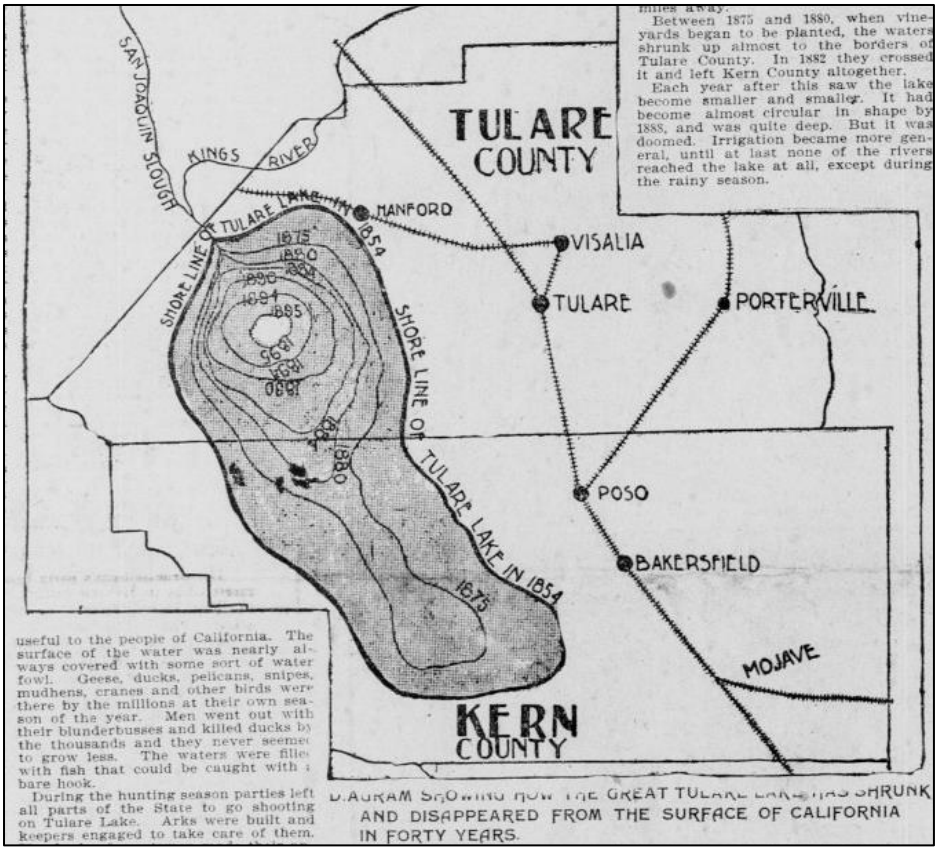

Figure 2-1 1898 map of Tulare Lake showing receding shoreline from 1854 to 1898 (Lee 1898).

The former lakebed was turned into agricultural lands, with water provided by the new canals and ditches (City of Lemoore 2008). One such water provider was the Lemoore Canal and Irrigation Company, which was incorporated in Kings County, California on September 13, 1902. The destruction of the lake was the final blow the Native American populations of the region. In 1934, the Santa Rosa Rancheria was established on 40 acres of desolate farmland approximately 5 miles southwest of present-day Lemoore and consisted of 40 members (Tachi Yokut Tribe 2021).

3
METHODS

3.1 RECORDS SEARCH

On September 13, 2021, Taylored Archaeology requested a copy of prior cultural resource studies reports in the result letter that the SSJVIC of the CHRIS at California State University in Bakersfield, California, provided to 4Creeks. The records search included the Project area and surrounding land within a 0.5-mile radius of the Project. Sources consulted included archaeological site and survey base maps, historical USGS topographic maps, reports of previous investigations, cultural resource records (DPR forms) as well as listings of the Historic Properties Directory of the Office of Historic Preservation, General Land Office Maps, Archaeological Determinations of Eligibility, and the California Inventory of Historic Resources (Appendix B).

3.2 ARCHIVAL RESEARCH

Taylored Archeology conducted archival research of historical maps, historical aerial photographs, historical US Geological Survey (USGS) topographic maps, Google Earth aerial photographs, Google Street View photos, books, articles and other records regarding the prehistory and history of the Project area. The results of this research are presented in Chapter 4.

3.3 NATIVE AMERICAN OUTREACH

Taylored Archaeology sent a request to the Native American Heritage Commission (NAHC) for a Sacred Lands File (SLF) search, to determine if any known Native American cultural properties (e.g., places of religious, sacred activity or traditional use or gathering areas) are present within the Project area. The NAHC also included contact information for local Native American tribal representatives who may have knowledge or interest in sharing information of resources of sacred or spiritual significance in the Project area and surrounding area.

