Select Harvest USA Multi-Year Expansion Project

Initial Study – Mitigated Negative Declaration

prepared by

County of Merced
Merced County Community and Economic Development Department
2222 M Street, Second Floor
Merced, California 95340
Contact: Tiffany Ho, Planner III

prepared with the assistance of

Rincon Consultants, Inc.
7080 North Whitney Avenue, Suite 101
Fresno, California 93720

February 2023

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Select Harvest USA Multi-Year Expansion Project

Initial Study – Mitigated Negative Declaration

prepared by

County of Merced
Merced County Community and Economic Development Department
2222 M Street, Second Floor
Merced, California 95340
Contact: Tiffany Ho, Planner III
Email: Tiffany.Ho@countyofmerced.com

prepared with the assistance of

Rincon Consultants, Inc.
7080 North Whitney Avenue, Suite 101
Fresno, California 93720

February 2023

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

This report prepared on 50% recycled paper with 50% post-consumer content.

Table of Contents

Tables

Figures

Appendices

Initial Study

1. Project Title

Merced County Select Harvest USA Project, Expansion of Agricultural Processing and Storage Facility

2. Lead Agency Name and Address

County of Merced
Merced County Community and Economic Development Department
2222 M Street, Second Floor
Merced, CA 95340

3. Contact Person and Phone Number

Tiffany Ho, County Planner III
(209) 385-7654 ext. 4407
Tiffany.ho@countyofmerced.com

4. Project Location

The project site is a 52-acre parcel in an unincorporated area of Merced County at 14827 W. Harding Road, specifically the southeast corner of W. Harding Road and Sycamore Road, Assessor's Parcel Number (APN): 041-163-001. It is regionally accessible from State Route (SR) 99, which is approximately two miles south of the project site. The nearest community is Delhi, located within unincorporated County of Merced, approximately two miles to the southwest (Figure 1). Local access is available via W. Harding Road which directly abuts the project site to the north.

5. Existing Site Characteristics

General Plan Designation and Zoning

The land use designation for the site from the Merced County General Plan is Agricultural. The site is currently developed with warehouses, a nut orchard, and additional buildings to support the agricultural business operation. The parcel is zoned A-1, General Agricultural.

Surrounding Land Uses and Setting

The site is currently developed as an agricultural processing plant. It is adjacent to an almond orchard to the east and agricultural uses to the north, south, and west. Almond processing structures, storage warehouses, and accessory structures occupy the majority of the project site, and a portion is planted with almonds. The project site is surrounded exclusively by agricultural land and scattered single-family residences. The proposed site plan is shown on Figure 2 (Appendix C), and Figure 3 shows a photo of the project's proposed expansion area.

6. Project Characteristics

Background

The Select Harvest USA agricultural facility processes raw nuts delivered to the site from local nut haulers; these deliveries occur via approximately 10-15 trucks per day from September to January. Some nuts are then processed, cleaned, and boxed, and transported from the facility; there are approximately 5-10 outgoing trucks per day. This operation occurs throughout the year. Another area of the facility processes shelled almonds which are sized, cleaned, graded, and then stored in on-site facilities. The almonds are stored for processing, packing, and shipment to other locations for further processing.

Project Description

The project would involve a 214,791 square-foot expansion of an existing site agricultural processing facility. The expansion would provide more on-site storage and warehousing of product to make operations more efficient. This expansion would reduce the number of truck trips to and from the site, as increased storage capacity on site would reduce trips hauling nuts to off-site storage. The site's expansion would be comprised of storage and warehousing facilities, offices, a replacement parking lot, and other agricultural accessory structures. Some ornamental vegetation removal would be required for additional structures in the northern area of the project site. Based on the site plan, five warehouses would include roof top solar panels. The septic system would be expanded, per the Merced County Health Code to include septic system expansions for the additional facilities. In addition, a temporary staging area would be located within the existing facility's property boundary to store all construction equipment.

Operational hours vary; receiving season follows the local harvest from September to January. Product processing and packaging continue throughout the remainder of the year. This location employs approximately 90-110 personnel, depending on the time of year. The number of employees would not increase as the proposed expansion would utilize existing personnel. However, during construction, the applicant anticipates an additional two to three contractors per month in addition to the two to four visitors the project site typically has.

The construction of the project is anticipated to occur between April 2023 (quarter two) and September 2029 (quarter three). Project construction would be phased, and each phase would be completed within three months (a quarter). Each phase includes construction in a contained zone on the site, and each zone is completed within that quarter. There are a total of 17 zones to be completed per quarter, however, there are two quarters that will commence the construction of two zones instead of one zone.

Table 1 summarizes the proposed additions to the existing facility. Figure 3 is a photo of the proposed site plan expansion area.

Table 1 Project Summary

Existing Project Site Structure	Area (sq. ft)	Proposed Project Structure Expansion Area (sq. ft)	Structure Area Total (sq. ft)[1]
Warehouse Buildings	138,047	124,524	262,571
Accessory Structures	171,643	86,767	258,410
Offices	11,872	3,500	15,372
Portable RR Unit	288	--	288
Carport Cover	800	--	800
Fire Pump House	573	--	573
Total	**323,223 (14% site coverage)**	**214,791 (9% site coverage)**	**538,014 (24% site coverage)**
Parking Stalls	**Existing Parking Stalls**	**Parking Stalls Added by Proposed Project**	**Total New Parking Stalls[2]**
Standard (9'x19')	85 stalls	103 stalls	188 stalls
Handicap (9'x19')	6 stalls	4 stalls	10 stalls
Total	**91 stalls**	**107 stalls**	**198 stalls**
Landscaping			
Landscape area			22,6651 (2%)
Parking and Pavement area			283,140 (25%)
Total hardscape area (including buildings)			1,132,560 (48%)

[1]Totals may not add up exactly due to rounding

[2]New parking stalls would replace current parking lot areas to be used for new buildings and facilities

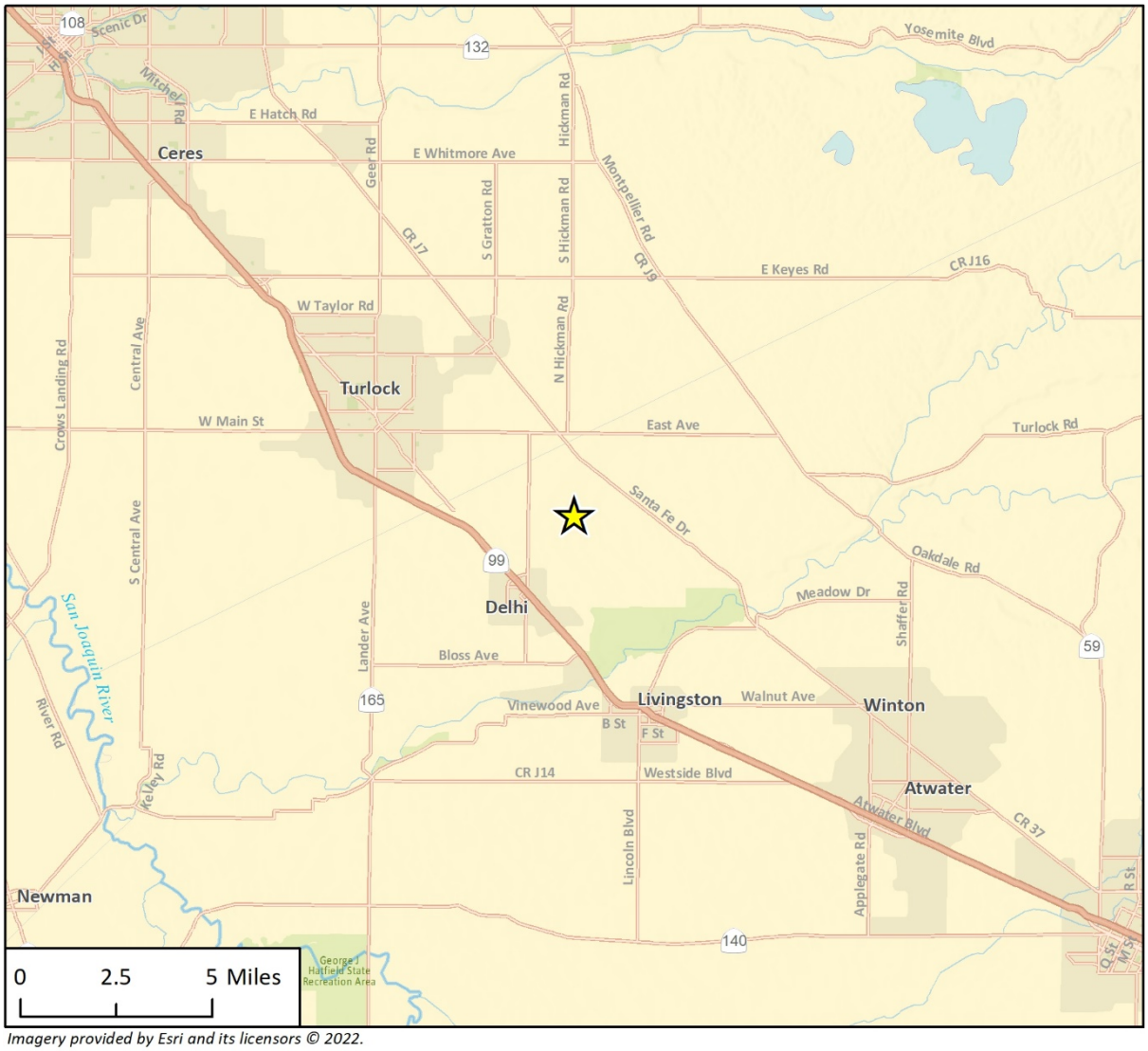
7. Other Public Agencies Whose Approval is Required

The proposed project is subject to approval by the County of Merced. Specifically, local approvals from the County would be required for any work on County property or within public rights-of-way, including utility work, sidewalk and hardscape modifications, trees or landscaping modification and temporary closures of street parking areas or read laneways. Additional permits may be required by SJVAPCD and the SWRCB.

8. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

As discussed below in Section 18, *Tribal Cultural Resources*, no Native American tribes, traditionally or culturally affiliated with Merced County, have requested project notifications per Assembly Bill (AB) 52.

Figure 1 Regional Location



Imagery provided by Esri and its licensors © 2022.

Project Location

N

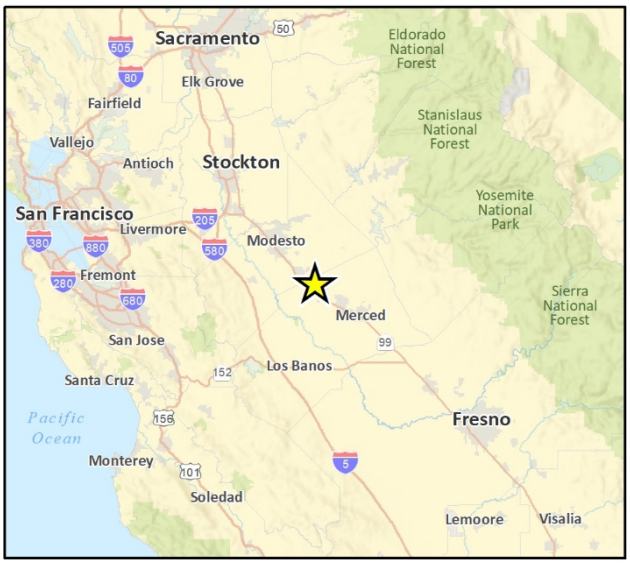


Figure 2 Site Plan

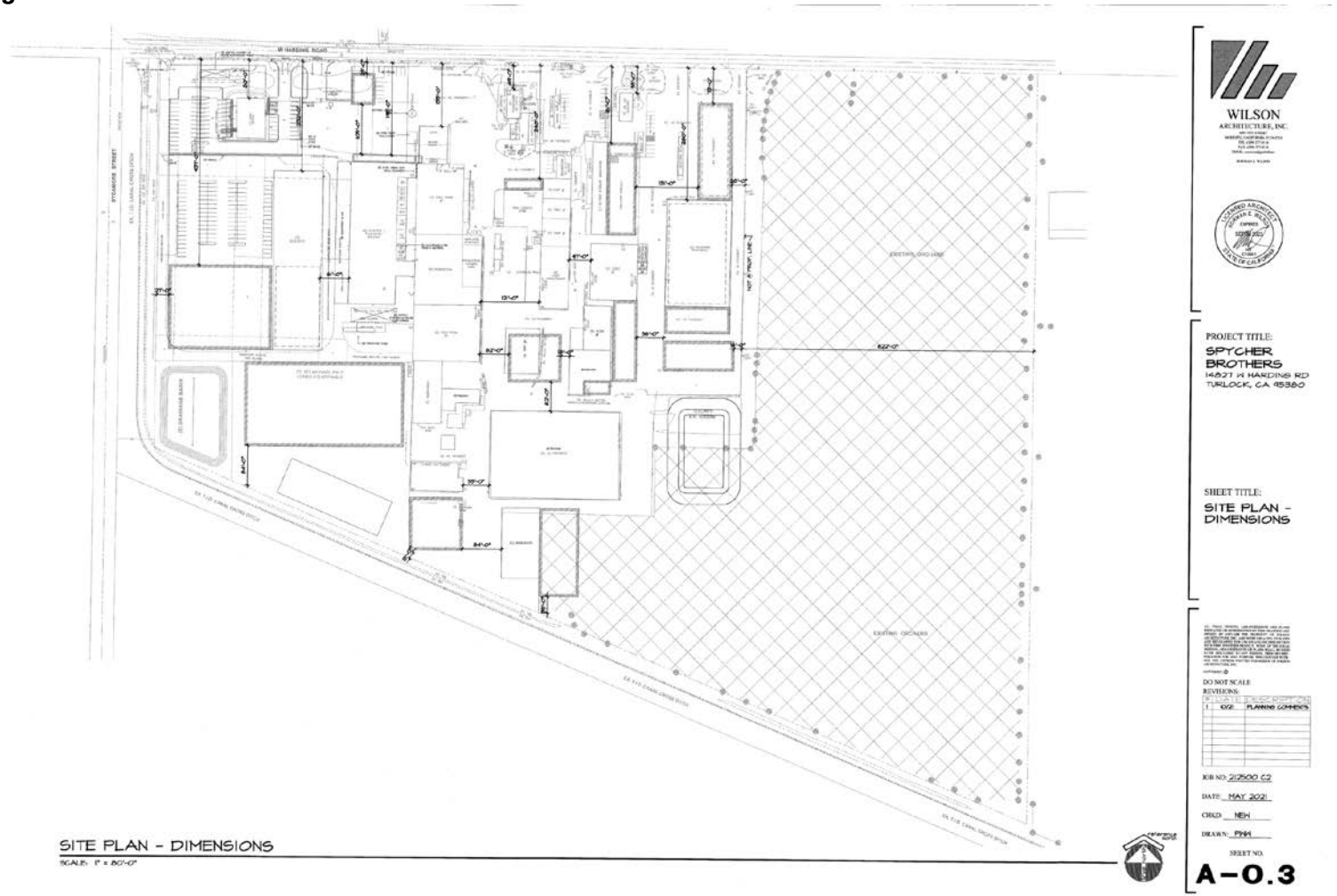


Figure 3 Photo of Proposed Project Area

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

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

Determination

Based on 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 to the project have been made by or 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 "less than significant with mitigation incorporated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

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

Signature — 2/14/2023 (Date)

Tiffany Ho — Planner III

Printed Name — Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	■
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	■
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a 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 that would adversely affect daytime or nighttime views in the area?	☐	☐	■	☐

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

Scenic vistas are places from which expansive views of a highly valued landscape can be observed by the public. They can be enjoyed from elevated places in the landscape or from roadways or other public places where the views stretch far into the distance. Scenic vistas may be informally recognized, or officially designated by a public agency. The project site and surrounding lands are not formally recognized as a scenic vista (County of Merced 2012). The facility's proposed expansion would not interfere with the view of any highly valued landscape, as it is surrounded in all directions by agricultural uses and would not obstruct views of scenic features. Therefore, there would be no impact.

NO IMPACT

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

The California Department of Transportation Scenic Highway program does not include a designated State Scenic Highway within Merced County near the project site. Therefore, as the project would not substantially damage scenic resources located near a designated or eligible state scenic highway, no impacts would occur.

NO IMPACT

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a 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?

The project is not located in an urbanized area and is mostly surrounded by agricultural land, with a few scattered single-family residences. The project site which is developed with an agricultural processing facility and the proposed expansion of additional warehouses and other accessory buildings would be compatible with surrounding agricultural uses and would not change the current setting. The project would not eliminate views of surrounding agricultural lands, as the project consists solely of the expansion of within the existing facility boundaries. Therefore, the project would have a less than significant impact on the existing visual character or quality of public views of the site and its surroundings.

LESS THAN SIGNIFICANT IMPACT

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Existing sources of light and glare on the project site include temporary lighting for agricultural uses and lighting on existing buildings and parking areas. The project would create a new source of light and glare during construction and operation. During the construction phase, temporary impacts to light and glare would occur from car windshields, and other highly reflective glass or metal surfaces of construction equipment and worker vehicles. After construction, daytime sources of glare from the project would be similar to the existing light or glare conditions and include reflection of the sun off buildings, car windshields, and other highly reflective glass or metal surfaces. Nighttime lighting directed downward may be installed on the exterior of structures within the project site, for parking lot safety, street lighting, in addition to vehicle headlights, and some lighting removed previously illuminating areas where new buildings are constructed. All new lighting sources would be required to comply with County regulations and be low-level illumination and shielded with hoods to reduce light spill or glare. These limited increases and decreases to existing sources of light and glare would be a less than significant impacts on the daytime and nighttime views in the area.

LESS THAN SIGNIFICANT IMPACT

2 Agriculture and Forestry Resources

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

Setting

The project site is located within an agricultural area in Merced County. The site is currently an agricultural use.

The California Department of Conservation (DOC) manages the Farmland Mapping and Monitoring Program to assess and record suitability of land for agricultural purposes. In each county, the land is analyzed for soil and irrigation quality and the highest quality land is designated as Prime Farmland. Most of the project site is designated as Urban and Built-Up Land, with Prime Farmland and Farmland of Statewide Importance on the western portion of the site (DOC 2018).

Impact Analysis

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

Most of the project site is designated as Urban and Built-Up Land, as it currently has existing structures on-site used for the nut processing facility (DOC 2018). A small portion of the site is designated as Prime Farmland and Farmland of Statewide Importance, where there are currently no existing structures, and the project would construct a parking lot, a drainage basin, and a building in this designation area. The addition of these agricultural support facilities are accessory to agricultural production, and are allowed by the County of Merced Municipal Code Chapter 18.10 in agricultural zones; therefore, no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would not be considered a conversion of agricultural land to a non-agricultural use.

LESS THAN SIGNIFICANT

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

The project is subject to the Williamson Act contract; however, the existing use and proposed expansion is within the Merced County Rules of Procedure to Implement the California Land Conservation Act of 1965 as a compatible use. As defined, compatible uses include but are not limited to Agricultural and Food Processing Plants, Truck parking (agricultural product hauling), and Agricultural Products Storage (COM, 2000). Therefore, the project would not have an impact on Williamson Act contracted land as it is a compatible use.

NO 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))?