3.4 PEDESTRIAN SURVEY

On October 2, 2021, Archaeologist Consuelo Sauls and Sarah Johnston conducted an archaeological pedestrian survey of the Project site. Sarah Johnston and Justin Brady surveyed the remainder of the Project site from October 5 to 7, 2021. The whole area in the Project boundary was accessible and surveyed to identify any cultural resource features related to Native American or historic-era occupation which may be present on the ground surface. Additionally, the survey sought to identify potential historical features, structures, and artifacts more than 50 years old.

For the southern portion by Jackson Avenue was surveyed by walking 5 zig zag transects to fill in small, previously unsurveyed areas and systematic transects spaced 15-20 meters at larger areas at the southern portion of the site by Jackson Avenue. In the northern portion of the site systematic transects 30-40 meters apart for the rest of the remainder of the site. Plan maps and visible landmarks, and Gaia GPS application and Garmin model GPS map 62stc unit were used for navigation to locate and survey the Project area. The surveyors photographed the survey area using an iPhone 11 Pro and LG Aristro Android digital camera.

4
FINDINGS

4.1 RECORDS SEARCH

On September 27, 2021, the SSJVIC responded to Taylored Archaeology's records search request and provided the results (Records Search File No. 21-341; Appendix B). The records search results stated that no previous cultural resources within the project area and within 0.5-mile radius were identified. However, there were four prior cultural resource studies within the project area and six cultural resource studies within a 0.5-mile radius of the Project area.

Further review of report KI-00033 revealed a prehistoric cultural resource approximately 0.5 miles from the Project site. The prehistoric cultural resource (P-16-000233) was a prehistoric burial and associated artifacts excavated in 1962.

According to KI-00238, a prehistoric archaeological sensitivity model for the San Joaquin Valley, based on various geographic factors such as water proximity, slope, soil type, and landform; the Project site is located within an area of very high sensitivity for the potential presence of buried prehistoric archaeological deposits (Meyer et al 2010). This corresponds well P-16-000233's location within 0.5 miles of the Project site.

4.2 ARCHIVAL RESEARCH

Historical map coverage of the project site dates back to 1876. An 1876 map of Tulare County, which then covered modern-day Kings County, shows the project site in Township 19 South, Range 20 East, Sections 16, 20, and 21 located at the northern short of Tulare Lake, and owned by a J. Heinlen.

An 1877 map of the West Side Irrigation District and Tulare Lake show the general Project area as located near the north short of Tulare Lake within a marshy overflow area between the south fork of the Kings River and Mussel Creek.

An 1885 irrigation map of the region show the Project site as owned by a J. Heinlin, and with Section 20 intersected by multiple natural drainages flowing to the southwest towards the Kings River. The map shown an unnamed ditch terminating within the general Project boundary in Sections 16 and 21, flowing from the northeast. The map depicts the unnamed ditch as a branch of another unnamed ditch which flows through the town of Lemoore to the north, which in turn is depicted as originating from the Lower Kings River Canal to the northwest of the town of Lemoore. The 1885 irrigation map marks a road at the southern boundary of the Project site corresponding with modern-day Jacobs Avenue, leading to the Chisolm Ferry along the Kings River approximately 2 miles west of the southern boundary of the Project site. Finally, the map depicts the center of Sections 16 and 21 as a "Swamp and Overflow Segregation Line".

An 1892 detailed map of Township 19 South, Range 20 East show the project area in Sections 16, 20, and 21 as owned by a John Heinlen. The map additionally shows the ditch previously described in the 1885 map as the "Heinlen Ditch". This ditch is shown as crossing the Project area from east

to west. The map additionally depicts the eastern edge of the Project boundary as "Original Lake Line" and shows an artisanal well in the northern portion of the Project site as well as a structure of unknown details. The map also portrays an "Old Indian Cemetery" in the approximate location of the modern-day Santa Rosa Rancheria Cemetery located 0.75 miles southeast of the Project site.

A search of USGS topographic maps showed the Project site showed mostly agricultural land in 1927. The USGS Lemoore, CA 7.5-minute 1927 topographic map showed Lateral 10 of the Lemoore Canal crossing the northern portion of the Project boundary from east to west, and the Heinlen Ditch crossing the central portion of the Project site from east to west. The USGS Lemoore, CA 7.5-minute 1957 topographic map shows both the Lateral 10 and the Heinlen Ditch, though a southwestern branch of the Heinlen Ditch is no longer shown. The map additionally notes a levee along Lateral 10.

Historical aerial photography of the Project site was only available from 1985 to present day. Aerial photography from 1985 was not detailed enough to show anything other than general agricultural land within the Project site. Detailed aerial photographs were available from 1994 and onward. Aerial photographs between 1994 and 2021 show the presence of private ditches that would change location with frequency. None of the private ditches are present in the most recently available aerial photography dating April 27, 2021. Land use of the Project site from 1994 to present day remained consistent of low-lying row crops. Lateral 10 remained in its historical and present alignment in all available historical aerial photographs.

4.2.1 Historic Outreach

On October 11, 2021, Taylored Archaeology contacted Mr. Danny Draper of Lemoore Canal and Irrigation Company by phone. Mr. Draper stated that the ditch that runs north to south in the Project site is only 6 months old and is a privately owned by Sandridge Farms and is an unnamed ditch.

The private unnamed ditch does not show on the most recent Google Earth aerial photographs dating April 27, 2021, confirming Mr. Draper's statement that the private canal is less than 6 months old. Therefore, the unnamed ditch is less than 50 years old and not historical.

Mr. Draper also confirmed the ditch running from east to west is Lateral 10 of the Lemoore Canal. The Lateral 10 is over 100 years old however, Mr. Draper stated that he does not know its exact age and to his knowledge, the ditch has not changed in the last 42 years.

4.3 NATIVE AMERICAN OUTREACH

In an August 18, 2021, response to 4Creeks' request for information, the NAHC's Sacred Lands File results were positive (see Appendix C). The NAHC recommended to contact the Santa Rosa Rancheria Tachi Yokut Tribe on the list of Native American tribes and individuals culturally affiliated with the Project area. The Santa Rosa Rancheria Tachi Yokut Tribe was contacted via letter and email. Other tribes on the NAHC contact list were also contacted via letter, with email follow-up. There were two email replies to Taylored Archaeology's September 23, 2021, tribal outreach letters: one from Cultural Resource Director Bob Pennell of Table Mountain Rancheria and the other from Cultural Specialist II Samantha McCarty of Santa Rosa Rancheria Tachi-Yokut Tribe on October 8, 2021. Pennell stated that the Project area falls outside of the Tribes area of cultural interest and suggested to contact the Santa Rosa Rancheria Tachi Yokut Tribe. McCarty

requested to discuss the Project with the lead agency (Appendix C). No information was shared by tribal representatives that identified tribal cultural resources.

4.4 PEDESTRIAN SURVEY RESULTS

On October 2 and October 5-7, 2021, archaeologists conducted an intensive archaeological survey of the 240-acre Project boundary. The landscape on the Project site consisted primarily of harvested hay field (Figure 4-1). The first surveyed area was the southern third of the project site, which consisted of the harvested hay field west of Highway 41 and approximately 0 to 0.4 miles north of Jackson Avenue. The ground visibility ranged from good to poor in some areas of the Project boundary. Areas where hay was harvested at the Project site at the time of survey was good (70 to 80 percent), and in recently disturbed areas cleared of vegetation such as dirt access roads and canal shoulders (Figure 4-2) the ground visibility was excellent (100 percent). Areas containing thick brush, and tall weeds had fair to poor (30-50 percent) ground visibility depending on the thickness of vegetation (Figure 4-3).

The only potential historic feature observed was Lateral 10 of the Lemoore Canal located at the northern edge of the Project boundary. No other cultural resources (e.g., lithic debitage, artifacts, or other evidence of prehistoric occupation) were observed during the survey.

The segment of Lateral 10 within the Project boundary (Figure 4-4) is an unaligned earthen irrigation ditch owned and operated by the Lemoore Canal and Irrigation Company. According to historical imagery and maps, this segment of Lateral 10 was constructed sometime between 1892 and 1927. The exact age of this feature is unknown, and the alignment of Lateral 10 has remained unchanged since at least 1927. Water is carried through the feature from a branch of the Lemoore Canal approximately 1 mile to the east of the Project site and is conveyed west along fields until it terminates at the Kings River near Highway 198 approximately 2 miles west of the Project site.

Figure 4-1 South central portion of project site, facing northeast.

Figure 4-2 South central portion of project site, facing east.

Figure 4-3 Northwestern portion of project site, facing south.

Figure 4-4 Northeastern portion of project site, facing west. Lateral 10 in foreground.

5
SUMMARY AND RECOMMENDATION

Taylored Archaeology completed a cultural resource assessment for the Sandridge Cattle Project in Kings County, California. The purpose of this assessment to identify potential cultural resources on the ground surface in the 240-acres Project boundary. The Project proposes to construct a cattle feedlot and harvesting plant designed for cattle, barns, roadways, silage pad, lagoon run-off area and basin in an unincorporated area south of the City of Lemoore.