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

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

The project site and surrounding areas are currently zoned for agriculture and would continue to be used for agriculture. Additionally, the project supports the adjacent agricultural uses as a nut processing facility. The project does not conflict with agricultural or forest land zoning. While some vegetation and mature trees are present on the project site, the site itself is not forest or timberland. The project site does not provide forest and timber resources. As such, the project would not convert agricultural, forest or timberland uses to other uses, and the impact would be considered less than significant.

LESS THAN SIGNIFICANT IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	■	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	■	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	■	☐	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	■

Overview

The federal and State Clean Air Acts (CAA) mandate the control and reduction of certain air pollutants. Under these laws, the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for "criteria pollutants" and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_X), particulate matter with diameters of ten microns or less (PM_{10}) and 2.5 microns or less ($PM_{2.5}$), sulfur dioxide, and lead. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between ROG and NO_X. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog).

Air pollutant emissions are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories:

1 Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat.

2 Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and can also be divided into two major subcategories:

3 On-road sources that may be legally operated on roadways and highways.

4 Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air Quality Standards and Attainment

The project site is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD) being it is within the San Joaquin Valley Air Basin (SJVAB). As the local air quality management agency, the SJVAPCD is required to monitor air pollutant levels to ensure that the NAAQS and CAAQS are met. Depending on whether the standards are met or exceeded, the SJVAB is classified as being in "attainment" or "nonattainment." In areas designated as non-attainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants, and the human health impacts associated with these criteria pollutants, presented in Table 2, are already occurring in that area as part of the environmental baseline condition.

Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. As the local air quality management agency, SJVAPCD, must monitor air pollutant levels to ensure that the NAAQS and CAAQS are met. If they are not met, the SJVAPCD must develop strategies for their region to meet the standards. The strategies to achieve attainment status are included as part of the 2016 Ozone Plan and 2018 PM2.5 Plan. The SJVAB is designated a nonattainment area for the state one-hour ozone standard as well as for the federal and state eight-hour ozone standards. The SJVAB is also designated as nonattainment for the state annual arithmetic mean and federal 24-hour PM2.5 standards as well as the state 24-hour and annual arithmetic mean PM10 standards. The nonattainment statuses of the SJVAB are the result of several factors, such as increased population and the unique topographical and meteorological conditions that exacerbate the formation and retention of high levels of air pollution in the SJVAB (SJVAPCD 2016). In addition, the SJVAB has significant naturally occurring biogenic emissions (SJVAPCD 2016). The attainment status for Merced County portion of SJVAB is included in Table 3. The SJVAB is unclassified or in attainment for all other ambient air quality standards (SJVAPCD 2018a).

Table 2 Health Effects Associated with Non-Attainment Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: (a) pulmonary function decrements and localized lung edema in humans and animals and (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Suspended particulate matter (PM_{10})	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma).
Suspended particulate matter ($PM_{2.5}$)	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma.

Source: USEPA 2021a.

Table 3 Attainment Status of Criteria Pollutants in Merced County of SCAB

Pollutant	State Designation	Federal Designation
O_3	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment

Sources: CARB 2020, USEPA 2022.

The SJVAPCD operates a network of air quality monitoring stations throughout the SJVAB. The monitoring stations aim to measure ambient concentrations of pollutants and determine whether ambient air quality meets California and federal standards. The closest monitoring station to the project site is the Turlock-S Minaret (located at 900 S Minaret Street, Turlock), approximately 4.6 miles northwest of the project site. The Turlock-S Minaret station collects 8-hour ozone, 1-hour ozone, NO_2, PM_{10}, and $PM_{2.5}$ measurements. The closest monitoring station with CO measurements is the Modesto-14th Street monitoring station (814 14th Street Modesto), approximately 18 miles northwest of the project site. Table 4 indicates the number of days each federal and state standard is exceeded at the Turlock or Modesto monitoring stations. As shown therein, ozone, PM_{10}, and $PM_{2.5}$ exceeded federal and state standards in 2018, 2019, and 2020. No other criteria pollutants exceeded the state or federal standards at these monitoring stations. SO_2 is not included in the table below since the region no longer monitors the pollutant.

Table 4 Ambient Air Quality at the Nearest Monitoring Stations

Pollutant	2018	2019	2020
8 Hour Ozone (ppm), 8-Hour Average[1]	0.095	0.082	0.086
Number of Days of state exceedances (>0.070 ppm)	26	13	13
Number of days of federal exceedances (>0.070 ppm)	26	13	13
Ozone (ppm), Worst Hour[1]	0.108	0.090	0.104
Number of days of state exceedances (>0.09 ppm)	7	0	2
Carbon Monoxide (ppm) – Worst Hour[2]	2.8	1.9	2.9
Number of days of state exceedances (>20.0 ppm)	0	0	0
Nitrogen Dioxide (ppm) - Worst Hour[1]	0.07	0.06	0.05
Number of days of state exceedances (>0.18 ppm)	0	0	0
Number of days of federal exceedances (>0.10 ppm)	0	0	0
Particulate Matter 10 microns or less, μg/m^3, Worst 24 Hours[1]	238.7	95.9	217.8
Number of days of state exceedances (>50 μg/m^3)	13	10	15
Number of days above federal standard (>150 μg/m^3)	1	0	1
Particulate Matter 2.5 microns or less, μg/m^3, Worst 24 Hours[1]	187.3	40.7	118.5
Number of days above federal standard (>35 μg/m^3)	25	8	31

[1]Measurements were taken from Turlock-S Minaret monitoring station

[2]Measurements were taken from Modesto-14th Street monitoring station

Source: CARB 2022a, CARB 2022b.

Air Quality Management

The SJVAB is currently designated nonattainment for the ozone and $PM_{2.5}$ NAAQS. The SJVAPCD is required to implement strategies to reduce pollutant levels to achieve attainment of the NAAQS. The SJVAPCD 2016 Ozone Plan and 2018 $PM_{2.5}$ Plan include emissions inventories that identify sources of air pollutants, evaluations for the feasibility of implementing potential opportunities to reduce emissions, and sophisticated computer modeling to estimate future pollution levels and a strategy for how air pollution will be further reduced. The plans also include innovative alternative strategies for accelerating attainment through non-regulatory measures. The 2016 Ozone Plan determines that, with the implementation of the proposed control strategy, the SJVAB can expect to reach attainment status of the 2008 eight-hour ozone NAAQS by December 31, 2031 (SJVAPCD 2016). The 2022 Ozone Plan (update to 2016 Ozone Plan) is under development and will address 8-hour ozone standards. The 2018 $PM_{2.5}$ Plan for the 1997, 2006, and 2012 $PM_{2.5}$ NAAQS includes a strategy for bringing SJVAB into attainment by the respective deadlines of 2023, 2024, and 2025 (SJVAPCD 2021).

Air Emission Thresholds

The SJVAPCD has adopted guidelines for quantifying and determining the significance of air quality emissions in its *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI; SJVAPCD 2015a). The SJVAPCD recommends the use of quantitative thresholds to determine the significance of construction-and operational related emissions of criteria air pollutants. SJVAPCD has two sets of significance thresholds for operational emissions depending on whether the activities are for

permitted equipment and activities or non-permitted equipment and activities. Project operation does not include permitted equipment or activities such as the use of back-up generators. Therefore, only the operational thresholds for non-permitted equipment and activities and construction activities are appropriate for evaluating project impacts. In addition, the project would have effects that are incremental in nature, and will be subject to state and local regulations, therefore compliance with project-level thresholds are treated as compliance to the cumulative threshold. These thresholds are shown in Table 5.

Table 5 SJVAPCD Air Quality Thresholds of Significance – Criteria Pollutants

Pollutant	Construction (tons per year)	Operation (tons per year)
Nitrogen Oxides (NO_x)	10	10
Reactive Organic Gases (ROG)	10	10
Particulate Matter with diameter < 10µm (PM_{10})	15	15
Particulate Matter with diameter < 2.5 µm ($PM_{2.5}$)	15	15
Sulfur Oxide (SO_x)	27	27
Carbon Monoxide (CO)	100	100

Source: SJVAPCD 2015b.

In addition to the annual SJVAPCD thresholds presented above, SJVAPCD has published the *Ambient Air Quality Analysis Project Daily Emissions Assessment* guidance, which is summarized in Section 8.4.2, *Ambient Air Quality Screening Tools*, of the SJVAPCD's GAMAQI (SJVAPCD 2018b). The Ambient Air Quality Screening Tools guidance provides a screening threshold of 100 pounds per day to evaluate construction and operational activities the following pollutants: NO_X, ROG, PM_{10}, $PM_{2.5}$, SO_X, and CO. An ambient air quality assessment, which includes refined dispersion modeling, could be necessary if an exceedance occurs.

The SJVAPCD also recommends quantitative thresholds for evaluating a project's air quality impacts related to toxic air contaminants (TACs). Health effects from carcinogenic air toxins are usually described in terms of cancer risk. The SJVAPCD recommends a carcinogenic (cancer) risk threshold of 20 in a million. The Chronic Hazard Index is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. The SJVAPCD recommends a Chronic Hazard Index significance threshold of 1.0 and an Acute Hazard Index of 1.0.

Methodology

Air pollutant emissions generated by project construction and operation were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod uses project-specific information, including the project's land uses, square footages for different uses (e.g., manufacturing and parking), and location to model a project's construction and operational emissions. The analysis reflects the construction and operation of the project as described under Section 6, *Energy.*

Construction Emissions

Modeled construction emissions include those generated by construction equipment and vehicle trips, such as worker and vendor trips. Construction of the proposed project was analyzed based on the applicant-provided land use type and square footage. In addition, the applicant provided a

construction timeline between April 2023 and September 2029. Project construction would be phased, and each phase would be completed within three months (a quarter). It is assumed the soil would be balanced and all construction equipment used would be diesel-powered. In addition, this analysis assumes that the project would comply with all applicable regulatory standards. In particular, the project would comply with SJVAPCD Rule 8021 Construction, Demolition, Excavation, Extraction, And Other Earthmoving Activities, to limit fugitive dust emissions from these activities. Control measures include pre-activity, during active operations, and temporary stabilization during periods of inactivity, and require administrative requirements such as a Dust Control Plan and recordkeeping of activities and control measures. The project would also comply with Rule 4601 Architectural Coatings, to limit VOC emissions from architectural coatings storage, cleanup, and labeling requirements. The rule provides VOC limits on coating categories and requires administrative requirements such as labeling requirements and reporting requirements, and test methods used to demonstrate compliance with Rule 4601. The architectural coating area was adjusted in CalEEMod for to reflect the area of coating required for each phase of development. See Appendix A for the project's construction-related air pollutant emissions modeling and calculations.

Operational Emissions

Operational emissions modeled include energy emissions and area source emissions. Since the project would not change its operational activity or add additional employees, mobile activity would not increase; therefore, mobile emissions were excluded from this analysis. Emissions attributed to energy use include natural gas consumption by processes/equipment as well as for space and water heating. Area source emissions are generated by landscape maintenance equipment and periodic architectural coating associated with upkeep of the new buildings.

Health Risk Assessment

The SJVAPCD identifies construction activities as a common source of TAC and $PM_{2.5}$ emissions due to the operation of diesel-powered equipment and heavy-duty trucks that emit diesel particulate matter (DPM). Although construction activity is short-lived, it may increase TAC concentrations in the short term at nearby sensitive receptors. DPM is the primary contaminant of concern for construction of the project and would be the TAC emitted in the largest quantity, thus health risks from construction activity were assessed as they relate to DPM exposure. This health risk assessment (HRA) was conducted to evaluate DPM construction emissions, and their potential impacts on the sensitive receptors located 1,000 feet from the project site.

A construction HRA was prepared following SJVAPCD guidance to comply with the Office of Environmental Health Hazard Assessment's (OEHHA's) Air Toxics Hot Spots Programs' *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*. Potential cancer and non-cancer health impacts were estimated using exposure periods appropriate to evaluate short term emission increases. DPM dispersion was modeled using Lakes Environmental American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) View model (version 10.2.1). Specific meteorology and terrain for the site were input to the model using the nearest available meteorological data set, Modesto Airport (approximately 14.9 miles northwest of the project site), and 30-meter Digital Elevation Model (DEM) data for the Turlock and Cressey Quadrangle. On-site exhaust emissions from construction equipment were used in this HRA to determine TAC exposure result. The average annual and maximum daily on-site PM_{10} emissions estimated by CalEEMod were used to approximate DPM emissions. These emissions were input into the CARB Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to determine cancer and non-cancer health impacts. Risk was assessed by including all mandatory minimum pathways in the

risk analysis and was calculated using the OEHHA Derived Method. The cancer and non-cancer risk were compared to SJVAPCD thresholds to assess potential impacts. For more details on the HRA methodology, see Appendix A.

CO Hotspots

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. The entire Basin is in conformance with state and federal CO standards, and most air quality monitoring stations no longer report CO levels. One station within the SJVAB reports CO emissions data, and only report maximum 1-hour and average daily concentrations of CO. For 2020, the Modesto-14th Street monitoring station in Merced County reported maximum 1-hour and average daily concentrations of 2.9 ppm and 1.4 ppm respectively (CARB 2022b). These are well below the respective 1-hour and 8-hour standards of 20 ppm and 9 ppm. Given the ambient concentrations, which includes mobile as well as stationary sources, a project in the SJVAB would need to emit concentrations seven times the hourly maximum ambient emissions for all sources near the Modesto-14th Street station before project emissions would exceed the 1-hour standard. Additionally, the project would need to emit six times the daily average for ambient concentrations near the monitoring station within eight hours to exceed the 8-hour standards. Typical development projects would not emit the levels of CO necessary to result in a localized hot spot. Therefore, CO hotspots are not discussed further in this document.

Impact Analysis

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

Construction and operation of the project would result in emissions of criteria pollutants including ozone precursors, such as ROG and NO_X, as well as particulate matter. The SJVAPCD has prepared several air quality attainments plans to achieve ozone and particulate matter standards, the most recent of which include the 2016 Plan for the 2008 8-Hour Ozone Standard and the 2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards. The SJVAB is in attainment for CO, nitrogen dioxide, sulfur dioxide, and lead; therefore, the SJVAPCD has not developed attainment plans for these pollutants. The SJVAPCD has determined that projects with emissions above the thresholds of significance for criteria pollutants would conflict with and obstruct implementation of the SJVAPCD's air quality plans (SJVAPCD 2015a). As discussed under item (b), the project would not exceed the SJVAPCD's significance thresholds for criteria air pollutant emissions. Therefore, the project would not conflict with applicable air plans, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Construction Emissions

Project construction would generate temporary air pollutant emissions associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction equipment and construction vehicles in addition to ROG emissions that would be released during the paving and drying phase of architectural coating. Table 6 summarizes the estimated annual emissions of criteria air pollutants

during project construction. As shown therein, construction-related emissions would not exceed SJVAPCD regional thresholds.

Table 6 Project Construction Emissions

	Annual Construction Emissions (tons/year)					
Construction Year	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
2023	<1	2	2	<1	<1	<1
2024	<1	3	3	<1	<1	<1
2025	<1	2	2	<1	<1	<1
2026	<1	<1	<1	<1	<1	<1
2027	<1	1	1	<1	<1	<1
2028	<1	1	1	<1	<1	<1
2029	<1	<1	<1	<1	<1	<1
Maximum Annual Emissions	<1	3	3	<1	<1	<1
SJVAPCD Thresholds of Significance	10	10	100	27	15	15
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

ROG = reactive organic gas, NO_x = nitrogen oxides, CO = carbon monoxide, SO_x = sulfur oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Notes: All calculations were made using CalEEMod v.2020.4.0. See Appendix A for calculations. Some numbers may not add up due to rounding. Emission data is pulled from CalEEMod's "mitigated" results, which account for project design features. Emissions presented are the highest of the winter and summer modeled emissions.

In addition, as shown in Table 7, maximum daily emissions associated with the project would not exceed the SJVAPCD's 100-pounds-per-day screening threshold during construction, under *8.4.2 Ambient Air Quality Screening Tools* in SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts. Therefore, an ambient air quality assessment is not required for construction activities.

Table 7 Maximum Daily Project Construction Emissions

Year	Emissions (lbs/day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2023	10	70	67	<1	10	6
2024	20	58	64	<1	15	8
2025	21	84	78	<1	10	6
2026	4	34	44	<1	10	6
2027	23	97	78	<1	11	6
2028	97	32	43	<1	10	6
2029	9	25	20	<1	10	6
Maximum Daily Emissions	97	97	78	<1	15	8
SJVAPCD Screening Threshold	100	100	100	100	100	100
Screening Threshold Exceeded?	No	No	No	No	No	No

lbs/day = pounds per day, ROG = reactive organic gas, NO_X = nitrogen oxides, CO = carbon monoxide, SO_X = sulfur oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Notes: All calculations were made using CalEEMod v.2020.4.0. See Appendix A for calculations. Some numbers may not add up due to rounding. Emission data is pulled from CalEEMod's "mitigated" results, which account for project design features. Emissions presented are the highest of the winter and summer modeled emissions.

Pursuant to the SJVAPCD's Rule 9510, *Indirect Source Review*, the project would be subject to reduce additional construction NOx and PM_{10} emissions by 20 percent and 45 percent, respectively, beyond what is reported in the analysis since it would develop more than 100,000 square feet of heavy industrial space, which is the ambient air quality analysis screening level threshold for heavy industrial developments. Therefore, project construction would not exceed SJVAPCD annual and daily thresholds, which would not 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. Impacts would be less than significant.

Operational Emissions

Operation of the project would generate criteria air pollutant emissions associated with area sources (e.g., architectural coatings, consumer products, and landscaping equipment) and energy sources (i.e., use of natural gas for space and water heating). Mobile sources were excluded from the analysis since the project would not add new employees to increase/change operational mobile activity. Table 8 summarizes the project's annual operational emissions by emission source. As shown therein, operational emissions would not exceed SJVAPCD regional thresholds for criteria pollutants.

Table 8 Project Operational Emissions

Emissions Source	Emissions (tons/year)					
	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	1	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Total	1	<1	<1	<1	<1	<1
SJVAPCD Thresholds	10	10	100	27	15	15
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day = pounds per day; VOC = Volatile organic compounds, NOX = nitrogen oxides, CO = carbon monoxide, SO2 = sulfur dioxide, PM10 = particulate matter 10 microns in diameter or less, PM2.5 = particulate matter 2.5 microns or less in diameter

Source: All emissions modeling was completed made using CalEEMod. See Appendix A for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from CalEEMod's "mitigated" results, which account for project design features. Emissions presented are the highest of the winter and summer modeled emissions.

Project-related operational emissions were also compared to the SJVAPCD's 100-pounds-per-day ambient air quality screening threshold for ROG, NO_x, sulfur dioxide, CO, PM_{10}, and $PM_{2.5}$. As shown in Table 9, maximum daily emissions associated with project operation would not exceed the SJVAPCD's 100-pounds-per-day screening threshold during construction. Therefore, an ambient air quality assessment is not required for operational activities.

Table 9 Maximum Daily Project Operational Emissions

	Emissions (lbs/day)					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Maximum Daily Emissions	3	1	1	<1	<1	<1
SJVAPCD Screening Threshold	100	100	100	100	100	100
Screening Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day = pounds per day, ROG = reactive organic gas, NO_X = nitrogen oxides, CO = carbon monoxide, SO_X = sulfur oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Notes: All calculations were made using CalEEMod v.2020.4.0. See Appendix A for calculations. Some numbers may not add up due to rounding. Emission data is pulled from CalEEMod's "mitigated" results, which account for project design features. Emissions presented are the highest of the winter and summer modeled emissions.