Taylored Archaeology conducted background research and pedestrian survey of the Project boundary to determine whether prehistoric and historic resources will be affected by the Project. The investigation included: (1) a records search at the SSJVIC; (2) a request of the NAHC Sacred Lands File including the tribal representatives' contact information, and nongovernmental tribal outreach; (3) archival research; (4) an archaeological pedestrian survey; and (5) documentation of resources identified with the Project boundary.

Results from SSJVIC records search indicated that there have been no previous cultural resource investigations conducted within the Project area. The records search did not identify any known cultural resources within the Project area or within a 0.5-mile radius surrounding area but did note six cultural resource investigations conducted within a 0.5-mile radius. A review of report KI-00033 revealed a prehistoric cultural resource potentially located within 0.5 miles from the Project site. The prehistoric cultural resource (P-16-000233) was a prehistoric burial and associated artifacts excavated in 1962.

Since the results from the NAHC Sacred Lands File search was positive, the NAHC recommends contacting the Santa Rosa Rancheria Tachi Yokut Tribe from the contact list provided. It should be noted that the Santa Rosa Rancheria Tachi Yokut Tribe requested to discuss the Project with the Lead Agency.

The archaeological pedestrian survey of the Project site did not identify any prehistoric resources. However, two canals were discovered on the Project site. 1) An unnamed canal that was at least 6 months old and privately owned and 2) A historic-era feature, a canal segment named Lateral 10 of the Lemoore Canal was identified in the Project boundary during the survey. The segment of Lateral 10 within the Project boundary was evaluated and found to not be eligible for inclusion within the CRHR. Additionally, the small bridge over the canal proposed by the Project will not significantly impact the integrity or setting of this historic resource. Therefore, the Project will have a less than significant impact on historical resources.

If the greater Lemoore Canal system is evaluated at a later date and found to be eligible for inclusion in the National Register of Historic Places (NRHP), then Lateral 10 may be potentially eligible for listing in the NRHP if it is found to be a contributor to the potential historical eligibility of the Lemoore Canal system.

Due to the very high prehistoric archaeological sensitivity of the Project site, Taylored Archaeology recommends during ground disturbing activities to have an archaeological monitor. In the event of accidental discovery of unidentified archaeological remains during development or

ground-moving activities in the Project area, all work shall be halted in the immediate vicinity (within a 100-foot radius) until a qualified archaeologist can identify the discovery and assess its significance.

If human remains are uncovered during construction, the Kings 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 Native American Heritage Commission (NAHC) within 24 hours of discovery. The NAHC will then identify the Most Likely Descendent who will 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 meets the Secretary of the Interior's Guidelines for archaeology. Ms. Sauls holds a B.A. in Anthropology from California State University, Fresno and an M.A. in Archaeology from Durham University. She has 12 years' experience as an archaeologist in California, New Jersey, and England. She has conducted pedestrian surveys, supervised Phase I and II surveys, 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 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.

Sarah Johnston, M.A., meets the Secretary of the Interior's Guidelines for archaeology. Ms. Johnston has conducted archaeological investigations professionally for 30 years. She holds a B.A in Anthropology from California State University Sacramento and an M.A. from California State University, Fresno. She served as Principal Archaeologist and Tribal Relations Manager for the Sierra National Forest and the Inyo National Forest. She was an Associate Archaeologist with the Department of Transportation (Caltrans), Central Region, for twelve years and designed numerous survey and excavation programs for large transportation projects. She has conducted hundreds of archaeological investigations in California and Nevada and prepared numerous consultation documents designed for compliance with State and Federal historic preservation laws as well as the National Environmental Policy Act (NEPA).

Justin Brady, A.S., has 17 years' experience conducting archaeological field surveys within Central California. He has an Associates of Science Degree from Willow International Community College and is presently pursuing a Bachelor of Arts in Anthropology from California State University, Fresno. Justin has served as an archaeological technician and monitor for numerous cultural resource and environmental firms, including J&R Environmental Services, Ultra Systems Environmental, Sierra Valley Cultural Planning, and others.

APPENDIX B

Records Search Results

APPENDIX C

Native American Outreach

APPENDIX D

Cultural Resource Record Forms

(CONFIDENTIAL – NOT FOR PUBLIC DISTRIBUTION)

Appendix D

Energy Calculations

Construction Equipment Energy Use

Phase Name	Off Road Equipment Type	Off Road Equipment Unit Amount[1]	Usage Hours Per Day[1]	Horse Power (lbs/sec)[1]	Load Factor[1]	Total Operational Hours	BSFC[2]	Fuel Used (gallons)[3]	MBTU[4]
Site Preparation	Rubber Tired Dozers	3	7	247	0.4	105	0.367	535.55	74.4420962
Site Preparation	Tractors/Loaders/Backhoes	4	6	97	0.37	120	0.408	247.18	34.3574682
Grading	Graders	1	8	187	0.41	64	0.367	253.32	35.2109536
Grading	Rubber Tired Dozers	1	8	247	0.4	64	0.367	326.43	45.3742301
Grading	Excavators	1	8	156	0.38	64	0.367	195.86	27.224538
Grading	Tractors/Loaders/Backhoes	3	7	97	0.37	168	0.408	346.05	48.1004555
Building Construction	Cranes	1	6	231	0.29	1380	0.367	4772.51	663.378534
Building Construction	Forklifts	3	6	89	0.2	4140	0.408	4229.33	587.877438
Building Construction	Generator Sets	1	8	84	0.74	1840	0.408	6564.18	912.421012
Building Construction	Tractors/Loaders/Backhoes	3	6	97	0.37	4140	0.408	8527.57	1185.33265
Building Construction	Welders	3	8	46	0.45	5520	0.408	6557.84	911.540297
Paving	Pavers	1	6	130	0.42	108	0.367	304.42	42.3144547
Paving	Paving Equipment	2	8	132	0.36	288	0.367	706.52	98.2067344
Paving	Rollers	2	7	80	0.38	252	0.408	439.67	61.1139808
Paving	Cement and Mortor Mixers	2	6	9	0.56	216	0.408	62.48	8.68461833
Paving	Tractors/Loaders/Backhoes	1	8	97	0.37	144	0.408	296.61	41.2289619
Architectural Coating	Air Compressors	1	6	78	0.48	108	0.408	232.07	32.2571538
Total								34597.59	4809.07

Construction Phases

PhaseNumber	Phase Name	Phase Type	Phase Start Date[1]	Phase End Date[1]	Num Days Week[1]	Total Number of Days[1]
1	Site Preparation	Site Preparation	3/1/2022	3/7/2022	5	5
2	Grading	Grading	3/7/2022	3/16/2022	5	8
3	Building Construction	Building Construc	3/17/2022	2/1/2023	5	230
4	Paving	Paving	2/6/2023	3/1/2023	5	18
5	Architectural Coating	Architectural Coa	3/1/2023	3/24/2023	5	18

Notes

1. CalEEMod Default Values Used
2. BSFC - Brake Specific Fuel Consumption (pounds per horsepower-hour) – If less than 100 Horsepower = 0.408, if greater than 100 Horsepower = 0.367
3. Fuel Used = Load Factor x Horsepower x Total Operational Hours x BSFC / Unit Conversion
4. MBTU calculated for comparison purposes. Assumed 1 gallon of diesel = 0.139 MBTU

Mobile Energy Use (Construction)

Worker Trips

	Daily Worker Trips[1]	Worker Trip Length[1]	VMT/Day	MPG Factor (EMFAC2017)	Gallons of Gas/Day	# of Days	Total Gallons of Gas	MBTU
Site Preparation	18	10.8	194.4	24.93	7.8	5	39.0	4.526253
Grading	15	10.8	162	24.93	6.5	8	52.0	6.035004
Building Construction	56	10.8	604.8	24.93	24.3	230	5579.8	647.7571
Paving	8	10.8	86.4	24.93	3.5	18	62.4	7.242004
Architectural Coating	1	10.8	10.8	24.93	0.4	18	7.8	0.905251
Total	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**279**	**5740.9**	**666.4656**

Vendor Trips

	Daily Vendor Trips	Vendor Trip Length	VMT/Day	MPG Factor	Gallons of Diesel/Day	# of Days	Total Gallons of Diesel	MBTU
Building Construction	22	7.3	160.6	7.41	21.7	230	4984.88529	692.8991

Fleet Characteristics

	Vehicle Class	Fleet Mix	2024 MPG Factor (EMFAC2017)	Average MPG Factor
Assumed Vehicle Fleet for Workers	LDA	33%	28.46	24.93
	LDT1	33%	23.44	
	LDT2	33%	22.89	
Assumed Vehicle Fleet for Vendor Trips	MHD	50%	8.73	7.41
	HHD	50%	6.09	

Notes
1. CalEEMod Default values used
2. MBTU calculated for comparison purposes. Assumed 1 gallon of gasoline = 0.11609 MBTU

Summary of Energy Use (Construction)

	Off-Road Equipment Fuel (Diesel)		On-Road Vehicle Fuel				Total MBTU
			Diesel		Gasoline		
	Gallons	MMBTU	Gallons	MMBTU	Gallons	MMBTU	
Beefplant	34598	4809	4985	693	5741	666	6168
						Total Construction Energy Use	6168
						Average Annual Construction Energy Use	4112