Pursuant to the SJVAPCD's Rule 9510, *Indirect Source Review*, the project would be subject to reduce additional operational NOx and PM_{10} emissions by 33.3 percent and 50 percent, respectively, beyond what is reported in the analysis since it would develop more than 100,000 square feet of heavy industrial space, which is the ambient air quality analysis screening level threshold for heavy industrial developments. Therefore, project operation would not exceed SJVAPCD annual and daily thresholds, which would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Therefore, the majority of sensitive receptor locations are schools, hospitals, and residences. Sensitive receptors in the project vicinity include single-family residences located immediately southeast of the project site as well as other residences within approximately 1,000 feet of the project site. The project does not include the siting of new sensitive receptors. TAC exposure to sensitive receptors is discussed below.

Toxic Air Contaminants

TACs are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The following construction HRA evaluates the potential health risk to off-site receptors due to construction of the proposed project. Results of the analysis were compared to SJVACPD thresholds for a cancer risk threshold of 20 per one million, and a chronic Hazard Index significance threshold of 1.0. Since DPM is not associated with acute health risks (OEHHA 2019), acute risk was not evaluated in this HRA.

Based on the applicant provided construction schedule, project construction is anticipated to begin in April 2023 and be completed by September 2029. Project construction would be phased, and each phase would be completed within three months (a quarter). Activities for each construction phase would be periodic and short-term and project-related TAC emissions would cease with the completion of construction activities. The results of the construction HRA are provided in Appendix A.

The maximally exposed individual receptor (MEIR) is the modeled receptor experiencing the highest incremental excess cancer risk under the total exposure duration. The air dispersion and risk analysis identified a residence to be the MEIR, located approximately 440 feet southeast of the project site. As shown in Table 10, at the MEI, the chronic hazard index is less than 1.0; however, cancer risk per one million would exceed SJVAPCD's 20-in-one-million cancer risk threshold during the seven years of project construction. Therefore, health risk to nearby residents due to project construction would be potentially significant without mitigation. As identified in Table 11, with incorporation of Mitigation Measure AQ-1, health risks associated with construction impacts can be reduced to a less than significant level, reducing the cancer risk from 30.6 per million to 5.8 per million. The threshold is less than 20 per million.

Table 10 Health Risks Associated with Unmitigated Construction Activity

Scenario	Excess Cancer Risk (per million)	Chronic Health Risk[1]
Maximally Exposed Individual Receptor (MEIR)	30.6	0.053
SJVAPCD Significance Threshold	>20	>1
Threshold Exceeded?	Yes	No

µg/m^3 = micrograms per cubic meter; SJVAPCD = San Joaquin Valley Air Pollution Control District.

[1]Noncancer health impacts are determined by dividing the airborne concentration at the receptor by the appropriate Reference Exposure Level (REL) for that substance. A REL is defined as the concentration at which no adverse noncancer health effects are anticipated. Because noncancer health impacts are assessed as the ratio of airborne concentration versus the REL, the resulting hazard index is unitless.

For HARP model outputs, see Appendix A.

Table 11 Health Risks Associated with Mitigated Construction Activity

Scenario	Excess Cancer Risk (per million)	Chronic Health Risk[1]
Maximally Exposed Individual Receptor (MEIR)	5.8	0.024
SJVAPCD Significance Threshold	>20	>1
Threshold Exceeded?	No	No

µg/m^3 = micrograms per cubic meter; SJVAPCD = San Joaquin Valley Air Pollution Control District.

[1]Noncancer health impacts are determined by dividing the airborne concentration at the receptor by the appropriate Reference Exposure Level (REL) for that substance. A REL is defined as the concentration at which no adverse noncancer health effects are anticipated. Because noncancer health impacts are assessed as the ratio of airborne concentration versus the REL, the resulting hazard index is unitless.

For HARP model outputs, see Appendix A

Mitigation Measure

AQ-1 Construction Emissions Reduction

Prior to issuance of first construction permits, the following measures shall be implemented:

- All mobile off-road equipment (wheeled or tracked) greater than 50 horsepower used during the construction of Zone 16, Zone 2 & 15, Zone 5, Zone 9, and Zone 8 shall meet the USEPA Tier 4 final standards and/or alternative fuel (natural gas, propane, electric, etc.) construction equipment shall be incorporated. Tier 4 certification can be for the original equipment or equipment that is retrofitted to meet the Tier 4 final standards. Certification of Tier 4 equipment shall be maintained onsite during the equipment's use. Electricity shall be supplied to the site from the existing power grid to support the electric construction equipment. If connection to the grid is determined to be infeasible for portions of the project, a non-diesel fueled generator shall be used.
- The project would comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than five minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

During construction activities, heavy equipment and vehicles would emit unpleasant odors associated with vehicle and equipment exhaust. However, these odors would be intermittent and temporary, and would cease upon completion of the proposed project. In addition, odors disperse with distance and the current land use is sparse development and does not contain a substantial number of people or sensitive receptor sites. Overall, project construction would not generate other emissions, such as those leading to odors, affecting a substantial number of people. Construction-related impacts would have no impact.

SJVACPD has identified some common types of facilities that have been known to produce odors in the SJVAB during operation. Table 6 of the SJVAPCD's GAMAQI include wastewater treatment plants, landfills or transfer stations, refineries, composting facilities, asphalt batch plant, chemical manufacturing, fiberglass manufacturing, painting/coating operations, food processing facility, feed lot/dairy, and rendering plant to have the potential to generate substantial odor complaints. Based on the screening levels for potential odor sources, wastewater treatment facilities and petroleum refineries within two miles may adversely affect area receptors, and all other generators under one mile may adversely affect area receptors (SJVAPCD 2015a). The proposed project is identified as a common odor source since it is a food processing facility and is immediately adjacent to a residential property. However, because the proposed project would not increase its operational activity, there would not be a new source of odor compared to baseline conditions. Odors are subject to SJVAPCD's *Rule 4102, Nuisance,* to protect the health and safety of the public. On-site odors would continue to be subject to this rule, following project construction. In addition, solid waste generated by the proposed on-site uses would be properly stored in lidded dumpsters and/or trash cans and collected by a contracted waste hauler, ensuring that on-site waste would be managed and collected in a manner to prevent the proliferation of odors. Therefore, the proposed project would not generate other emissions such as those leading to new odors affecting a substantial number of people, and no operational impact would occur.

NO IMPACT

This page intentionally left blank.

4 Biological Resources

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

Regulatory Setting

Federal and State

Regulatory authority over biological resources is shared by federal, State, and local agencies under a variety of laws, ordinances, regulations, and statutes. Primary authority for biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the County of Merced).

The California Department of Fish and Wildlife (CDFW) is a trustee agency for biological resources throughout the State under CEQA and has direct jurisdiction under the California Fish and Game Code (CFGC). Under the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA), the CDFW and the U.S. Fish and Wildlife Service (USFWS), respectively, have direct regulatory authority over species formally listed as threatened or endangered (and listed as rare for CDFW). Native and/or migratory bird species are protected under the Migratory Bird Treaty Act (MBTA) and CFGC Sections 3503, 3503.5, and 3511.

Laws and regulations found within the Clean Water Act (CWA), CFGC, California Water Code, and California Code of Regulations (CCR) protect wetlands and riparian habitat. The U.S. Army Corps of Engineers (USACE) has regulatory authority over wetlands and other waters of the United States under Section 404 of the CWA. The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs) ensure water quality protection in California pursuant to Section 401 of the CWA and Section 13263 of the Porter-Cologne Water Quality Control Act. The CDFW regulates certain waters features, such as streams and lakes, under the CFGC Section 1600 et seq.

Special status species are those plants and animals: 1) listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS and the National Marine Fisheries Service (NMFS) under the FESA; 2) listed or proposed for listing as Candidates, Rare, Threatened, or Endangered by the CDFW under the CESA or Native Plant Protection Act; 3) recognized as California Species of Special Concern (CSSC) by the CDFW; 4) afforded protection under the MBTA and/or CFGC; and 5) occurring on Lists 1 and 2 of the California Native Plant Society's California Rare Plant Rank (CRPR) system.

Methods

Literature Review and Reconnaissance Survey

Agency databases, relevant literature, aerial photos, and site photos were reviewed for baseline information on special status species and other sensitive biological resources occurring or potentially occurring at the project site and in the immediate surrounding area. The following sources were reviewed for background information:

- CDFW California Natural Diversity Data Base (CNDDB) (CDFW 2022a) and Biogeographic Information and Observation System (BIOS) (CDFW 2022b)
- CDFW Special Animals List (CDFW 2022c) and Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2022d)
- CNPS Online Inventory of Rare and Endangered Plants of California (CNPS 2022)
- USFWS Information for Planning and Consultation (IPaC; USFWS 2022a)
- USFWS Critical Habitat Portal (USFWS 2022b)

- USFWS National Wetlands Inventory (NWI; USFWS 2022c)
- U.S. Geological Survey (USGS) National Hydrography Dataset (NHD; USGS 2022)
- U.S. Department of Agriculture, Natural Resources Conservation Services (USDA, NRCS) Web Soil Survey (USDA, NRCS 2022)

A review of the CNDDB (CDFW 2022a) for recorded occurrences of special status plant and wildlife taxa in the region were reviewed prior to conducting a field survey of the project site. For this review, the search included all occurrences within the USGS 7.5-minute topographic quadrangle encompassing the project site (Turlock) and the eight surrounding quadrangles (Arena, Cressey, Montpelier, Gustine, Stevinson, Hatch, Ceres, and Denair). Strictly marine, estuarine, and aquatic species were excluded from further analysis given the upland terrestrial nature of the project site. Plant species with specific habitat requirements are not present at the site, such as vernal pools, alkali or serpentine soils, or higher elevation ranges, were also excluded from this analysis. Rincon Biologists Morgan Craig and Caleb Yakel conducted a reconnaissance survey of the project site on June 16, 2022, to assess the habitat suitability for special status species, and document sensitive biological resources, if present.

The results of the background literature review and site survey were compiled into a list of regionally occurring special status plants and animals and evaluated each species for potential to occur based on habitat conditions and proximity to known occurrences (Appendix B). Rincon also reviewed the NWI (USFWS 2022c) and NHD (USGS 2022) for potential aquatic resources, including potentially jurisdictional waters of the U.S. or waters of the State.

Impact Analysis

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

Special-Status Plants

Twenty-five (25) special status plant species were identified to have occurrence records within the nine USGS quadrangles containing and surrounding the project site (CDFW 2022a; CNPS 2022; USFWS 2022a). All the reported species have specific habitat requirements (e.g., soil type, elevation, aspect, etc.). Existing conditions (developed and disturbed by agricultural use) and the lack of native vegetation communities or suitable ecological conditions on the site preclude the potential for special status plants to occur within the site and therefore, no special status plant species are expected. Given that construction activities are limited to previously disturbed, developed, and landscaped areas with ruderal and ornamental vegetation, impacts to special status plant species would not occur.

Special-Status Wildlife

Twenty-five (25) special status animal species were identified with known occurrence records within the nine USGS quadrangles containing and surrounding the project site (CDFW 2022a; USFWS 2022a). The site is highly disturbed and surrounded by agriculture. The site is primarily paved or actively managed for industrial use, with ornamental plantings, and an orchard on the east side. Two stormwater basins located adjacent to the developed area are man-made and regularly

maintained. The site does not comprise suitable habitat for federally or State listed species. The orchard on the east side of the site may provide habitat for one special status species, western red bat (*Lasiurus blossevillii*), a California species of special concern (SSC). However, the project would be limited to the developed area, and no impacts would occur in the orchard. Additionally, the hours of operation will remain the same and be restricted to daylight hours. Therefore, impacts to western red bat would be less than significant.

The site could be used by migratory birds as nesting habitat, including ornamental trees, buildings, and bare ground. Migratory birds are protected under CFGC Section 3503 and the MBTA. The nesting season generally extends from February 1 through August 31 in California but can vary based upon annual climatic conditions. Thus, construction activities could result in direct impacts to active nests during vegetation removal or disturbance-related nest abandonment. Impacts to most non-listed bird species through nest destruction or abandonment would not be considered significant under CEQA; however, this would be a violation of CFGC code and the MBTA. Impacts to non-listed special status birds would be potentially significant if those impacts would jeopardize the viability of a local or regional population. Therefore, Mitigation Measure BIO-1 would be required to avoid or reduce the project's potentially significant impacts to special status avian wildlife and avoid violation of the CFGC and MBTA.

Mitigation Measure

BIO-1 Nesting Bird Avoidance and Minimization Efforts

Project construction shall be conducted outside of the nesting season to the extent feasible (September 1 to January 31). If vegetation removal or initial ground-disturbing activities are conducted during the nesting season, a qualified biologist shall conduct a pre-construction nesting bird survey no more than 14 days prior to vegetation removal or initial ground disturbance. Nesting habitat may include buildings, shrubs, trees, and open ground. The survey shall include all potential nesting habitat in the project site and within 300 feet of the proposed project grading boundaries to identify the location and status of any nests that could potentially be affected by project activities.

If active nests are found within project impact areas or close enough to these areas to affect breeding success, the biologist shall establish a work exclusion zone around each nest that shall be followed by the contractor. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes vary dependent upon bird species, nest location, existing visual buffers, ambient sound levels, and other factors; an exclusion zone radius may be as small as 25 feet (for common, disturbance-adapted species) or as large as 300 feet or more for raptors. Exclusion zone size may also be reduced from established levels if supported with nest monitoring by a qualified biologist indicating that work activities outside the reduced radius would not adversely impact the nest.

Implementation of Mitigation Measure BIO-1 would ensure protection of nesting birds that may be on-site during construction activities. This measure would reduce the impact to special status species to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The review of the resource agency databases for sensitive natural communities within the nine USGS quadrangles containing and surrounding the project site identified six sensitive natural communities: Cismontane Alkali Marsh, Coastal and Valley Freshwater Marsh, Northern Claypan Vernal Pool, Northern Hardpan Vernal Pool, Valley Sacaton Grassland, and Valley Sink Scrub. None of these sensitive natural communities are present within or adjacent to the project site, nor are any other sensitive natural communities or riparian habitats. Therefore, the project would have no impact on riparian habitat or other sensitive natural communities.

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?

There are two stormwater basins located on the southwestern and southeastern corners of the project site. The eastern stormwater basin was constructed between late 2011 and early 2013 and is mapped as a reservoir in the NHD (USGS 2021). The western stormwater basin was constructed after early 2013, and prior to early 2014, according to arial imagery (Google Earth 2022). No other potentially jurisdictional areas are mapped within the project site. Although the basins are artificially created features, the RWQCB may assert jurisdiction over them under the Porter-Cologne Water Quality Control Act. During the field survey positive indicators for wetland hydrology were observed, including wetland vegetation (cattails) and saturated soil, suggesting surface water is present seasonally and therefore, these features are typically regulated by RWQCB.

It is not anticipated that CDFW will assert jurisdiction over the stormwater basins since they are unlikely to support wildlife due to their small size and height of vegetation and therefore, would not be subject to CDFW jurisdiction pursuant to CFGC Section 1600 et seq.

Neither of these features are considered navigable waters, nor are they connected to any navigable waters, and they are therefore not expected to be subject to USACE jurisdiction.

The project does not propose any alteration to these features and therefore, no impacts to potential State or federally protected wetlands would occur.

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?

The project site consists of developed and disturbed areas with primarily ornamental and agricultural vegetation. Land use in the vicinity is primarily agricultural and rural residential on all sides with no connectivity to natural habitats and is therefore not expected to support wildlife movement. Although a canal occurs to the southwest of the site, the site itself does not contain suitable natural areas that would contribute to a migratory corridor for wildlife. Any function that the drainage channel could serve as a wildlife corridor would not be affected by the project. Therefore, no impacts to wildlife movement corridors would occur as a result of project activities.

NO IMPACT

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

Some ornamental vegetation removal would be required for the proposed project. In accordance with the Merced County Ordinance, replacement of street trees is required to improve aesthetics of new development, provide drought-tolerant landscaping, and shading (18.36.050 – General Landscape Standards). With County approval of the Conditional Use Permit application and any applicable landscape plans, there would be no conflicts with local ordinances. Therefore, no impacts would occur.

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?

There are no Habitat Conservation Plans, Natural Community Conservation Plans, or other similar plans that govern activities on the project site. Therefore, the proposed project would not conflict with a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved plan. Therefore, no impacts would occur.

NO IMPACT

5 Cultural Resources

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

This section provides an analysis of the project's impacts on cultural resources, including historical and archaeological resources, as well as human remains. CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR); a resource included in a local register of historical resources; or any object, building, structure, site, area, place, record, or manuscript a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b]).

PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

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

In May 2022, Rincon conducted a cultural resources records search review in support of the project, which included: a cultural resources records search of the California Historical Resources Information System (CHRIS) through the Central California Information Center (CCaIC) located at California State University, Stanislaus; a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search; and historical map and aerial imagery review. Merced County directed that a Phase

I cultural resources survey was not required for the project and a standard records search review would be sufficient (Merced County, personal communication 2022).

The CCaIC records search was performed to identify previously conducted cultural resources studies, as well as previously recorded cultural resources within the project site and a 0.8-kilometer (0.5-mile) radius surrounding it. The records search included a review of available records at the CCaIC, as well as the National Register of Historic Places, CRHR, the Office of Historic Preservation Historic Properties Directory, the California Inventory of Historic Resources, the Archaeological Determinations of Eligibility list, and historical maps.

The CCaIC records search identified no cultural resources studies conducted within a 0.5-mile radius of or within the project site. The CCaIC search identified no previously recorded cultural resources within a 0.5-mile radius or within the project site. Rincon contacted the NAHC on May 13, 2022, to request a SLF search of the project site. A response from the NAHC dated July 11, 2022 stated the results were negative.

Rincon completed a review of historical topographic maps and aerial imagery to ascertain the development history of the project site. Historical topographic maps from 1917 to 1948 depict the project site as undeveloped vacant land bound by present day Harding Road to the north, Sycamore Street to the west, vacant land to the east, and Cross Ditch Number Two to the south. Topographic maps from 1962 to 1978 depict the project site as agricultural fields with a solitary building along the northeast portion of the current project site. Aerial imagery from 1946 to 1967 depict the project site as an orchard with grading limited to the southeast portion of the project site, as well as structures likely associated with the agricultural activities. Imagery from 1984 depicts the northwestern portion of the project site as graded, with further building expansion and the reintroduction of the orchard through 1998. Additional aerial imagery from 2005 to 2010 depicts the project site as graded with seven structures within the central and northern areas of the project site (NETR Online 2022). Imagery from 2011 to 2018 shows further site expansion and development to the west, with the project site identified in its current condition by 2018 (NETR Online 2022, USGS 2022).

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

The background research identified two structures within the project site dating to at least 1946, and four additional structures dating between 1946 and 1957. Between 1967 and 1998, these structures were demolished and replaced with six new structures. The structures were demolished and the existing structures date to between 1984 and 1998. The structures do not meet the age threshold triggering the need for historical resources evaluation and it would not be directly affected as part of the proposed project. Therefore, there are no historical resources on the project site and no impact to historical resources would occur.

NO IMPACT

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

No archaeological resources were identified within the project site during the CHRIS records search and the SLF search. Given the negative results of this review, the project site is considered to have low archaeological sensitivity and a low potential for encountering subsurface archaeological resources. However, it is possible that unanticipated archaeological deposits could be encountered

and damaged during the ground-disturbing activities associated with construction (such as grading and excavation), especially if those activities occur in less-disturbed buried sediments. Consequently, the following mitigation measure is necessary to ensure that potential impacts to archaeological resources are reduced to a less than significant level.

Mitigation Measure

CUL-1 Unanticipated Discovery of Cultural Resources

In the event that archaeological resources are encountered during ground-disturbing activities, work within 50 feet of the find shall be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archeology (National Park Service 1983) shall be contacted immediately to evaluate the find. If the find is prehistoric, then a Native American representative shall also be contacted to participate in the evaluation of the find. The County shall consider the mitigation recommendations of the qualified archeologist. The County and the project applicant shall consult and agree upon implementation of a measure or measures, such as avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures, that the county and project applicant deem feasible and appropriate. If the find is potentially eligible for listing in the California Register of Historical Resources (CRHR), evaluation may require the preparation of a treatment plan and archaeological testing. If the discovery proves to be eligible for listing in the CRHR and cannot be avoided by the project, additional work such data recovery excavation may be warranted to mitigate any significant impacts to cultural resources to less than a significant level. The County shall review and approve the treatment plan and archeological testing as appropriate.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The cultural resources records search did not identify cemeteries or archaeological resources containing human remains within the site. However, the discovery of human remains is always a possibility during ground disturbances, as would be required for future development within the site. Human burials outside of formal cemeteries often occur in prehistoric archaeological contexts. In addition to being potential archaeological resources, human burials have specific provisions for treatment in Section 5097 of the California Public Resources Code. Additionally, the California Health and Safety Code (Sections 7050.5, 7051, and 7054) has specific provisions for the protection of human burial remains. Existing regulations address the illegality of interfering with human burial remains, and protects them from disturbance, vandalism, or destruction. Public Resources Code Section 5097.98 also addresses the disposition of Native American burials, protects such remains, and establishes the NAHC as the entity to resolve any related disputes.

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 prehistoric, the coroner will notify the 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 scientific removal and nondestructive analysis of human remains and items associated with Native American

burials. Compliance with Public Resources Code Section 5097.98 and State of California Health and Safety Code Section 7050.5 would ensure impacts to human remains are less than significant.

LESS THAN SIGNIFICANT IMPACT

6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in a 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?	☐	☐	■	☐

As a state, California is one of the lowest per capita energy users in the United States, ranked 50th in the nation, due to its energy efficiency programs and mild climates (United States Energy Information Administration [USEIA] 2022). Electricity and natural gas are primarily consumed by the built environment for lighting, appliances, heating and cooling systems, fireplaces, and other uses such as industrial processes and transportation. Energy resources consumed by proposed project activities would primarily be petroleum fuels. Petroleum fuels are primarily consumed by on-road and off-road equipment in addition to some industrial processes, with California being one of the top petroleum-producing states in the nation (USEIA 2022). Gasoline, which is used by light-duty cars, pickup trucks, and other vehicles, is the most used transportation fuel in California with 12.5 billion gallons sold in 2020 (California Energy Commission [CEC] 2022). Diesel, which is used primarily by heavy-duty trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles, is the second most used fuel in California with 2.9 billion gallons sold in 2020 (CEC 2022). Energy consumption is directly related to environmental quality in that the consumption of nonrenewable energy resources releases criteria air pollutant and greenhouse gas (GHG) emissions into the atmosphere. The environmental impacts of air pollutant and GHG emissions associated with the project's energy consumption are discussed in detail in Section 3, *Air Quality*, and Section 8, *Greenhouse Gas Emissions*, respectively.

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

Construction Energy Consumption

Energy use during project construction would be primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and construction worker travel to and from the project site. Energy use would be typical of similar-sized construction projects in the region. Furthermore, the proposed project would utilize construction contractors who demonstrate compliance with the provisions of the CCR Title 13 Sections 2449 and 2485, which restrict the idling of heavy-duty diesel vehicles and govern the accelerated retrofitting, repowering, or replacement of

heavy-duty diesel on- and off-road equipment. Applicable regulatory requirements such as 2019 California's Green Building Standards Code (CALGreen; CCR Title 24, Part 11), mandate that future infrastructure projects comply with construction waste management practices to divert a minimum of 65 percent of construction and demolition debris. These practices would result in efficient use of energy during construction. Further, in the interest of both environmental awareness and cost efficiency, construction contractors would not reasonably be expected to utilize fuel in a manner that is wasteful or unnecessary. As such, construction would not result in wasteful, inefficient, or unnecessary consumption of energy resource during construction. This impact would be less than significant.

Operational Energy Consumption

Operation of the proposed project would result in the additional consumption of natural gas and electricity. However, new development would be subject to the energy conservation requirements of the California Energy Code (CCR Title 24, Part 6, California's Energy Efficiency Standards for Residential and Nonresidential Buildings) and the California Green Building Standards Code (CCR Title 24, Part 11). The California Energy Code (CEC) provides energy conservation standards for all new and renovated commercial and residential buildings constructed in California. The CEC applies to the building envelope, space-conditioning systems, and water-heating and lighting systems of buildings and appliances and provides guidance on construction techniques to maximize energy conservation. Minimum efficiency standards are given for a variety of building elements, including appliances; water and space heating and cooling equipment; and insulation for doors, pipes, walls, and ceilings. The CEC emphasizes saving energy at peak periods and seasons and improving the quality of installation of energy efficiency measures. The California Green Building Standards Code sets targets for energy efficiency; water consumption; dual plumbing systems for potable and recyclable water; diversion of construction waste from landfills; and use of environmentally sensitive materials in construction and design, including ecofriendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels. Furthermore, five of the proposed buildings include the installation of rooftop solar which would offset energy consumption that derives from fossil fuels. Therefore, operation of the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The proposed project would involve the construction of storage and warehousing facilities, offices, a parking lot, and other agricultural accessory structures. The County has several policies in place to reduce emissions related to energy consumption in area sources that the proposed project would be required to abide by. Such policies include (County of Merced 2013):

LU-9.1: Require new residential subdivision lots and new commercial, office, industrial, and public buildings to be oriented and landscaped to enhance natural lighting and solar access in order to maximize energy efficiency.

LU-9.2: Promote sustainable building practices, including the requirements of Title 24 of the California Administrative Code

LU-9.4: Require all new County buildings be constructed to green building standards and all existing County buildings to be retrofitted with energy efficient technologies.

6.1: The County shall ensure that new construction meets Title 24 energy conservation requirements.

As described above, the proposed project would be required to adhere to the CCR Title 24, Part 6 which sets requirements for California's Energy Efficiency Standards for residential and non-residential buildings. As such, the proposed project would adhere to design standards that govern indoor/outdoor lighting, mechanical systems, solar, electrical power distribution, among other features (CEC 2019). Regulatory compliance with Merced County polices would also ensure compliance with relevant State policies. Therefore, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

This page intentionally left blank.

7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. 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?	☐	☐	■	☐
2. Strong seismic ground shaking?	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. 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 wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	■	☐
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■	☐	☐

The project site is located within the Great Valley geomorphic province, one of 11 major provinces in California (California Geological Survey [CGS] 2002. These provinces are "naturally defined geologic regions that display a distinct landscape or landform" (CGS 2002). The Great Valley is an alluvial plain approximately 50 miles wide and 400 miles long. It begins in the Sacramento Valley in the north and extends through the southern part of the San Joaquin Valley. The Great Valley contains sediments deposited since the Jurassic period, approximately 160 million years ago (CGS 2002).

According to the CGS, the project site is not located in an Alquist-Priolo Fault Zone. There are no faults present on the project site, and the closets faults to the project site are the San Joaquin Fault and Ortigalita Fault, approximately 26 and 31 miles southwest of the project site, respectively (CGS 2016; USGS 2022). No specific liquefaction hazard areas have been identified within Merced County (CGS 2016; County of Merced 2013); however, the potential for liquefaction exists throughout the San Joaquin Valley due to unconsolidated sediments and a high-water table (County of Merced 2013). Topography at the project is flat and does not exhibit an elevation that would be conducive to landslide activity.

a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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?

a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

The proposed project involves the expansion of existing agricultural facilities and on-site parking lot. The project site is not transected, partially or fully, by any Alquist-Priolo earthquake fault zones, and the nearest Alquist-Priolo earthquake fault zone, the Ortigalita Fault Zone, is approximately 31 miles southwest of the project site (CGS 2016). According to the Merced County General Plan, the Ortigalita Fault is the principal source of potential seismic activity within Merced County, and the project site is located in an area that may be subject to moderate seismic damage as a result of ground shaking (County of Merced 2013). Liquefaction hazards are reasonably assumed to be present in the wetlands area of Merced County, adjacent to the San Joaquin River and west of State Route 99 (County of Merced 2013). The project site is approximately 2.25 miles northeast of State Route 99, an area that is not reasonably assumed to contain conditions conducive to liquefaction hazards. The potential for geologic hazards to cause substantial adverse effects due to ground shaking and liquefaction would be addressed through mandatory compliance with the 2019 California Building Code (CBC) seismic design provisions. The 2019 CBC incorporates the latest seismic design standards for structural loads and materials, as well as provisions from the National Earthquake Hazards Reduction Program, to mitigate losses from an earthquake and provide the latest provisions to ensure earthquake safety. The earthquake design requirements of the CBC consider the occupancy category of the structure, site class, soil classifications, and various seismic coefficients. The CBC provides standards for various aspects of construction, including but not limited to excavation, grading, earthwork, construction, site preparation, fill placement, retaining wall design, and foundation design. While the proposed project may be susceptible to some seismic-related hazards, the proposed project would be required to minimize this risk, to the extent feasible, through incorporation of applicable CBC standards. Therefore, with conformance to the CBC,

impacts involving the potential for fault rupture, ground shaking, or liquefaction to result in substantial adverse effects would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The project site exhibits a flat topography which is not susceptible to landslides. The surrounding landscape is comprised of flat, agricultural land which is also not conducive to conditions which would induce landslides. Therefore, the proposed project would not expose people or structures to potential substantial adverse effects involving landslides. There would be no impact.

NO IMPACT

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

The proposed project involves construction and grading activities that would result in soil erosion. Soil erosion can also be caused by strong wind and/or earth-moving operations during construction. This would be minimized through compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges associated with construction and land disturbance activities (Construction General Permit), enforced through Order 2009-0009, as amended by Orders 2010-0014-DWQ and 2012-006-DWQ (SWRCB 2012). In order to obtain a Construction General Permit, a Storm Water Pollution Prevention Plan (SWPPP) must be developed. A SWPPP includes measures that ensure that all pollutants and their sources are controlled, and best management practices (BMPs) are followed, including those related to soil erosion. Such BMPs may include but would not be limited to the use of temporary de-silting basins, construction vehicle maintenance in staging areas to avoid leaks, and installation of erosion control blankets. The construction SWPPP and BMPs would be designed to prevent sedimentation of both on-site and off-site surface waters from construction activities. Upon completion of the proposed project, the new facilities would not include components that would result in ongoing erosion or loss of topsoil. Therefore, the proposed project would not result in substantial soil erosion or the loss of topsoil, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The proposed project involves the expansion of existing agricultural facilities and on-site parking lot. Although the proposed project could be exposed to seismic hazards, the project is not anticipated to adversely affect soil stability or increase the potential for local or regional landslides, subsidence, liquefaction, or collapse. As discussed previously, the project site is in an area that is not reasonably assumed to contain conditions conducive to liquefaction hazards (County of Merced 2013). The project site is flat and thus there is no potential for landslides to occur. Therefore, the proposed project would not exacerbate hazards related to unstable soil and would not result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Expansive soils, soils that shrink and swell as a result of moisture changes, typically exhibit a high percentage of clay in their overall composition. The project site contains four types mapped soil units: Atwater loamy sand with zero to three percent slopes, Delhi loamy fine sand with zero to three percent slopes, Delhi sand with zero to three percent slopes, and Delhi sand with three to eight percent slopes. All soils located on the project site contain less than ten percent clay and are primarily composed of sand and loamy sand (USDA 2022). These types of earth materials are not conducive to the types of clay materials that create expansive soil conditions. Therefore, the project would not introduce risk to life or property as a result of expansive soils. No impact would occur.

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?

According to the site plans, the proposed project would construct six septic expansions on the project site, to meet Merced County Code 9.54.040.D and is not intended for future expansion. The installation or modification of on-site septic systems would require compliance with Merced County Unified Development Ordinance Chapter 18.40, *Performance Standards*, which requires compliance with the CCR Title 23, Chapter Three, and the California Water Code, Division Seven (County of Merced 2019). These standards require that a septic system is sized and designed with respect to on-site soil capabilities that would ensure the safe treatment and disposal of wastewater and the maintenance of groundwater quality. Further, pursuant to Merced County Ordinance No. 1947, a permit must be obtained from the Merced County Division of Environmental Health prior to commencing construction, repair, or abandonment or destruction of any onsite wastewater treatment system (County of Merced 2016). To obtain a permit, percolation test results, soil analyses and reports, groundwater data, loading rates, and plot plans must be submitted to the Merced County Division of Environmental Health for approval prior to the issuance of a permit. Ordinance No. 1947 includes design standards and criteria as well to ensure septic systems will not degrade the surrounding environment. Therefore, with mandatory regulatory compliance, the proposed project would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Paleontological sites are those that show evidence of pre-human existence. There are no known sites of paleontological significance within Merced County (County of Merced 2009). According to the University of California Museum of Paleontology (UCMP) the project site is not located in an area known to have produced significant paleontological resources (UCMP 2022). The project site is on a previously developed area. Given the nature of the proposed project and existing site conditions, project-related ground disturbance (i.e., excavations) would occur within previously disturbed areas. Although the entirety of the project site has been disturbed by previous grading and agricultural activities, in addition to construction activities associated with existing buildings, it is possible that future grading and construction activities would result in the discovery of

paleontological resources. Implementation of Mitigation Measures GEO-1 and GEO-2 would be required to reduce impacts to palaeontologic resources to a less-than-significant level.

Mitigation Measures

GEO-1 Paleontological Worker Environmental Awareness Program

Prior to the start of construction, a Qualified Professional Paleontologist, defined as a paleontologist who meets the Society of Vertebrate Paleontology (SVP) standards, or his or her designee shall conduct a paleontological Worker Environmental Awareness Program training for all construction personnel participating in subsurface excavation regarding unanticipated discoveries and the procedures for notifying paleontological staff should fossils be discovered by construction staff. A training acknowledgment form shall be signed by all workers who receive the training and retained by SCWD.

GEO-2 Unanticipated Discovery of Paleontological Resources

In the event a fossil is discovered during construction of the project, excavations within 50 feet of the find shall be temporarily halted or delayed until the discovery is examined by the Qualified Professional Paleontologist in accordance with SVP standards. The project applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. If the find is determined to be significant, the Qualified Professional Paleontologist shall complete the mitigation outlined below to mitigate impacts to significant paleontological resources:

- Salvage of unearthed fossil remains and/or traces (e.g., tracks, trails, burrows)
- Washing of screen to recover small specimens
- Preparation of salvaged fossils to a point of being ready for curation (e.g., removal of enclosing matrix, stabilization and repair of specimens, and construction of reinforced support cradles)
- Identification, cataloging, curation, and provisions for repository storage of prepared fossil specimens.

Work within the immediate vicinity shall continue only after mitigation outlined above has been completed by the Qualified Professional Paleontologist.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

This page intentionally left blank.

8 Greenhouse Gas Emissions

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

Overview of Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of greenhouse gas (GHG) emissions contributing to the "greenhouse effect," a natural occurrence which takes place in Earth's atmosphere and helps regulate the temperature of the planet. Radiation from the sun hits Earth's surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions.

GHG emissions occur both naturally and as a result of human activities, such as fossil fuel burning, decomposition of landfill wastes, raising livestock, deforestation, and some agricultural practices. GHGs produced by human activities (anthropogenic GHGs) include carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis (Intergovernmental Panel on Climate Change [IPCC] 2021).[1]

The United Nations IPCC expressed that the rise and continued growth of atmospheric CO_2 concentrations is unequivocally due to human activities in the IPCC's Sixth Assessment Report (2021). Human influence has warmed the atmosphere, ocean, and land, which has led the climate to

[1] The Intergovernmental Panel on Climate Change's (2021) *Sixth Assessment Report* determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change's (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWP of 25.

warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850 through 2019, a total of 2,390 gigatonnes of anthropogenic CO_2 was emitted. It is likely that anthropogenic activities have increased the global surface temperature by approximately 1.07 degrees Celsius between the years 2010 through 2019 (IPCC 2021). Furthermore, since the late 1700s, estimated concentrations of CO_2, methane, and nitrous oxide in the atmosphere have increased by over 43 percent, 156 percent, and 17 percent, respectively, primarily due to human activity (U.S. EPA 2021b). Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature. Potential climate change impacts in California may include loss of snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (California Natural Resource Agency 2018).

Significance Thresholds

Individual projects do not generate sufficient GHG emissions to directly influence climate change. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (*CEQA Guidelines*, Section 15064[h][1]).

Section 15064.4 of the *CEQA Guidelines* recommends that lead agencies quantify GHG emissions of projects and consider several other factors that may be used in the determination of significance of GHG emissions from a project, including the extent to which the project may increase or reduce GHG emissions; whether a project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHG emissions.

CEQA Guidelines Section 15064.4 does not establish a threshold of significance, and instead calls for a careful judgment by the lead agency to the best extent possible and based on scientific and factual data to describe, calculate, or estimate GHG emissions. Lead agencies have the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds developed by other public agencies, or suggested by other experts, as long as any threshold chosen is supported by substantial evidence (*CEQA Guidelines* Section 15064.7[c]).

According to *CEQA Guidelines* Section 15183.5, project analysis can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (AEP) in their white paper, *Best Practices in Implementing Climate Action Plans*, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions (AEP 2018). To date, neither the County of Merced nor SJVAPCD has adopted a qualified Climate Action Plan to address significance. In Addition, SJVAPCD's Best Performance Standards approach does not include measures to address the 2030 target established by SB 32.

In the absence of any adopted numeric threshold, the significance of the project's GHG emissions is evaluated consistent with *CEQA Guidelines* Section 15064.4(b) by considering whether the project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The County of Merced has not adopted a numerical significance threshold for assessing impacts related to GHG emissions and has not adopted a local plan for reducing GHG emissions. Neither has the SJVAPCD,

the California Office of Planning and Research, CARB, the California Air Pollution Control Officers Association (CAPCOA), or any other state or applicable regional agency has adopted a numerical significance threshold for assessing GHG emissions that is applicable to the project.