Mobile Energy Use (Operations)

Total Annual VMT from Project (CalEEMod)	**346,846**

Fleet Mix & Fuel Calculations

Vehicle Class	Proportion of Fleet Mix[1]	Annual VMT by Vehicle Class	Proportion of vehicle class using gas or diesel (EMFAC2017)[2]		Annual VMT by Vehicle Class and Fuel Type		Fuel Efficiency (MPG) by Vehicle Class and Fuel Type (EMFAC2017)		Annual Fuel Use from Project (gallons)		MBTU/Year[3]
			Gas	Diesel	Gas	Diesel	Gas	Diesel	Gas	Diesel	
LDA	0.414162664	143650.7	100%	0%	143364.51	286.15	28.46	42.24	5037.6	6.8	585.8
LDT1	0.042290181	14668.2	100%	0%	14662.19	5.99	23.44	24.68	625.5	0.2	72.6
LDT2	0.139047865	48228.2	100%	0%	48077.65	150.55	22.89	32.12	2100.1	4.7	244.5
MDV	0.169158000	58671.8	98%	2%	57727.53	944.25	18.54	23.57	3113.2	40.1	367.0
LHD1	0.077312129	26815.4	49%	51%	13224.72	13590.68	9.48	15.74	1394.8	863.3	281.9
LHD2	0.017122000	5938.7	27%	73%	1615.26	4323.44	8.48	13.09	190.4	330.4	68.0
MHD	0.020541412	7124.7	18%	82%	1294.66	5830.05	4.74	8.73	273.2	667.6	124.5
HHD	0.089732750	31123.4	0%	100%	8.11	31115.34	3.35	6.09	2.4	5108.1	710.3
OBUS	0.000633000	219.6	65%	35%	143.57	75.99	4.75	6.90	30.3	11.0	5.0
UBUS	0.000190000	65.9	76%	24%	50.23	15.67	8.41	11.19	6.0	1.4	0.9
MCY	0.024959000	8656.9	100%	0%	8656.93	0.00	40.30	NA	214.8	0.0	24.9
SBUS	0.001183000	410.3	37%	63%	153.16	257.16	9.78	8.08	15.7	31.8	6.2
MH	0.003668000	1272.2	66%	34%	838.88	433.35	4.41	9.41	190.2	46.1	28.5
Total	**100.000000%**	**346846.0**			**289817.40**	**57028.60**			**13194.1**	**7111.4**	**2520.2**

Fleet Characteristics

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: County
Region: Kings
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/year for VMT, trips/year for Trips, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

GASOLINE

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT (Annual)	Trips (Annual)	Fuel Consumption (1000 gal/year)	Annual Fuel Consumption (gallons)	MPG
Kings	2024	HHDT	Aggregate	Aggregate	Gasoline	2	69595	5642	20.78	20779	3.35
Kings	2024	LDA	Aggregate	Aggregate	Gasoline	62891	943007371	325924543	33135.62	33135624	28.46
Kings	2024	LDT1	Aggregate	Aggregate	Gasoline	5722	69123876	31894273	2948.74	2948739	23.44
Kings	2024	LDT2	Aggregate	Aggregate	Gasoline	28214	404757831	105810710	17680.41	17680411	22.89
Kings	2024	LHDT1	Aggregate	Aggregate	Gasoline	2719	36105174	26803634	3808.07	3808070	9.48
Kings	2024	LHDT2	Aggregate	Aggregate	Gasoline	342	4509950	4406586	531.73	531729	8.48
Kings	2024	MCY	Aggregate	Aggregate	Gasoline	3376	7016638	6611059	174.10	174104	40.30
Kings	2024	MDV	Aggregate	Aggregate	Gasoline	27960	365147479	106279450	19692.36	19692364	18.54
Kings	2024	MH	Aggregate	Aggregate	Gasoline	376	1225178	30111	277.79	277794	4.41
Kings	2024	MHDT	Aggregate	Aggregate	Gasoline	180	3968196	2764314	837.27	837267	4.74
Kings	2024	OBUS	Aggregate	Aggregate	Gasoline	79	1536311	922982	323.76	323761	4.75
Kings	2024	SBUS	Aggregate	Aggregate	Gasoline	27	630591	109782	64.45	64451	9.78
Tulare	2024	UBUS	Aggregate	Aggregate	Gasoline	12	179850	99041	21.38	21382	8.41