Therefore, the significance of the project's potential impacts regarding GHG emissions and climate change are evaluated solely on consistency with plans and polices adopted for the purposes of reducing GHG emissions and mitigating the effects of climate change. The most directly applicable adopted regulatory plans to reduce GHG emissions are the 2017 Scoping Plan, the Merced County Association of Governments (MCAG)'s 2018 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and Merced County 2030 General Plan. GHG emissions from the construction and operation of the project are provided for informational purposes

Methodology

Calculations of CO_2, methane, and nitrous oxide emissions are provided to identify the magnitude of potential project effects. This analysis focuses on CO_2, methane, and nitrous oxide because these make up 98 percent of all GHG emissions by volume and are the GHG emissions the project would emit in the largest quantities (IPCC 2014). Emissions of all GHGs are converted into their equivalent GWP in terms of CO_2 (i.e., CO_2e). Minimal amounts of other GHGs (such as chlorofluorocarbons [CFCs]) could be emitted; however, these other GHG emissions would not substantially add to the total GHG emissions. GHG emissions associated with the proposed project were calculated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0, with the assumptions described under Section 3, *Air Quality*, in addition to the following:

- The project's CalEEMod model uses default assumptions for energy, solid waste.
- The project would include rooftop solar panels. Since this is not a project requirement, and the kilowatt capacity is unknown, it was not modeled for the analysis.
- Construction emissions were amortized over the project's estimated 30-year lifetime pursuant to guidance from the Association of Environmental Professionals (2016).

Impact Analysis

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

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

As mentioned in *Significance Thresholds*, neither the County of Merced nor SJVAPCD have adapted a communitywide Climate Action Plan or other CEQA-compliant GHG reduction plan. Therefore, the regional GHG reduction policies and regulations most applicable to the project are those found in CARB's 2017 Scoping Plan,[2] MCAG's 2018 RTP/SCS, and the County's 2030 General Plan.

2017 Scoping Plan

The principal State plan and policy related to GHG emissions is AB 32, the California Global Warming Solutions Act of 2006, and the follow up, SB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020 and the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. Pursuant to the SB 32 goal, the 2017 Scoping Plan was created to outline

2 The draft 2022 Scoping Plan has not been adopted and would address the State's Net Zero goal by 2045. The 2017 Scoping Plan is the most relevant plan to date. In addition, the 2045 Net Zero goal is not relevant to the project since it would be constructed before 2030.

goals and measures for the state to achieve the reductions. CARB recommends statewide targets of no more than six metric tons of CO_2e per capita by 2030 and no more than two metric tons of CO_2e per capita by 2050 to achieve 2050 GHG reduction targets. The 2017 Scoping Plan's goals include reducing fossil fuel use and energy demand and maximizing recycling and diversion from landfills and ensuring that mitigation will benefit both the environment and the health of the surrounding communities. The project is subject to the latest Title 24 Green Building Code and Building Efficiency Energy Standards to ensure energy and water efficiency, material conservation and resource efficiency, and environmental quality consistent with the most current CALGreen requirements for construction and operations. Operations of the project are also consistent with the scoping plan, as it is subject to CALGreen Building Code for energy efficiency, as well as expanding storage capacity to limit operational truck trips. The proposed project would allow a reduction in truck trips off site when the storage of product off-site is reduced or eliminated entirely. Thus, an overall reduction in vehicle miles traveled from mobile sources. In addition, the project would be consistent with the 2017 Scoping Plan's goal of increasing renewable energy in the state, and energy efficiency efforts to reduce GHG emissions by installing solar panels on rooftop to meet the State's climate goals.

Merced County Association of Governments 2018 RTP/SCS

In 2018, MCAG adopted the 2018 RTP/SCS. The MCAG RTP/SCS is forecast to help California reach its GHG reduction goals by providing a framework for transportation infrastructure needs and planned growth patterns that reduce transportation related GHG consistent with the Sustainable Communities and Climate Protection Act (SB 375). The 2018 RTP/SCS includes 18 goals with corresponding implementation strategies for enhancing transportation services and goods movement Strategies such as improved goods movement, a regional active transportation system, reducing congestion on the National Highway System and reducing nonrenewable energy within the region to support an integrated land use and transportation system. The project would reduce truck trips required to move goods/commodities, which would lower the overall vehicle miles traveled for operations. The project would be subject to CALGreen Building Code that reduces energy demand. It would also install solar panels and provide bike facilities to support active transportation network and reduce nonrenewable energy demand. Therefore, the proposed project would be consistent with the GHG emission reduction strategies contained in the 2018 RTP/SCS.

2030 Merced County General Plan

In 2013, the Merced County Board of Supervisors adopted the 2030 Merced County General Plan. This long-term plan is a comprehensive blueprint for future land use and development, and covers many topics, with Air Quality being one of them. In this element, or "chapter", the General Plan sets out a vision to achieve GHG reduction with a total of six goals and corresponding implementation strategies. These strategies reduce GHG emissions by changing land use patterns and reducing automobile travel. While Merced County is a rural area and not compact, the primary role of the strategies is to direct development towards urban centers to minimize parcellation on agricultural and open space lands. The project's consistency with the 2030 General Plan is discussed in Section 11 *Land Use*.. As shown therein, the proposed project would be consistent with the actions and measures contained in these local GHG reduction plans.

Table 12 Project Consistency with 2030 General Plan

Action	Project Consistency
Greenhouse Gas Reduction and Climate Change Adaptation	

Action	Project Consistency
Reduce air pollutants and greenhouse gas emissions and anticipate adaptation due to future consequences of global and local climate change. ▪ **Policy AQ-1.1**: Energy Consumption Reduction o Encourage new residential, commercial, and industrial development to reduce air quality impacts from energy consumption. ▪ **Policy AQ-1.6**: Air Quality Improvement o Support and implement programs to improve air quality throughout the County by reducing emissions related to vehicular travel and agricultural practices.	**Consistent.** The project would be designed and operated to meet the applicable requirements of CALGreen and the City's Green Building Code and includes the installation of solar panels on the rooftop for efficient energy consumption. In addition, the proposed project will increase the storage capacity, reducing truck tricks to improve operations, and reducing vehicular travel related to agricultural practices for production.
Economic Base Diversification	
Support the existing agricultural economy while expanding infrastructure and existing/new industries in order to increase employment opportunities and attract new investment. ▪ **Policy ED-2.3**: Sustainable Business Development. Encourage the development of environmentally sustainable businesses that capitalize on industry sector strengths, particularly new emerging green technologies such as solar energy.	**Consistent.** This project would install solar panels, thus reducing the demand for nonrenewable sources. Energy efficiency best practices would be applied to the project under the CALGreen Building Code.

Source: County of Merced 2013.

GHG Emissions

Construction of the proposed project would generate temporary GHG emissions primarily from the operation of construction equipment on-site as well as from vehicles transporting construction workers to and from the project site and heavy trucks to transport building materials. As estimated, the project's construction activities would generate a total of approximately 2,287 MT CO_2e emissions (Appendix A). As construction emissions occur for a limited period of a project's lifetime, as a standard practice, GHG emissions from construction are amortized over a presumed project lifetime. As shown in Table 13the proposed project's amortized construction-related emissions would be 76 MT CO_2e.

Operation of the proposed project would generate GHG emissions associated with area sources (e.g., landscape maintenance), energy and water usage, and wastewater and solid waste generation. Table 13 combines the estimated construction and operational GHG emissions associated with development of the project. As shown therein, the project would generate approximately 5.9 MT of CO_2e per service person year during operation.

Table 13 Combined Annual GHG Emissions

Emission Source	Annual Emissions (MT of CO_2e per year)
Construction Year	
2023	434
2024	648
2025	404
2026	129

Emission Source	Annual Emissions (MT of CO_2e per year)
2027	292
2028	259
2029	121
Total	**2,287**
Amortized over 30 years	**76**
Operational	**569**
Area	<1
Energy	294
Mobile	<1
Solid Waste	68
Water	207
Total Emissions	**645**
Service Population (Existing Employees)	**110**
Emissions per Service Person[1]	**5.9**

MT = metric tons; CO_2e = carbon dioxide equivalents

[1] Emissions per SP rounded up to the nearest tenth.

Notes: Emissions modeling was completed using CalEEMod. See Appendix A for modeling results.

As stated previously, GHG emissions from the construction and operation of the project are provided for informational purposes. The significance of the project's potential impacts regarding GHG emissions and climate change are evaluated solely on consistency the 2017 Scoping Plan, MCAGs 2018 RTP/SCS, and Merced County 2030 General Plan. As described in the preceding analysis, the project would be consistent with these plans. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	■	☐	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	■	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	☐	■
d. Be located on a site that is included on a list of hazardous material 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 in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	■
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	■

The project site is developed with and currently occupied by an agricultural processing plant, including almond processing structures, storage warehouses, and additional buildings to support the business operation. Shallow soils located in agricultural areas are commonly impacted with hazardous materials such as petroleum hydrocarbons (from the historical use of smudge pots), organochlorine pesticides (OCPs), and arsenic.

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

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Demolition and Construction

Existing buildings on the project site may contain asbestos and/or lead-based paint (LBP) due to their age. Structures built before the 1970s were typically constructed with asbestos-containing materials (ACM). In addition, since many of the existing buildings were constructed before the time of the federal ban on the manufacture of polychlorinated biphenyls (PCBs), it is possible that light ballasts in the structures contain PCBs. Demolition of existing structures could therefore result in health hazard impacts to workers if not remediated prior to construction activities. However, demolition and construction activities would be required to adhere to the San Joaquin Valley Air Pollution Control District (APCD) Rule 4002, which requires compliance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation (40 CFR, Part 61, Subpart M) and governs the proper handling and disposal of ACM for demolition, renovation, and manufacturing activities, and California Division of Occupational Safety and Health (Cal/OSHA) regulations regarding lead-based materials. CCR Section 1532.1 requires testing, monitoring, containment, and disposal of lead-based materials, such that exposure levels do not exceed Cal/OSHA standards. DTSC has classified PCBs as a hazardous waste when concentrations exceed 50 parts per million in non-liquids, and the California Department of Toxic Substances Control (DTSC) requires that materials containing those concentrations of PCBs be transported and disposed of as hazardous waste. Light ballasts to be removed would be evaluated for the presence of PCBs and managed appropriately. With required adherence to APCD, Cal/OSHA, and DTSC regulations regarding ACM, LBP, and PCBs, demolition activities would not create a significant hazard to the public or the environment through accidental release or the routine transport use, or disposal of hazardous materials.

Normal operating amounts of construction fluids (e.g., diesel fuel, motor oil, etc.) would be on-site during project construction. During construction of the proposed project, accidental conditions could occur as a result of any of the following, which may occur during ground disturbance and earthmoving phases of construction: direct dermal contact with hazardous materials, incidental ingestion of hazardous materials, or inhalation of airborne dust released from dried hazardous materials. The transportation of hazardous materials could result in accidental spills, leaks, toxic releases, fire, or explosion. Limited quantities of hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, and oils would be used to fuel and maintain vehicles and motorized equipment. Appropriate documentation for all hazardous waste that is transported, stored, or used in connection with specific project-site activities would be provided as required for compliance with existing hazardous materials regulations codified in the CCR. Transport, use, and storage of hazardous materials during the construction of the proposed project would be conducted pursuant to all applicable local, state, and federal laws, including but not limited to Title 49 of the Code of Federal Regulations implemented by CCR Title 13, which describes strict regulations for the safe

transportation of hazardous materials, and in cooperation with the County's Department of Environmental Health. Adherence to existing hazardous materials regulations would provide compliance with existing safety standards related to the handling, use and storage of hazardous materials, and compliance with the safety procedures mandated by applicable federal, state, and local laws and regulations.

Operation

Potential hazardous materials, such as fuels/oils, paint products, lubricants, solvents, cleaning products, and pesticides/herbicides may be used and/or stored on-site during operation of the proposed project. Operation of the proposed project would likely involve an incremental increase in the use of common household and commercial hazardous materials, such as cleaning and degreasing solvents, fertilizers, pesticides, and other materials used in regular property and landscaping maintenance. Transport, use, and storage of hazardous materials during operation of the proposed project would be conducted pursuant to all applicable local, state, and federal laws, including Title 49 of the Code of Federal Regulations implemented by CCR Title 13. As required by California Health and Safety Code Section 25507, a business shall establish and implement a Hazardous Materials Business Emergency Plan for emergency response to a release or threatened release of a hazardous material. As required, the hazardous materials would be stored in locations according to compatibility and in storage enclosures (i.e., flammable material storage cabinets and biological safety cabinets) or in areas or rooms specially designed, protected, and contained for such storage, in accordance with applicable regulations.

Under the California Hazard Communication Regulation, chemical manufacturers, distributors, or importers must provide Safety Data Sheets (formerly Material Safety Data Sheets) for each hazardous chemical to downstream users to communicate information on these hazards. Businesses are also required to train employees on protocols in the event of a chemical spill or a leak from a sealed container (California Department of Industrial Relations 2020).

Adherence to Merced County Department of Public Health, Division of Environmental Health (MCDEH) programs and regulations would reduce the potential for contamination from hazardous materials through proper cleanup, disposal, and remediation. The MCDEH regulates and enforces the provisions of the Uniform Fire Code relating to hazardous materials, including the use and storage of hazardous materials that are ignitable, reactive, corrosive, or toxic. Businesses using such materials are subject to permitting and inspection (Merced County 2022). Therefore, impacts due to reasonably foreseeable upset and accident conditions during operation of the project would be less than significant.

However, due to the limited quantities of these materials to be used by the project, they are not considered hazardous to the public at large. Impacts associated with construction and/or operation of the project would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

No existing or proposed schools are within 0.25 mile of the project site. Therefore, the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. There would be no impact.

NO IMPACT

d. Would the project be located on a site that is included on a list of hazardous material 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?

A review of the Cortese List online data resources indicates that the project site and adjacent properties are not associated with Cortese sites or sites that are included on a list of hazardous material release sites compiled pursuant to Government Code Section 65962.5 (California Environmental Protection Agency 2022). However, based on the past and current agricultural use of the property, there may be residual agricultural pesticides and arsenic present in soils located on-site. In addition, oil and diesel fuel (possibly containing lead or other metals) is handled and stored on-site. Therefore, soils impacted with total petroleum hydrocarbons (TPH), OCPs, and metals may be disturbed during grading and construction-related work on-site. TPH, OCPs, and metals may also be encountered in soils near the agricultural water mixing station, stormwater drainage basins, or in the soil piles present on the western portion of the project site.

There is a potential for on-site employees and construction workers to be exposed to contaminants via dust or soil on the project during ground-breaking construction activities. Because the site is not on a list of hazardous materials sites and there are no identified or reported leaks or accidental spills or releases of hazardous materials, there is a lower potential for exposure to significant quantities of the above identified potential hazardous materials.

Potentially significant unidentified impacts may exist at this project site and, as a result, could potentially create a significant hazard to the public or the environment during grading/construction and operation if identified. Implementation of Mitigation Measures HAZ-1 through HAZ-3 would reduce construction and operational hazardous material impacts to less than significant, when identified contaminated soils during construction are discovered.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

Mitigation Measures

HAZ-1 Subsurface Investigation

In the event that contaminated soils are identified during grading or construction, the project applicant shall retain a qualified environmental consultant (Professional Geologist [PG] or Professional Engineer [PE]) to conduct a subsurface investigation in areas of proposed development at the project site. The subsurface investigation shall be conducted conforming to the recommended guidelines established by the American Society for Testing and Materials in Standard E1903-11 and include, but are not limited to, completion of soil sampling and analysis for TPH, volatile organic compounds, semi-volatile organic compounds, OCPs, and metals and identify the level of contamination if detected. The results of the subsurface investigation shall provide requirements to address identified hazards and indicate when and how to apply those recommended actions in relation to proposed project activities to reduce impacts to a less than significant level per industry standards as further described and in Mitigation Measure HAZ-2. As part of the subsurface investigation, analytical results shall be screened against the San Francisco Bay RWQCB environmental screening levels (ESLs). These ESLs are risk-based screening levels for direct exposure of a construction worker under various depth and land use scenarios.

Mitigation Measure HAZ-2 shall be required if contaminants are detected at the project site as identified by the subsurface investigation. As identified with implementation of Mitigation Measure HAZ-2, appropriate steps shall be undertaken to protect site workers during project construction

and if necessary, the public during project operation. This would include the preparation of a Soil Management Plan (see Mitigation Measure HAZ-2).

If contaminants are detected at concentrations exceeding hazardous waste screening thresholds for contaminants in soil (CCR Title 22, Section 66261.24), appropriate steps shall be undertaken as identified with implementation of Mitigation Measures HAZ-2 and HAZ-3 to protect site workers during project construction and if necessary, the public during project operation (see Mitigation Measures HAZ-2 and HAZ-3).

HAZ-2 Soil Management Plan

If impacted soils are present onsite, the project applicant shall prepare a Soil Management Plan (SMP) or equivalent document prior to construction. The SMP, or equivalent document, shall be prepared to address on-site handling and management of impacted soils or other impacted wastes, and reduce hazards to construction workers and offsite receptors during construction. The SMP must establish remedial measures and/or soil management practices to ensure construction worker safety, the health of future workers and visitors, and the offsite migration of impacts from the site. These measures and practices may include, but are not limited to:

- Stockpile management including stormwater pollution prevention and the installation of BMPs
- Proper disposal procedures of impacted materials
- Monitoring and reporting
- A health and safety plan for contractors working at the site that addresses the safety and health hazards of each phase of site construction activities with the requirements and procedures for employee protection
- The health and safety plan will also outline proper soil handling procedures and health and safety requirements to minimize worker and public exposure to hazardous materials during construction.

The County shall review and approve the SMP prior to demolition and grading (construction) and the project applicant shall review and implement the SMP prior to demolition and grading (construction).

If odorous or visually stained soils, other indications of hydrocarbon piping or equipment, or debris are encountered during ground-disturbing activities, work in the immediate area shall be halted and a qualified environmental consultant shall be contacted immediately to evaluate the situation. Work may continue on other parts of the project while impacted soil investigation and/or remediation takes place.

HAZ-3 Remediation

Where soil is identified during implementation of Mitigation Measure HAZ-1 (subsurface investigation) to be present within the construction envelope at chemical concentrations exceeding hazardous waste screening thresholds for contaminants in soil (CCR Title 22, Section 66261.24), the project applicant shall conduct additional analytical testing and recommend soil disposal recommendations, or consider other remedial engineering controls, as necessary.

The qualified environmental consultant shall utilize the development site analytical results for waste characterization purposes prior to offsite transportation or disposal of potentially impacted soils or other impacted wastes. The qualified environmental consultant shall provide disposal

recommendations and arrange for proper disposal of the waste soils or other impacted wastes (as necessary), and/or provide recommendations for remedial engineering controls, if appropriate.

Remediation of impacted soils and/or implementation of remedial engineering controls may require additional delineation of impacts; additional analytical testing per landfill or recycling facility requirements; soil excavation; and offsite disposal or recycling.

The County shall review and approve the development site disposal recommendations prior to transportation of waste soils offsite and review and approve remedial engineering controls, prior to construction. The project applicant shall implement the disposal recommendations prior to transportation of waste soils offsite, and implement the remedial engineering controls prior to construction.

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?

The closest airport to the project site is the Merced Regional Airport, approximately 10 miles southeast of the project site. Given this distance, the site is not located within an airport land use plan. Thus, there would be no safety hazard or excessive noise for people working in the project area.

NO IMPACT

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

As discussed below in Section 17, *Transportation*, direct access to the project site is provided by four ingress and egress points located on West Harding Road, north of the parcel, separated into two automobile and two truck access points. The proposed project would not add or remove existing access points to the project site, nor would the project alter the existing street network in its vicinity. However, construction equipment would be utilized which could temporarily delay traffic on roadways in the vicinity of the project. It is anticipated that such construction equipment, trucks, and vehicles would utilize SR-99, East Avenue, North Vincent Road, and West Harding Road to access the project site, and those roadways would be most impacted potentially hazardous roadway conditions while construction equipment and machinery is brought onto the project site. However, traffic generated during project construction is not anticipated to affect the performance of the circulation system. A temporary staging area would be located within the existing facility's property boundary to store all construction equipment. The staging area would be clearly defined and designated and would not be located in the public right of way. Therefore, the project would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

NO IMPACT

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

As described below in Section 20, *Wildfire*, the project is not located in an area classified as a very high fire hazard severity zone. The nearest very high fire hazard severity zone is about 40 miles east. The project is not within a designated CAL FIRE community at increased risk from wildfires.

Therefore, the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fire.

NO IMPACT

This page intentionally left blank.

10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	■	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	■	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(1) Result in substantial erosion or siltation on- or off-site;	☐	☐	■	☐
(2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	■	☐
(3) 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?	☐	☐	☐	■

The project site is currently developed with an almond processing facility and orchards. An existing stormwater basin is present at the southeast corner of the developed portion of the project site. The project site and vicinity are classified as Zone X (Area of Minimal Flood Hazard) (Federal Emergency Management Agency [FEMA] 2008). An east-west trending ditch is located on the southern border of the project site approximately 35 feet south of impervious surfaces on the project site. The proposed parking lot would be located approximately 27 feet from the ditch. There are no watercourses or wetlands on-site. The nearest riparian feature is the Merced River, located approximately 3.7 miles south of the project site. Groundwater is provided by on-site wells that draw water from the Turlock Subbasin. The project site is served by an existing on-site septic system.

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

The Clean Water Act establishes the framework for regulating discharges to waters of the United States in order to protect their beneficial uses. The Porter-Cologne Water Act (Division 7 of the California Water Code) regulates water quality within California and establishes the authority of the SWRCB and the nine RWQCBs. As discussed in Section 7, *Geology and* Soils, the SWRCB and RWQCBs issue NPDES permits to regulate specific water discharges, including a Construction General Permit for projects that disturb more than one acre.

Grading, demolition, and other construction activities associated with the proposed project could adversely affect water quality due to erosion resulting from exposed soils and the generation of water pollutants, including trash, construction materials, and equipment fluids. Soil disturbance associated with site preparation and grading activities would result in looser, exposed soils, which are more susceptible to erosion. Additionally, spills, leakage, or improper handling and storage of substances such as oils, fuels, chemicals, metals, and other substances from vehicles, equipment, and materials used during construction could contribute to stormwater pollutants or leach to underlying groundwater.

The proposed project would disturb more than one acre, and thus construction activities would be subject to the Construction General Permit, which requires visual monitoring of stormwater and non-stormwater discharges, sampling, analysis, and monitoring of non-visible pollutants, and compliance with all applicable water quality standards established for receiving waters potentially affected by construction discharges. Furthermore, the Construction General Permit requires implementation of a SWPPP that outlines project-specific BMPs to control erosion. Such BMPs may include, but are not limited to, the use of temporary desilting basins, construction vehicle maintenance in staging areas to avoid leaks, and installation of erosion control blankets. The construction SWPPP and BMPs would be designed to prevent sedimentation of both on-site and off-site surface waters from construction activities; prevent leaking of pollutants such as oil, grease, and chemicals; and implement spill control and response measures in the case of accidental releases. Compliance with these existing requirements would ensure that construction-phase water quality impacts would be less than significant.

Operation of the facility would not change with the addition or the proposed project, as the proposed project is primarily meant to install additional storage and warehousing structures rather than increase nut processing operations on-site. No additional water usage would occur during operation, as operations utilizing water would remain consistent with the current use of the site. Operation of the proposed project would be required to comply with County of Merced Ordinance No. 1923, which regulates stormwater discharges and sets standards for post construction storm

water management including the requirement of specific source control measures (County of Merced 2014). Implementation of these measures pursuant to Ordinance No. 1923 would ensure that the proposed project would incorporate design features that would enact requirements stipulated by the SWRCB for the purpose of reducing pollutants in storm water discharges (County of Merced 2014). Therefore, with regulatory compliance, this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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?

The project site overlies the Turlock Subbasin from which the project site extracts its domestic water supply (Todd Groundwater and Woodard & Curran 2022a). The project site's water infrastructure consists of two existing groundwater wells on-site, and the proposed project would add a third that would be used to supply on-site fire tanks and for existing orchards in the eastern portion of the project site. Based on the proposed expansion, additional supply would consist of approximately 30,000-gallons to accommodate a well and tank used to pump and store water to meet fire sprinkler requirements. As such, additional water pumped and used would be limited to replenishment of the 30,000-gallon tank in the event the fire sprinklers are triggered.

Overdraft conditions have been documented within the Turlock Subbasin (Todd Groundwater and Woodard & Curran 2022a). The Turlock Subbasin is identified by the California Department of Water Resources (DWR) as a high priority basin (DWR 2022). The Sustainable Groundwater Management Act (SGMA) required groundwater sustainability plans (GSPs) to be created and implemented by groundwater sustainability agencies (GSAs) to manage groundwater resources. The GSA for the western half of the Turlock Subbasin, the West Turlock Subbasin Groundwater Sustainability Agency, noted the average acre-feet per year (AFY) groundwater extracted from 2016-2021 was estimated to be 414,000 AFY, 104,000 AFY greater than the estimated sustainable yield of the Turlock Subbasin (Todd Groundwater and Woodard & Curran 2022a; Todd Groundwater and Woodard & Curran 2022b). The additional pumping of 30,000 gallons for the use of emergency fire suppression activities would contribute to the decrease of groundwater supplies on an emergency basis, and not yearly. As a reserve for emergency fire suppression, these 30,000 gallons of water would be minimal to the total extraction of groundwater supplies. In addition, the proposed project would be constructed in compliance with the standards of the California Fire Code and other relevant County standards which would reduce the chance of a fire, and thus reduce the chance of groundwater use and replenishment within the proposed 30,000-gallon tank. Consequently, the proposed project would not substantially decrease groundwater supplies such that the proposed project would impede sustainable groundwater management of the basin. Impacts would be less than significant. Impervious surfaces would be added to the project site in the form of new buildings and parking facilities. However, new buildings would be constructed on previously paved impervious surfaces. The proposed parking lots would be constructed on a compacted dirt lot at the western boundary of the project site, and runoff generated from these impervious surfaces would be redirected to existing on-site stormwater basins for groundwater retention in addition to the expansion of the existing storm basin. This additional retention basin would add capacity to accommodate runoff from any additional impervious systems. No existing orchards with permeable soil would be removed as a result of the proposed project. Therefore, the proposed project would not interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

LESS THAN SIGNIFICANT IMPACT

c.(i) 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 result in substantial erosion or siltation on- or off-site?

c.(ii) 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 substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

c.(iii) 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 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?

Construction of the proposed project would increase impervious surfaces at the project site through the addition new warehouse, storage, and ancillary facilities, and a parking lot at the western end of the project site. As discussed under criteria (a) construction would be subject to standards of the Construction General Permit which regulates stormwater and discharge and would reduce the risk of short-term erosion and increased runoff resulting from drainage alterations during construction. Site plans note an existing canal cross ditch is present along the project site's western and southern boundaries and is the nearest watercourse to the project site. Project construction would not alter the course of this ditch as project activities would not transect the ditch. Runoff would be controlled through compliance with County of Merced Ordinance No. 1923 which requires the implementation of low impact development design standards, including, but not limited to, avoiding excess grading, set back requirements on new development adjacent to waterways, and the preservation of new trees. In addition, stormwater would drain to the two existing stormwater basins. Consequently, the proposed project would not alter the existing drainage pattern of the site such that substantial erosion, flooding, or increased polluted runoff would occur. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c.(iv) 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 impede or redirect flood flows?

The project site is not depicted as being within a floodplain on Federal Emergency Management Agency (FEMA) maps and is classified as Zone X (Area of Minimal Flood Hazard) (FEMA 2008). The nearest flood hazard zone is located at the Merced River approximately 3.7 miles south of the project site. Therefore, flooding of the project site due to flood flows is unlikely. As a result, although construction of the proposed project would increase impervious surfaces on the project site, the project would not have the potential to redirect or impede flood flows. No impact would occur.

NO IMPACT

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

The project site is located approximately 90 miles inland from the California coast, and thus, is not subject to a tsunami hazard. There are no lakes near the project site; therefore, the project site would not be at risk of inundation from a seiche. As discussed under item (c[iv]) the project site is not depicted as being within a floodplain on FEMA maps, and flooding of the project site is unlikely due to the distance to the nearest flood hazard. Accordingly, the project would not risk release of pollutants due to inundation. No impact would occur.

NO IMPACT

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

The project site is within the jurisdiction of the Central Valley RWQCB's (CVRWQCB) Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin (CVRWQCB 2019). The stated primary goals on the Basin Plan include the enhancement of existing beneficial uses, the regulation of runoff, and management of salt concentrations in water sources. Implementation of the proposed project would not interfere with the attainment of these goals. The proposed project is not near any impaired water bodies, and construction activities would adhere to the provisions of an NPDES General Construction Permit which includes implementation of a SWPPP which would reduce the potential for polluted runoff, as discussed under item (a). Furthermore, as discussed under item (a) operation of the facility would not change with the addition or the proposed project, as the proposed project is primarily meant to install additional storage and warehousing structures rather than increase nut processing operations on-site. Operation of the proposed project would be required to comply with County of Merced Ordinance No. 1923, would ensure that the proposed project would incorporate design features that would enact requirements stipulated by the SWRCB for the purpose of reducing pollutants in storm water discharges (County of Merced 2014). Furthermore, the proposed project would not result in additional agricultural runoff that could worsen water quality beyond existing conditions, in contrast with the provisions of the Basin Plan. As such, the proposed project would not conflict or obstruct implementation of a water quality control plan.

The project site overlies the Turlock Subbasin which has been designated as a high-priority basin by the Department of Water Resources. The Turlock Subbasin is under the jurisdiction of the West Turlock Subbasin Groundwater Sustainability Agency (WTSGSA) and the East Turlock Subbasin

Groundwater Sustainability Agency (ETSGSA) who, collectively, prepared a GSP the Turlock Subbasin (Todd Groundwater and Woodard & Curran 2022a). According to the GSP, the estimated sustainable yield of the Turlock Subbasin is 310,700 AFY (Todd Groundwater and Woodard & Curran 2022a). As discussed under item (b) the additional supply would consist of a new well and 30,000-gallon tank to accommodate the fire sprinkler requirement for the site. Additional water pumped and used would be limited to replenishment of the 30,000-gallon tank in the event a fire occurs and fire sprinklers are triggered. As such, the well would need to be refilled only in the event of a fire requiring the use of this tank. The proposed project would be subject to the requirements of the GSP as SGMA provides GSAs with the legal authority to impose regulations on groundwater management, including, but not limited to, required metered and reporting, implementation of conservation practices, groundwater extraction allocations (Todd Groundwater and Woodard & Curran 2022a). While the proposed project would marginally increase groundwater use, the proposed project would be required to follow the guidelines of the GSP as implemented by the GSA.

Overall, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☐	■

a. *Would the project physically divide an established community?*

The proposed project would not involve the demolition of an existing structure. The project would not separate connected neighborhoods or land uses from each other. No new roads, linear infrastructure, or other development features are proposed that would divide an established community or limit movement, travel, or social interaction between established land uses. No impact would occur.

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?

The project is located on an existing site of an agricultural processing facility. The site's expansion would be comprised of storage and warehousing facilities, offices, a parking lot, and other agricultural accessory structures that support agricultural production. The site is designated as Agriculture by the Merced County General Plan. The Merced General Plan Agriculture Land Use designation supports the importance of agriculture to the region and promotes agricultural processing and support operations (County of Merced, 2011). The proposed project would not introduce a new use that would conflict with the Merced County General Plan, the Merced County Zoning Ordinance, or state plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. There would be no impact to an established community or inconsistency with applicable land use regulation. Therefore, the project would have no impact.

NO IMPACT

This page intentionally left blank.

12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☐	■

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?

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

The project site is not located on a Mineral Resource Zone (California Geological Survey 2021). The county's primary mineral resources are sand and gravel mining operations, especially along the San Joaquin River and its tributaries. The project site does not fall within a Mineral Resource Zone (County of Merced 2012). Therefore, no mineral resources would be altered or displaced by the project. There would be no impact.

NO IMPACT

This page intentionally left blank.

13 Noise

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

Setting

According to the Merced County General Plan's Health and Safety Element, the most prevalent noise sources in the County are from traffic on Interstate 5; State Routes 33, 59, 99, 140, and 152; local roads; railroad operations; aircraft operations; commercial uses; active recreation areas; and outdoor play areas (County of Merced 2013). The project site is an agricultural processing plant; the surrounding land uses are predominantly agricultural. There are two local roads, but none of the other prevalent noise sources mentioned above.

Overview of Noise and Vibration

Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013).

Human Perception of Sound

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; dividing the energy in half would result in a 3 dB decrease (Caltrans 2013).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not "sound twice as loud" as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible (8 times the sound energy); and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (10.5 times the sound energy) (Caltrans 2013).

SOUND PROPAGATION AND SHIELDING

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in the noise level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line), the path the sound will travel, site conditions, and obstructions.

Sound levels are described as either a "sound power level" or a "sound pressure level," which are two distinct characteristics of sound. Both share the same unit of measurement, the dB. However, sound power (expressed as Lpw) is the energy converted into sound by the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers, such as an eardrum or microphone, which is the sound pressure level. Sound measurement instruments only measure sound pressure, and noise level limits are typically expressed as sound pressure levels.

Noise levels from a point source (e.g., construction, industrial machinery, air conditioning units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, and man-made features, such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (Federal Highway Administration [FHWA] 2011). Structures can substantially reduce exposure to noise as well. The FHWA's guidance indicates that modern building construction generally provides an exterior-to-interior noise level reduction of 10 dBA with open windows and an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows (FHWA 2011).

Groundborne Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent buildings or structures and vibration energy may propagate through the buildings or structures. Vibration may be felt, may manifest as an audible low-frequency rumbling noise (referred to as groundborne noise), and may cause windows, items on shelves, and pictures on walls to rattle. Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The

primary concern from vibration is that it can be intrusive and annoying to building occupants at vibration-sensitive land uses and may cause structural damage.

Typically, groundborne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared (RMS) vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used as it corresponds to the stresses that are experienced by buildings (Caltrans 2020).

High levels of groundborne vibration may cause damage to nearby building or structures; at lower levels, groundborne vibration may cause minor cosmetic (i.e., non-structural damage) such as cracks. These vibration levels are nearly exclusively associated with high impact activities such as blasting, pile-driving, vibratory compaction, demolition, drilling, or excavation. The American Association of State Highway and Transportation Officials (AASHTO) has determined vibration levels with potential to damage nearby buildings and structures; these levels are identified in Table 14.

Table 14 AASHTO Maximum Vibration Levels for Preventing Damage

Type of Situation	Limiting Velocity (in/sec)
Historic sites or other critical locations	0.1
Residential buildings, plastered walls	0.2–0.3
Residential buildings in good repair with gypsum board walls	0.4–0.5
Engineered structures, without plaster	1.0–1.5

Source: Caltrans 2020.

Numerous studies have been conducted to characterize the human response to vibration. The vibration annoyance potential criteria recommended for use by Caltrans, which are based on the general human response to different levels of groundborne vibration velocity levels, are described in Table 15.

Table 15 Vibration Annoyance Potential Criteria

	Vibration Level (in/sec PPV)	
Human Response	Transient Sources	Continuous/Frequent Intermittent Sources[1]
Severe	2.0	0.4
Strongly perceptible	0.9	0.10
Distinctly perceptible	0.25	0.04
Barely perceptible	0.04	0.01

in/sec = inches per second; PPV = peak particle velocity

Source: Caltrans 2020.

[1] Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Regulatory Framework

FTA Transit and Noise Vibration Impact Assessment Manual

The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction in their *Transit and Noise Vibration Impact Assessment Manual*

(FTA 2018). For residential, commercial, and industrial uses, the daytime noise threshold is 80 dBA L_{eq}, 85 dBA L_{eq}, and 90 dBA L_{eq} for an 8-hour period, respectively.

Merced County General Plan

The County of Merced Noise Element contains goals and policies that are designed to include noise control in the planning process in order to maintain compatible land uses with acceptable environmental noise levels and protect Merced County residents from excessive noise. The Noise Element establishes the following goals and policies that would apply to the proposed project:

Policy HS-7.5: Noise Generating Activities

> **Objective N 1.1:** Limit noise generating activities, such as construction, to hours of normal business operation.

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

Construction activity would generate temporary noise in the project site vicinity, exposing surrounding sensitive receivers to increased noise levels. Project construction noise would be generated by heavy-duty diesel construction equipment used for demolition, site preparation, grading, building construction, and paving activities. Each phase of construction has a specific equipment mix and associated noise characteristics, depending on the equipment used during that phase. Construction noise would typically be higher during the more equipment-intensive phases of initial construction (i.e., demolition, site preparation, and grading work) and would be lower during the later construction phases (i.e., building construction and paving). Construction noise was estimated using reference noise levels and equipment use factors from the FHWA Roadway Construction Noise Model (RCNM; 2006).

The closest sensitive receivers to project construction would be residences approximately 900 feet west and northwest of the project site. At this distance, construction noise levels would be approximately 55 dBA L_{eq} at the nearest sensitive receivers, which would not exceed the FTA's daytime construction noise threshold of 80 dBA L_{eq}. Construction noise levels at other nearby sensitive receivers would be less than the noise levels at the nearest sensitive receiver due to distance attenuation. Therefore, construction noise impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Construction

Project construction may involve activities typically associated with excessive groundborne vibration such as pile driving or blasting, rollers, loaded trucks, and bulldozers. The greatest vibratory source during construction would be a vibratory roller. Reference estimates for vibratory roller vibration are 0.210 inches per second peak particle velocity at 25 feet (FTA 2018).

At the nearest vibration-sensitive receivers at a distance of 900 feet, a vibratory roller would generate vibartion levels of 0.004, which would be well below the barely perceptible limit of 0.04 as stated by Caltrans (Table 15). Therefore, construction vibration impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The airport closest to the project site is the Merced Regional Airport, which is located approximately 10 miles southeast of the project site. The project site is not located within noise contours shown in Merced County Airport Land Use Compatibility Plan (Merced County 2012). In addition, the project site is not near a private airstrip. Therefore, the project would not expose people working in the project area to excessive noise levels from airport noise. No impact would occur.

NO IMPACT

This page intentionally left blank.

14 Population and Housing

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

According to the California Department of Finance (DOF 2022), the County of Merced has an estimated population of 281,202 with 87,783 housing units in 2021. The average number of persons per household is estimated at 3.29. The Merced County Association of Governments (MCAG) provides projections for population in Merced County through the year 2050. MCAG projects the population of Merced to be 134,700 by 2050.