DIESEL

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT (annual)	Trips (annual)	Fuel Consumption (1000 gal/year)	Annual Fuel Consumption (gallons)	MPG
Kings	2024	HHDT	Aggregate	Aggregate	Diesel	4739	267105141	31416840	43849.95	43849950	6.09
Kings	2024	LDA	Aggregate	Aggregate	Diesel	171	1882225	258942	44.56	44562	42.24
Kings	2024	LDT1	Aggregate	Aggregate	Diesel	5	28221	4875	1.14	1143	24.68
Kings	2024	LDT2	Aggregate	Aggregate	Diesel	83	1267427	144618	39.45	39453	32.12
Kings	2024	LHDT1	Aggregate	Aggregate	Diesel	2824	37104296	12964762	2356.84	2356840	15.74
Kings	2024	LHDT2	Aggregate	Aggregate	Diesel	872	12071416	4005740	922.40	922395	13.09
Kings	2024	MDV	Aggregate	Aggregate	Diesel	427	5972717	720591	253.42	253418	23.57
Kings	2024	MH	Aggregate	Aggregate	Diesel	198	632909	7237	67.27	67268	9.41
Kings	2024	MHDT	Aggregate	Aggregate	Diesel	1032	17869402	4406023	2046.25	2046248	8.73
Kings	2024	OBUS	Aggregate	Aggregate	Diesel	31	813109	137029	117.92	117916	6.90
Kings	2024	SBUS	Aggregate	Aggregate	Diesel	136	1058776	719558	130.99	130986	8.08
Kings	2024	UBUS	Aggregate	Aggregate	Diesel	2	56096	3518	5.01	5012	11.19

Notes

1. Used project-specific vehicle fleet mix
2. Proportion of diesel vs. gasoline vehicles calculated based on total annual VMT for each vehicle class
3. MBTU Calculated for comparison purposes. Assumed 1 gallon of gasoline = 0.116090 MBTU and 1 gallong of diesel = 0.139 MBTU

Summary of Energy Use (Operation)

Mobile Fuel Use		
	Gal/Year	**MMBTU**
Beef Plant (Gasoline)	13194	1587
Beef Plant (Diesel)	7111	977
Electricity Use		
	kWh/Year	**MMBTU**
Beef Plant	652778	2227
Natural Gas Use		
	kBTU/Year	**MMBTU**
Beef Plant	35300	35
		MMBTU
Total Operational Energy Use		**4827**

Appendix E

VMT Assessment

PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

Ms. Molly Baumeister
4Creeks
324 South Santa Fe Street, Suite A
Visalia, California 93292

March 10, 2022

Subject: Applicability of Traffic Study dated February 17, 2022
Proposed Sandridge Cattle Beef Harvesting Plant
Northwest of the Intersection of State Route 41 and Jackson Avenue
Kings County, California

Dear Ms. Baumeister:

Peters Engineering Group performed a traffic study for a proposed beef harvesting plant and feedlot and presented the results in a report dated February 17, 2022 (hereinafter referred to as the Traffic Study). We understand that the project description has been modified. The purpose of this letter is to compare the trip generation characteristics of the proposed project with those that were analyzed in the Traffic Study and develop an opinion as to whether a revised traffic study is needed and whether the conclusions of the Traffic Study remain applicable.

The proposed site for the Sandridge Cattle Beef Plant (Project) is located south of Lemoore in Kings County, California and is bordered by State Route (SR) 198 to the north, SR 41 to the east, and Jackson Avenue to the south. The Project proposes two site access driveways connecting to Jackson Avenue, including a deceleration/right-turn lane on westbound Jackson Avenue at the eastern driveway.

The Project includes a beef harvesting plant for 210 head of cattle per day for 250 days per year (52,500 head of cattle per year). Approximately 60 employees will work in the beef harvesting plant with staggered shifts and hours of operation from 6:00 a.m. to 6:00 p.m., Monday through Friday. Three employees will work weekends. It is estimated that approximately three customers per weekday and 10 customers per day on weekends may access the site. The Project is expected to generate up to 13 truckloads per weekday for various items (blood, offal, beef pick-up, cattle delivery).

Data provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition* (TGM), are typically used to estimate the number of trips anticipated to be generated by proposed projects. However, data for beef harvesting facilities are not included the TGM. Therefore, the number of trips expected to be generated by the Project was estimated based on the Project Description. Table 1 presents the annual and average daily trip generation estimates for the Project. It should be noted that the values in Table 1 include the assumption that 10 percent of the employees (six employees) ride to work in another employee's vehicle (carpool). For purposes of the estimates below, it is assumed that there will be 250 working weekdays per year and 104 weekend days per year at the facility.