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

The project would not involve the construction of new dwelling units and, therefore, would not directly induce population growth in the unincorporated area north of the Delhi community planning area. The project would not create jobs that could indirectly cause population growth through employee relocations to the project area, as the intent of the project is to increase storage capacity to improve efficiency. There would be no additional employees necessary for production, as current operations would not change with proposed expansions. No change in current operations would not induce substantial population growth to the area.

The project would not involve the extension of roads or other infrastructure since it would be constructed within City limits and connected to existing infrastructure systems in the area. There would be no impact.

NO IMPACT

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

There are no existing housing units or temporary housing accommodations on the project site. Therefore, the project would not displace existing housing units or people. No impact would occur.

NO IMPACT

This page intentionally left blank.

15 Public Services

		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, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	1 Fire protection?	☐	☐	☐	■
	2 Police protection?	☐	☐	☐	■
	3 Schools?	☐	☐	☐	■
	4 Parks?	☐	☐	☐	■
	5 Other public facilities?	☐	☐	☐	■

Fire protection for the project site is provided by the Merced County Fire Department (MCFD). The MCFD is administered, and suppression personnel are provided through a contract with the California Department of Forestry and Fire Protection (CAL FIRE) while support personnel are Merced County employees (County of Merced 2022). MCFD is comprised of twenty fire stations and a fleet of approximately 80 vehicles. Fire stations are staffed 24 hours a day by a full-time career Fire Captain or Fire Apparatus Engineer. Emergency response is caried out by an approximate 300 volunteer firefighters. The nearest fire stations to the project site are the Delhi Station 91 located at 16056 Acacia Street, approximately 2.5 miles southwest of the southwestern boundary of the project site, and the Ballico Station 92 located at 11284 Ballico Avenue, approximately 2.8 miles southeast of the southern boundary of the project site. Police protection for the project site is provided by the Merced County Sheriff's Department (MCSD) (County of Merced 2012). The nearest MCSD station is located approximately 2.8 miles southwest of the project site in the city of Delhi. The project site's surrounding communities of Delhi and Ballico are served by the Delhi Unified School District and the Ballico Cressey School District, respectively. The Merced County Library System services the project site, and the nearest library is the McCandless Delhi Library, located approximately 3.0 miles southwest of the project site in the City of Delhi. There are numerous park and recreation opportunities within the cities of Delhi and Turlock which serve the project site. Parks and recreation are discussed in more detail in Section 16, *Recreation*.

a.1-5 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

As discussed in Section 14, *Population and Housing*, construction and operation of the proposed project would not result in direct or indirect population growth. The project would be required to comply with Public Resources Code Section 4291, the California Building Code, and other regulations which set forth standards for fire protection in buildings. As such, an increase in demand for fire services is not expected to result from the proposed project.

The proposed project would not result in the need for new or altered facilities for police protection, schools, libraries, or parks. The number of employees would not increase as a result of the proposed project; thus, no increase in population would take place that would necessitate the construction of new or physically altered facilities. No feature of the proposed project would pose unusual police protection demands. Therefore, there would be no increase in the demand for public services such as police facilities, schools, libraries, or parks.

Overall, the proposed project would not result the need for new or physically altered facilities, the result of which could cause significant environmental impacts. No impact to public services would occur.

NO IMPACT

16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	■
a. 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?	☐	☐	☐	■

Merced County contains several federal, State, and county parks and recreation areas, in addition city parks and public open spaces. There are three National Wildlife Refuges, 13 California State Parks and Recreational facilities, and 21 county-operated parks within Merced County (Merced County 2013). The closest parks and recreational areas to the project site are Taylor Park and the McConnell State Recreation Area, approximately 2.5 miles southwest and 3.8 miles southeast, respectively.

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?

As discussed in Section 14, *Population and Housing*, the proposed project would not directly or indirectly result in population growth. As such, the proposed project would not create unanticipated demand on parks or cause substantial deterioration of existing parks such that new parks would be needed. Additionally proposed project activities would not preclude the ability of residents to access recreational opportunities within the region thereby necessitating the construction or expansion of recreational facilities. Therefore, the proposed project would have no impact on recreation.

NO IMPACT

This page intentionally left blank.

17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
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 use (e.g., farm equipment)?	☐	☐	■	☐
d. Result in inadequate emergency access?	☐	☐	■	☐

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

The only regionally-adopted land use plans, policies, and regulations that would apply to the proposed project include the County of Merced General Plan Circulation Element and the MCAG RTP/SCS, as there are no active transportation or transit facilities in the vicinity of the proposed project. The County of Merced General Plan is a long-range planning document that was developed to guide the growth and development of Merced County. Specifically, the Circulation Element provides the policy context for the County to achieve its vision for the safe and efficient circulation of people, vehicles, and goods throughout the County (County of Merced 2012). The Transportation Section contains a variety of goals and policies related to maintaining an efficient roadway system. Similarly, the 2018 MCAG RTP/SCS is a long-range planning document that is intended to address regional goals and priorities for the growing communities within Merced County. The 2018 MCAG RTP/SCS also includes a goal related to providing a safe and efficient regional road system that accommodates the demand for movement of people and goods (MCAG 2018).

The proposed project would not result in the alteration or closure of existing roadways during project construction or operation, nor would it result in the construction of new roadways in the vicinity of the project site. Although construction of the project would generate additional traffic for deliveries of equipment and materials to the project site as well as construction worker and vendor traffic, traffic generated during project construction is not anticipated to affect the performance of the circulation system. During operation, the proposed expansion would allow for increased on-site storage of the processed nut product, which would reduce the number of daily truck trips necessary to transfer products for off-site storage. The reduction in daily truck trips would increase the overall efficiency of truck traffic on roadways in the vicinity of the project site. Therefore, the proposed

project would be consistent with both the County of Merced General Plan Transportation Element and the 2018 MCAG RTP/SCS. As such, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, or pedestrian facilities. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

CEQA Guidelines Section 15064.3(b) identifies the appropriate criteria for evaluating transportation impacts. According to the guidelines, land use projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

Depending on the time of year, the Select Harvest USA nut processing plant currently employs up to 100 personnel. The facility typically sees up to four visitors per month, including contractors. The facility accepts daily pre-processed nut deliveries and sends out post-processed nut deliveries; up to 15 truck trips are currently estimated to and from the processing facility per day. The proposed project would temporarily increase vehicular traffic during construction due to the delivery of materials. Specifically, construction of the project would result in an estimated 18 worker trips per day during site preparation, 28 worker trips per day during grading, 107 worker trips per day and 42 vendor trips per day during building construction, 23 worker trips per day during paving, and 21 worker trips per day during architectural coating (estimated trip numbers are based upon CalEEMod default construction inputs; refer to See Appendix A for full calculations). Furthermore, contractor visits to the facility could increase during the construction period up to approximately seven visits per month. After construction of the expansion project is complete, the number of individuals employed at the facility would not increase, and the number of monthly contractor visitors would revert to approximately four. The proposed expansion would also allow for increased on-site storage of the processed nut product, which would reduce the number of daily truck trips necessary to transfer products for off-site storage.

As operation of the proposed project is expected to reduce the number of vehicle trips per day due to the reduction in necessary truck trips and not expand operations or employees, it can be assumed that the proposed project would decrease vehicle miles traveled in the project area compared to existing conditions. Because this project would generate fewer than 110 trips per day, it can be assumed that this project would have a less-than significant VMT transportation impact (OPR 2018). Therefore, the project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3 (b). Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Direct access to the project site is provided by four ingress and egress points located on West Harding Road, north of the parcel, separated into two automobile and two truck access points. The proposed project would not add or remove existing access points to the project site, nor would the project alter the existing street network in its vicinity. To construct the proposed facility expansion, heavy construction equipment, machinery, delivery trucks, and worker vehicles would be utilized, which could temporarily delay traffic on roadways in the vicinity of the project. It is anticipated that

such construction equipment, trucks, and vehicles would utilize SR-99, East Avenue, North Vincent Road, and West Harding Road to access the project site, and those roadways would be most impacted by temporary delays in traffic and potentially hazardous roadway conditions while construction equipment and machinery is brought onto the project site. However, traffic generated during project construction is not anticipated to affect the performance of the circulation system. A temporary staging area would be located within the existing facility's property boundary to store all construction equipment. The staging area would be clearly defined and designated and would not be located in the public right-of-way. Therefore, the proposed project would not substantially increase hazards due to a geometric design feature.

The project site, which has been in use as an agricultural processing facility for many years, is currently developed with warehouses, a nut orchard, and additional buildings to support the business operation. The project site is surrounded by existing nut orchards on all sides. The proposed project would involve the expansion of the existing site to provide additional storage and warehousing as part of a continuing effort to keep up with the global demand for nut products grown and harvested in Merced County. As described above, the project would allow for increased on-site storage of the processed nut product, which would reduce the number of truck trips necessary to transfer products for off-site storage, ultimately resulting in improved truck flow and increased safety. Furthermore, the project site is currently zoned as A-1, General Agricultural, which is intended to provide for areas for intensive farming operations, consistent with the existing and proposed uses. Therefore, the proposed project would not substantially increase hazards due to an incompatible use. Overall, this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in inadequate emergency access?

The proposed project would not result in the construction of new roadways, modifications to existing roadways or modifications to existing street parking. The project would maintain the existing ingress and egress points located on West Harding Road, north of the parcel. Staging equipment and temporary work areas utilized during construction of the proposed project would be located within the project site and would not be located in the public right-of-way, nor would the project require closure of existing roadways in the vicinity of the proposed project. As a result, the proposed project would not result in inadequate emergency access. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

This page intentionally left blank.

18 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 a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. 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)?	☐	■	☐	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	■	☐	☐

California Assembly Bill 52 of 2014 (AB 52) expanded CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

1. 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

2. 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 these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

Merced County has not received any notification requests from Native American tribes traditionally and culturally associated with the geographic area of the project site. Pursuant to Public Resources 21080.3.1, AB 52, and Merced Country policy, no notification letters were sent. As no Native American tribes have requested to be notified by Merced County of projects, AB 52 consultation was not conducted.

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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)?

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is 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?

As of the date of this draft, AB 52 consultation is completed as no Native American tribes, traditionally or culturally affiliated with Merced County, have requested project notifications per AB 52. The cultural resources review did not identify any cultural resources listed on or eligible for listing on the CRHR or a local register within the project site. However, there is always potential to uncover buried archaeological and tribal cultural resources during ground disturbing activities, which could potentially be considered tribal cultural resources eligible for listing in the CRHR or a local register or be considered tribal cultural resources. Should project construction activities encounter and damage or destroy a tribal cultural resource or resources, impacts would be potentially significant. Mitigation Measure TCR-1 would ensure that tribal cultural resources are preserved in the event they are uncovered during construction and would reduce impacts regarding disrupting tribal cultural resources to a less than significant level.

Mitigation Measure

TCR-1 Inadvertent Discoveries During Construction

In the event that cultural resources of Native American origin are identified during ground-disturbing activities, all earth disturbing work within 50 feet of the find shall be temporarily suspended or redirected until a qualified archaeologist has evaluated the nature and significance of the find; an appropriate Native American representative, based on the nature of the find, is consulted; and mitigation measures are put in place for the disposition and protection of any find pursuant to Public Resources Code Section 21083.2. If the County, in consultation with local Native

Americans, determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with local Native American group(s) prior to continuation of any earth disturbing work within the vicinity of the find. The plan shall include avoidance of the resource or, if avoidance of the resource is infeasible, shall outline the appropriate treatment of the resource in coordination with the appropriate local Native American tribal representative and, if applicable, a qualified archaeologist. Examples of appropriate mitigation for tribal cultural resources include, but are not limited to, protecting the cultural character and integrity of the resource, protecting traditional use of the resource, protecting the confidentiality of the resource, or heritage recovery.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

This page intentionally left blank.

19 Utilities and Service Systems

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

Groundwater is currently provided by two existing on-site wells. An east-west trending irrigation ditch operated by the Turlock Irrigation District is located along the southern and western borders of the project site. The irrigation ditch connects to two separate north-south trending ditches located approximately 1.6 miles east and 1.9 miles west of the project site, respectively. Wastewater is treated through one existing septic system on the northwest boundary of the project site, near the intersection of West Harding Road and Sycamore Street. Gas and electricity are provided by the Pacific Gas and Electric Company (PG&E) (PG&E 2014). Telecommunication services are provided by the American Telephone and Telegraph Company (AT&T). Solid waste is handled by Winton Disposal and disposed of at one of two landfills in Merced County: the Billy Wright or the Highway 59 Disposal Site.

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

Private water wells provide water to the project, with the proposed addition of one well that would be used for providing water for on-site fire tanks and orchards. The additional supply would consist of a 30,000-gallon tank to accommodate the fire sprinklers requirement for the site. As discussed in Section 10, *Hydrology and Water Quality* the well would pump water to fill and replenish the 30,000-gallon tank that would be used only for fire prevention purposes. The refilling of this tank would occur infrequently and intermittently, and as such would not substantially increase water usage on-site. Operation of the proposed project would not change, and as a result, no additional water would be required for hulling activities, orchards, or employees. Thus, the proposed project would not require a new or expanded water treatment facility.

The project site is served by on-site septic systems. The proposed project plans to construct six new septic systems on the project site. As discussed in Section 7, *Geology and Soils*, the installation or modification of on-site septic systems would require compliance with Merced County Unified Development Ordinance Chapter 18.40, *Performance Standards*, which requires compliance with the CCR Title 23, Chapter Three, and the California Water Code, Division Seven (County of Merced 2019). These standards require that a septic system is sized and designed with respect to on-site soil capabilities that would ensure the safe treatment and disposal of wastewater and the maintenance of groundwater quality. Further, pursuant to Merced County Ordinance No. 1947, a permit must be obtained from the Merced County Division of Environmental Health prior to commencing construction, repair, or abandonment or destruction of any onsite wastewater treatment system (County of Merced 2016). The construction of a septic system expansion including six additional septic sites would adequately serve the project site's needs for wastewater. The additional proposed septic systems would be constructed in compliance with applicable County health standards that would reduce environmental impacts associated with the installation and operation of these septic systems, as to reserve undisturbed soils so that standard replacement of leach line can be installed in the areas when an existing one fails, as a safety net. As such, the proposed project would not require or result in the relocation or construction of a new or expanded wastewater treatment system such that significant environmental effects would occur.

Stormwater runoff from impervious surfaces and roofed areas would be routed to the existing storm water basins located at the southeast and southwest corners of the developed portion of the project site, and with proposed expansion of the storm basin located in the southeast portion of the project site. Increased impervious surfaces resulting from the construction of the parking lot would be directed towards both the existing on-site storm water basins. Therefore, no adverse effects to storm drainage are expected, and no needs for, or modifications to storm drainage systems on the project site are necessary beyond the proposed expansion of the one stormwater basin.

Gas and electricity are currently provided by the PG&E. Telecommunication services are provided by the American Telephone and Telegraph Company (AT&T). The proposed project would not require the addition of new gas, electrical, or communication infrastructure beyond what is currently in place.

LESS THAN SIGNIFICANT IMPACT

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?

As discussed in Section 10, *Hydrology and Water Quality*, the proposed project would marginally and intermittently increase water use beyond existing conditions in order to fill and replenish the 30,000-gallon storage tank for fire protection purposes. There would be no change in operations beyond existing conditions that would require the need for increased water to meet operational needs. As such, the proposed project would have sufficient water supplies available to serve the proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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?

The proposed project would utilize on-site septic systems for wastewater treatment. No public wastewater collection or treatment systems are provided to the project site. The proposed project would not utilize any public wastewater treatment system such that it would have to obtain determination by a wastewater treatment provider which serves to prove the provider has adequate capacity to serve the proposed project's demand. Therefore, no impact would occur.

NO IMPACT

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

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

The proposed project involves the expansion of storage and warehousing structures at an existing almond processing plant. Project construction activities would generate construction waste, resulting in the need for solid waste disposal. Pursuant to Assembly Bill 939 recoverable materials generated during construction would be separated and recycled to minimize construction and waste exportation from the site, resulting in limited demand on the landfills within the County. The Billy Wright and Highway 59 disposal sites have remaining capacities of 11,370,000 tons and 28,025,334 tons, respectively (CalRecycle 2019a, 2019b). Thus, the existing capacities would accommodate the project site.

Operations of the existing almond processing plant would not change, and therefore no excess solid waste generation beyond existing conditions is expected. There would be no change to existing conditions that would result in non-compliance with federal, State, or local management and reduction statutes and regulations related to solid waste. Therefore, this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

This page intentionally left blank.

20 Wildfire

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

The project site is not in a designated very high fire hazard severity zone and is located approximately 40 miles southeast of the nearest very high fire hazard severity zone, and about 30 miles east of the nearest moderate hazard severity zone (CAL FIRE 2022). The project site is located within an agricultural area with sparse low-density residential development in surrounding areas. These agricultural areas are mostly level and is not confronted with a high wildfire risk, due to the topography and vegetation type in this area, as opposed to topography with steep slopes that increase wildfire risk (MJHMP 2021).

Impact Analysis

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

The project is not located in an area or lands classified as very high fire hazard severity zone. The project is not within a designated CAL FIRE community at increased risk from wildfires. As described in Section 9, *Hazards and Hazardous Materials*, project construction and operation would not restrict implementation of the plan. No roads would be permanently closed because of the proposed project, and no structures would be developed that could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. As such, project implementation would not interfere with existing emergency evacuation plans or emergency response plans in the area. Therefore, no impact would occur.

NO IMPACT

b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The project site is on level terrain in agricultural land uses. Surrounding areas are also level and are mostly agricultural fields, with sparce populations. Most of Merced County is ranked to have fuel loading as low by CAL FIRE. Fuels are mainly crops and grasses. No steep slopes or other fire hazard elements are in the surrounding area and would not exacerbate the risk to fire. The project site is nearly 40 miles away from a very high fire hazard severity zone. The project is not within a high or very high fire hazard severity area, or a State Responsibility Area. Therefore, no impact would occur.

NO IMPACT

c. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The project is not near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, there would be no impact.

NO IMPACT

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

The project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones, or in an area with slopes or any elevation change. As discussed in Section 10, *Hydrology and Water Quality,* although the proposed project would introduce impervious surfaces to the site, it would not increase the volume of stormwater runoff from the site that could create downstream flooding or landslides, and there are no slopes to be affected. Implementation of design BMPs in the final design phase of the project, would ensure minimal erosion, siltation, flooding, and polluted runoff occur from development of the site. Therefore, there would be no impact.

NO IMPACT

This page intentionally left blank.

21 Mandatory Findings of Significance

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

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?

As discussed in Section 4, *Biological Resources*, the orchard on the east side of the project site could be used by migratory birds as a nesting habitat. However, existing conditions (developed and disturbed by agricultural use) and the lack of native vegetation communities or suitable ecological conditions on the site preclude the potential for special status plants to occur within the site and therefore, no special status plant species are expected. Given that construction activities are limited to previously disturbed, developed, and landscaped areas with ruderal and ornamental vegetation, impacts to special status plant species would not occur. Mitigation Measure BIO-1 would reduce the

potential to substantially reduce habitats, special species populations, and the range of rare or endangered plant species. With these mitigation measures in place, the project would not substantially degrade the environment or wildlife within the project area.

Regarding major periods of California history or prehistory, the project site has also been highly disturbed by agricultural activity, such as the current orchard, strawberry fields, and melon fields. Based on the findings discussed in Section 5, *Cultural Resources*, the cultural resources study prepared for the project did not conclude the project site as archaeologically sensitive. However, this may change due to the possibility of the unanticipated discovery of archaeological resources during ground disturbing activities. Therefore, project construction activities could potentially impact major periods of California history or prehistory. However, implementation of Mitigation Measures CUL-1 would reduce these potential impacts to a less than significant level. Although no cultural resources were identified on the listing on the CRHR, there is potential for tribal cultural resources to be discovered during construction. Mitigation Measure TCR-1 would ensure that tribal cultural resources are preserved in the event that they are uncovered during construction and would thereby reduce the disruption of tribal cultural resources.

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)?

The project is an expansion of an existing facility and there are no known past projects or anticipated new projects in Merced County in proximity to this project that could incrementally lead to a cumulative effect when combined with this project. In addition, all potentially significant project impacts have been reduced to a less than significant level with mitigation; therefore, the proposed project does not have the potential to result in cumulatively considerable impacts.

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?

In summary, given the preceding analysis, conditions of approval applied to the project and identified mitigation measures, it may be concluded that the proposed development project would not have environmental impacts which will cause substantial adverse effects on human beings, either directly or indirectly. As discussed in Section 3, *Air Quality*, human exposure to toxic air contaminants would be mitigated to less than significant, following compliance with CARB AIR Toxics Control Measures and USEPA standards for construction related emissions. Other environmental effects would be temporary, such as noise from construction activity, and would not have substantial adverse effects, as the closest sensitive receivers would be 900 feet west, and at this distance, would not exceed the Federal Transit Administration's daytime noise threshold. Other impacts related to hazards would also be minimized to less than significant after mitigation measures and BMPs are applied to construction and operational activities. Generally, environmental effects would not cause substantial adverse effects on human beings with mitigation incorporated, and compliance with BMPs, and County approval processes.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

References

Agriculture and Forestry Resources

California Department of Conservation (DOC, 2018). 2018. Division of Land Resource Protection: Important Farmland Finder. https://www.conservation.ca.gov/dlrp/fmmp/Pages/Merced.aspx (accessed May 2022).

Conservation Biology Institute. (CBI, 2022). Merced County, Williamson Act 2010. https://databasin.org/maps/new/#datasets=03269d568b334cf09b1381b4dd808229. (accessed May 2022).

Merced, County of. Adopted July 25, 2000. (COM, 2000). Rules of Procedure to Implement the California Land Conservation Act of 1965. https://www.co.merced.ca.us/DocumentCenter/View/3035/Rules-and-Procedures?bidId=. (accessed May 2022).

Aesthetics

Merced, County of. (County of Merced 2012). 2030 Merced County General Plan. https://www.countyofmerced.com/1926/Draft-General-Plan-Draft-Program-EIR (accessed July 2022).

Air Quality

California Air Pollution Control Officers Association (CAPCOA). 2021. California Emissions Estimator Model User's Guide, Appendix A: Calculation Details for CalEEMod. May 2021. http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/01_user-39-s-guide2020-4-0.pdf?sfvrsn=6 (accessed July 2022).

California Air Resource Board (CARB). 2020. Maps of State and Federal Area Designation. https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations (accessed July 2022).

____.2022a. Top 4 Summary: Select Pollutant, Years, & Area. https://www.arb.ca.gov/adam/topfour/topfour1.php (accessed July 2022).

____.2022b *AQMIS* Air Quality Data (PST) Query Tool. Available: https://www.arb.ca.gov/aqmis2/aqdselect.php?tab=specialrpt (accessed July 2022).

Office of Environmental Health Hazard Assessment (OEHHA). 2015. Guidance Manual for Preparation of Health Risk Assessments. https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf (accessed July 2022).

_____.2019. Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values. Last updated: October 2, 2020. https://ww3.arb.ca.gov/toxics/healthval/contable.pdf (accessed July 2022)

South Coast Air Quality Management District (SCAQMD). 2017. RISK ASSESSMENT PROCEDURES for Rules 1401, 1401.1 and 212. http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12 (accessed July 2022).

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015a. *Guidance for Assessing and Mitigating Air Quality Impacts*. March 2015. http://valleyair.org/transportation/GAMAQI.pdf (accessed July 2022).

_____.2015b. Air Quality Thresholds of Significance – Criteria Pollutants. March 2015. http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf (accessed July 2022).

_____. 2016. 2016 Ozone Plan for 2008 8-Hour Ozone Standard. July 2016. http://valleyair.org/Air_Quality_Plans/Ozone-Plan-2016/Adopted-Plan.pdf (accessed July 2022).

_____.2018a. Ambient Air Quality Standards & Valley Attainment Status. www.valleyair.org/aqinfo/attainment.htm (accessed July 2022).

_____.2018b. Project Ambient Air Quality Analysis Applicability Determination under CEQA. June 2018. http://www.valleyair.org/policies_per/Policies/APR-2030.pdf (accessed March 2022).

_____.2021. Attainment Plan Revisions for 1997 Annual PM2.5 Standard. August 2021. https://ww2.valleyair.org/media/spjlsext/attainment-plan-revision.pdf (accessed July 2022).

United States Environmental Protection Agency (USEPA). 2021a. "Criteria Air Pollutants." Last modified: May 5, 2021. https://www.epa.gov/criteria-air-pollutants (accessed May 2022).

_____.2022. Nonattainment Areas for Criteria Pollutants (Green Book). https://www.epa.gov/green-book (accessed July 2022).

Biological Resources

California Department of Fish and Wildlife (CDFW). 2022a. California Natural Diversity Database, Rarefind 5. https://wildlife.ca.gov/data/cnddb/maps-and-data (Accessed June 2022).

_____.2022b. Biogeographic Information and Observation System (BIOS). http://bios.dfg.ca.gov. (Accessed June 2022).

_____. 2020c. California Natural Diversity Database (CNDDB). April 2022. Special Animals List. California Department of Fish and Wildlife. Sacramento, CA.

_____. 2022d. California Natural Diversity Database (CNDDB). April 2022. Special Vascular Plants, Bryophytes, and Lichens List. California Department of Fish and Wildlife. Sacramento, CA.

California Native Plant Society. 2022. Inventory of Rare and Endangered Plants. v9-01 1.5. http://www.rareplants.cnps.org/. (accessed June 2022).

U.S. Department of Agriculture (USDA), Natural Resources Conservation Service. 2021. Web Soil Survey. Soil Survey Area: Merced County, California. Soil Survey Data: Version 16, Sep 8, 2021. Available at: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. (accessed June 2022).

U.S. Fish and Wildlife Service (USFWS). 2022a. Information for Planning and Consultation (IPaC). Available at: https://ecos.fws.gov/ipac/. (accessed June 2022).

_____. 2022b Critical Habitat Portal. Available at: http://criticalhabitat.fws.gov. (accessed June 2022).

_____. 2022c. National Wetlands Inventory (NWI) Wetlands mapper. Available at: https://www.fws.gov/wetlands/data/mapper.html (accessed June 2022).

U.S. Geological Survey (USGS). 2021. National Hydrography Dataset. The National Map. https://viewer.nationalmap.gov/advanced-viewer/.(accessed June 2022).

Energy

California Energy Commission (CEC). 2022. California Retail Fuel Outlet Annual Reporting (CEC-A15) Results. https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting (accessed April 2022).

_____. Nonresidential Compliance Manual. January 2019. https://www.energy.ca.gov/sites/default/files/2021-06/CEC-400-2018-018-CMF.pdf (accessed May 2022).

United States Energy Information Administration (USEIA). 2022. California State Profile and Energy Estimates. https://www.eia.gov/state/?sid=CA (accessed April 2022).

Greenhouse Gas Emissions

Association of Environmental Professionals (AEP). 2018. https://www.califaep.org/docs/AEP_2018_White_Paper_Cap_Best_Practices.pdf (accessed June 2022).

California Natural Resource Agency. 2019. California's Fourth Climate Change Assessment Statewide Summary Report. September 2018. https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf (accessed June 2022).

California Air Resources Board (CARB). 2017. California's 2017 Climate Change Scoping Plan. December 14, 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf (accessed June 2022).

Intergovernmental Panel on Climate Change (IPCC). 2021. Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)] Cambridge University Press. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf (accessed June 2022).

Merced County. 2013. 2030 Merced County General Plan. https://www.countyofmerced.com/DocumentCenter/View/6766/2030-General-Plan?bidId= (accessed June 2022).

Merced County Association of Governments. 2018. https://www.mcagov.org/DocumentCenter/View/1731/MCAG-2018-RTP-finaldraft-2018-08-06?bidId= (accessed June 2022).

United States Environmental Protection Agency (U.S. EPA). 2021a. "Climate Change Indicators: Atmospheric Concentrations of Greenhouse Gases." Last modified: July 21, 2021. epa.gov/climate-indicators/climate-change-indicators-atmospheric-concentrations-greenhouse-gases (accessed June 2022).

Geology and Soils

California Geological Survey (CGS). 2002. Note 36 California Geomorphic Provinces. https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf (accessed April 2022).

_____. 2016. Earthquake Zones of Required Investigation. https://maps.conservation.ca.gov/cgs/EQZApp/ (accessed April 2022).

Merced, County of. 2013. Merced County General Plan Background Report. December 2013. https://www.countyofmerced.com/DocumentCenter/View/6768/GP-Background-Report?bidId= (accessed April 2022).

State Water Resources Control Board [SWRCB]. 2012. National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharge Associated with Construction and Land Disturbance Activities. July 17, 2012. https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2012/wqo2012_0006_dwq.pdf (accessed April 2022).

United States Department of Agriculture [USDA]. 2022. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/app/WebSoilSurvey.aspx (accessed April 2022).

United States Geological Survey (USGS). 2022. U.S. Quaternary Faults. https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf (accessed April 2022).

University of California Museum of Paleontology (UCMP). 2022. NEOMAP. https://berkeleymapper.berkeley.edu/?ViewResults=tab&tabfile=http://miomap.berkeley.edu/all_miomap.xls&configfile=http://miomap.berkeley.edu/miomap.xml (accessed July 2022).

Hazards and Geology and Soils

California Department of Conservation Geologic Energy Management Division (CalGEM). 2022. "Well Finder." Last modified: 2019. https://www.conservation.ca.gov/calgem/Pages/WellFinder.aspx (accessed May 2022).

California Department of Industrial Relations. 2020. The Cal / OSHA Hazard Communication Regulation – a Guide for Employers That Use Hazardous Chemicals. https://www.dir.ca.gov/dosh/dosh_publications/hazcom.pdf (accessed September 2022).

California Department of Toxic Substances Control (DTSC). 2022. "EnviroStor." Last modified: 2022. http://www.envirostor.dtsc.ca.gov/public/ (accessed May 2022).

California Environmental Protection Agency (CalEPA). 2022. "Cortese List Data Resources." Last modified: 2022. https://calepa.ca.gov/sitecleanup/corteselist/ (accessed May 2022).

California State Water Resources Control Board (SWRCB). 2022a. "GeoTracker." Last modified: 2022. http://geotracker.waterboards.ca.gov/ (accessed May 2022).

____. 2022b. "California PFAS Investigations." Last modified: 2022. https://www.waterboards.ca.gov/pfas/ (accessed May 2022).

____. 2022c. "GeoTracker PFAS Map." Last modified: 2022. https://geotracker.waterboards.ca.gov/map/pfas_map (accessed May 2022).

____. 2021. “March 12, 2021 Bulk Fuel Terminal/Refinery Investigative Order.” March 12, 2021. https://www.waterboards.ca.gov/pfas/docs/order_wq2021-0006-dwq_pfas.pdf (accessed May 2022).

Environmental Risk Information Services (ERIS). 2022. Aerial Photographs. May 11, 2022.

Merced County. 2022. Merced County Department of Public Health, Division of Environmental Health. “CUPA and Hazardous Materials/Waste Information.” https://www.countyofmerced.com/1830/CUPA-Hazardous-Materials-Waste-Informati (accessed September 2022).

United States Department of Transportation (USDOT). 2022. Pipeline and Hazardous Materials Safety Administration (PHMSA), “National Pipeline Mapping System (NPMS) Public Map Viewer.” Last modified: 2022. https://www.npms.phmsa.dot.gov/PublicViewer/ (accessed May 2022).

Hydrology and Water Quality

California Department of Water Quality (DWR). 2022. SGMA Basin Prioritization Dashboard. https://gis.water.ca.gov/app/bp-dashboard/final/ (accessed July 2022

Central Valley Regional Water Quality Control Board (CVRWQCB). 2019. The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board, Central Valley Region. https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201902.pdf (accessed July 2022).

Federal Emergency Management Agency (FEMA). 2008. Flood Insurance Rate Map. December 2, 2008.https://msc.fema.gov/portal/search?AddressQuery=14827%20W%20Harding%20Rd%2C%20Turlock%2C%20CA%2095380#searchresultsanchor (accessed April 2022).

Merced, County of. 2014. Ordinance No. 1923. August 12, 2014. https://www.countyofmerced.com/DocumentCenter/View/5347/Merced-County-Stormwater-Ordinance-Chap-9-53-Rev-?bidId= (accessed July 2022).

Todd Groundwater and Woodard & Curran. 2022a. Turlock Subbasin Groundwater Sustainability Plan (GSP). January 2022. https://turlockgroundwater.org/gsp (accessed May 2022).

_____. 2022b. Annual Report WY 2021. https://www.dropbox.com/s/q0ei51qx64rhfrt/5-22.03_WY_2021.pdf?dl=0 (accessed July 2022).

Wilson Architecture. 2021. Site Plan. May 2021.

Land Use and Planning

County of Merced. 2011. 2030 Merced County General Plan. https://www.countyofmerced.com/1791/2030-Merced-County-General-Plan-Sections (accessed June 2022).

Mineral Resources

California Department of Conservation, California Geological Survey. 2021. Update of the Mineral Land Classification for Concrete Aggregate Resources of Merced County, California. (accessed June 2022).

County of Merced. 2012. 2030 Merced County General Plan Draft EIR. https://web2.co.merced.ca.us/pdfs/planning/generalplan/DraftGP/DEIR/10_geosoilsminerals_2012_11_23f.pdf (accessed June 2022).

Noise

California Department of Transportation (Caltrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. (CT-HWANP-RT-13-069.25.2) September. http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013B.pdf (accessed June 2022).

_____. 2020. Transportation and Construction Vibration Guidance Manual (CT-HWANP-RT-20-365.01.01). April. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf (accessed June 2022).

Federal Highway Administration (FHWA). 2011. Highway Traffic Noise: Analysis and Abatement Guidance. December 2011. https://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf (accessed June 2022).

Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf (accessed June 2022).

County of Merced. 2030 Merced General Plan. 2012. “Health and Safety Element”. https://web2.co.merced.ca.us/pdfs/planning/generalplan/DraftGP/MCGPU_2030/MCGPU_2030GP_Part_II-10_HEALTH_SAFETY_PRD_2012-11-30.pdf (accessed June 2022).

Population and Housing

California Department of Finance (DOF). 2020. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2020 with 2010 Census Benchmark. https://dof.ca.gov/forecasting/demographics/estimates/estimates-e5-2010-2021/. (accessed May 2022).

Public Services

Merced, County of. 2022. About the Department. https://www.co.merced.ca.us/349/About-the-Department (accessed April 2022).

_____. 2012. Merced County General Plan Draft PEIR. November 2012. https://web2.co.merced.ca.us/pdfs/planning/generalplan/DraftGP/DEIR/17_public_svcs_mcgpu_eir_2012_11_23f.pdf (accessed April 2022).

Recreation

Merced, County of. 2013. 2030 Merced County General Plan Background Report. December 2013. https://www.countyofmerced.com/DocumentCenter/View/6768/GP-Background-Report?bidId= (accessed April 2022).

Utilities and Service Systems

CalRecycle. 2019a. Billy Wright Disposal Site. https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2909?siteID=1864 (accessed April 2022).

_____. 2019b. Highway 59 Landfill. https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2908?siteID=1863 (accessed April 2022).

Pacific Gas and Electric Company (PG&E). 2014. Service Area Maps. https://www.pge.com/tariffs/assets/pdf/tariffbook/GAS_MAPS_Service_Area_Map.pdf (accessed July 2022).

Merced, County of. 2022. Landfills. https://www.mcrwma.org/27/Landfills (accessed April 2022).

_____. 2019. Unified Development Ordinance. https://www.co.merced.ca.us/DocumentCenter/View/21764/Article-3---Regulations-Applicable-to-All-Zones (accessed April 2022).

_____. 2016. Ordinance No. 1947. December 6, 2016. https://web2.co.merced.ca.us/pdfs/EnvironmentalHealth/OWTS-MCC-9-54-Ordinance.pdf (accessed June 2022).

State Water Resources Control Board (SWRCB). 2022. CA Drinking Water Watch. https://sdwis.waterboards.ca.gov/PDWW/JSP/WaterSystemDetail.jsp?tinwsys_is_number=14777&tinwsys_st_code=CA&wsnumber=CA2400339 (accessed April 2022).

Transportation

County of Merced. 2012. 2030 Merced County General Plan. https://www.countyofmerced.com/2018/Adopted-General-Plan (accessed May 2022).

Merced County Association of Governments (MCAG). 2018. Regional Transportation Plan Sustainable Communities Strategy for Merced County. https://www.mcagov.org/DocumentCenter/View/1731/MCAG-2018-RTP-finaldraft-2018-08-06?bidId= (accessed May 2022).

Office of Planning and Research (OPR). 2018. Technical Advisory On Evaluating Transportation Impacts in CEQA.

Tribal Cultural Resources

Nationwide Environmental Title Research, LLC (NETR Online). Various Historic Aerials and Topographic Maps. 2022. https://www.historicaerials.com/ (accessed May 2022).

United States Geological Survey (USGS). 2022. Historical Topographic Map Explorer. [online map database]. www.historicalmaps.arcgis.comm/usgs/ (accessed May 2022).

Wildfire

California Department of Forestry and Fire Protection (CAL FIRE, 2022). Merced County: Very High Fire Hazard Severity Zones in LRA As Recommended by CAL FIRE. [map]. https://osfm.fire.ca.gov/media/6717/fhszs_map24.pdf (accessed April 2022).

Merced, County of. 2021. Multi-Jurisdictional Hazard Mitigation Plan Update. (MJHMP, 2021). https://web2.co.merced.ca.us/pdfs/oes/MercedCounty-MJHMP-2021-2016.pdf. (accessed March 2022).

List of Preparers

Rincon Consultants, Inc. prepared this IS-MND under contract to the County of Merced. Persons involved in data gathering analysis, project management, and quality control are listed below.

RINCON CONSULTANTS, INC.

Matt Maddox, Principal-in-Charge
Megan Jones, QA/QC

Eric VonBerg, Project Manager
Matt Maddox, Principal
Brittany Cabeje, Environmental Planner
Taylor Freeman, Environmental Planner
Ethan Knox, Environmental Planner
Aaron Rojas, Environmental Planner
Dylan Stafforini, Environmental Planner
Elena Savignano, Environmental Intern
Samantha Kehr, Senior Biologist
Morgan Craig, Associate Biologist
Savanna Vrevich, Environmental Scientist
Heather Dubois, Senior Air Quality Specialist
Julie Lynne Welch, Director of Due Diligence
Courtney Montgomery, Archaeologist
Dario Campos, Formatting and Technical Editor

This page intentionally left blank.