Table 1
Annual and Daily Project Trip Generation

Vehicle	Truck Axles	Annual Trips		Annual (365-day) Average Daily Trips	
		Entering	Exiting	Entering	Exiting
Employee automobiles	0	13,815	13,815	37.85	37.85
Customer automobiles	0	1,800	1,800	4.93	4.93
Trucks (blood, offal, beef)	5	3,250	3,250	8.90	8.90
Miscellaneous deliveries	2	1,250	1,250	3.42	3.42
Inspectors, nutritionists, veterinarians	0	250	250	0.68	0.68
TOTAL:	**-**	**20,365**	**20,365**	**55.78**	**55.78**
Total automobiles:	**0**	**15,865**	**15,865**	**43.46**	**43.46**
Total 2-axle trucks:	**2**	**1,250**	**1,250**	**3.42**	**3.42**
Total 5-axle trucks:	**5**	**3,250**	**3,250**	**8.90**	**8.90**

Table 2 presents estimates of the Project peak-hour trip generation. Peak hours are considered to be the peak one-hour period between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m.

Table 2
Peak-Hour Project Trip Generation

Vehicle	A.M. Peak Hour		P.M. Peak Hour	
	Entering	Exiting	Entering	Exiting
Employee automobiles	30	0	0	30
Customer automobiles	1	1	0	0
Trucks (blood, offal, beef)	1	1	1	1
Miscellaneous deliveries	0	0	0	0
Inspectors, nutritionists, veterinarians	0	0	0	0
TOTAL:	**32**	**2**	**1**	**31**
Total automobiles:	**31**	**1**	**0**	**30**
Total 2-axle trucks:	**0**	**0**	**0**	**0**
Total 5-axle trucks:	**1**	**1**	**1**	**1**

Passenger car equivalents (PCE) represent the number of passenger cars displaced by a single heavy vehicle (typically considered to be vehicles with more than four wheels touching the pavement during normal operations) under certain roadway, traffic, and control conditions. The use of PCEs compensates for the operational characteristics of heavy vehicles (e.g., slower acceleration and deceleration than passenger vehicles) as well as the roadway space displaced. The Transportation Research Board *Highway Capacity Manual, 6th Edition,* identifies a PCE factor of 2.0 for a default mix of trucks in level terrain on highway segments. For purposes of this study, a PCE factor of 3.0 is applied to five-axle Project trucks.

Table 3 presents a summary of the peak-hour Project trips in terms of PCE.

Table 3
Current Project Peak-Hour Trip Generation (PCE)

Vehicle	A.M. Peak Hour		P.M. Peak Hour	
	Entering	Exiting	Entering	Exiting
Employee automobiles	30	0	0	30
Customer automobiles	1	1	0	0
Trucks (blood, offal, beef)	3	3	3	3
Miscellaneous deliveries	0	0	0	0
Inspectors, nutritionists, veterinarians	0	0	0	0
TOTAL (PCE):	**34**	**4**	**3**	**33**
Total automobiles:	**31**	**1**	**0**	**30**
Total 2-axle trucks:	**0**	**0**	**0**	**0**
Total 5-axle trucks (PCE):	**3**	**3**	**3**	**3**

Table 4 presents the peak-hour project trips in terms of PCE that were analyzed in the Traffic Study.

Table 4
Traffic Study Peak-Hour Project Trip Generation (PCE)

Vehicle	A.M. Peak Hour		P.M. Peak Hour	
	Entering	Exiting	Entering	Exiting
Beef Harvesting Plant				
Employee automobiles	30	0	0	30
Customer automobiles	1	1	0	0
Trucks (blood, offal, beef)	3	3	3	3
Miscellaneous deliveries	0	0	0	0
Inspectors, nutritionists, veterinarians	0	0	0	0
Feedlot				
Employee automobiles	1	0	0	5
Trucks (feed)	3	3	3	3
Trucks (cows)	3	3	3	3
TOTAL (PCE):	**41**	**10**	**9**	**44**
Total automobiles:	**32**	**1**	**0**	**35**
Total 2-axle trucks:	**0**	**0**	**0**	**0**
Total 5-axle trucks (PCE):	**9**	**9**	**9**	**9**

The total PCE analyzed in the Traffic Study (Table 4) exceeds that of the current Project (Table 3) in both the a.m. and p.m. peak hours. The Traffic Study concluded that the Project may be presumed to cause a less-than-significant transportation impact. The Traffic Study also concluded that Project will not cause a new traffic issue or exacerbate an existing traffic issue.

The Project trips have been decreased slightly from those analyzed in the Traffic Study; therefore, the results, conclusions, and recommendations of the Traffic Study remain applicable and a revised traffic study is not required.

Thank you for the opportunity to continue to work with you on this project. Please feel free to call our office if you have any questions.

PETERS ENGINEERING GROUP

John Rowland, PE, TE