



CEQA Referral Initial Study And Notice of Intent to Adopt a Negative Declaration

Date: July 22, 2022

To: Distribution List (See Attachment A)

From: Emily Basnight, Assistant Planner, Planning and Community Development

Subject: USE PERMIT APPLICATION NO. PLN2022-0003 – FM INGREDIENTS

Comment Period: July 22, 2022 – August 22, 2022

Respond By: August 22, 2022

Public Hearing Date: Not yet scheduled. A separate notice will be sent to you when a hearing is scheduled.

You may have previously received an Early Consultation Notice regarding this project, and your comments, if provided, were incorporated into the Initial Study. Based on all comments received, Stanislaus County anticipates adopting a Negative Declaration for this project. This referral provides notice of a 30-day comment period during which Responsible and Trustee Agencies and other interested parties may provide comments to this Department regarding our proposal to adopt the Negative Declaration.

All applicable project documents are available for review at: Stanislaus County Department of Planning and Community Development, 1010 10th Street, Suite 3400, Modesto, CA 95354. Please provide any additional comments to the above address or call us at (209) 525-6330 if you have any questions. Thank you.

Applicant: David Lamarre, FM Ingredients, Inc.

Project Location: 10924 Hilmar Road, between Hogin Road and South Central Avenue, in the Turlock area.

APN: 057-006-002

Williamson Act Contract: 79-3677

General Plan: Agriculture

Current Zoning: General Agriculture (A-2-40)

Project Description: Request to establish an agricultural service establishment on a 39.64± acre parcel in the General Agriculture (A-2-40) zoning district. The proposal includes installation of micronutrient mineral batching equipment consisting of loadout and receiving elevators, and conveyors, within an existing 125,000± square-foot agricultural storage building, and construction of three prefabricated steel receiving feed silo tanks for the purpose of mixing nutrients for incorporation into dairy feed. The height of the proposed silos will be up to 52± feet tall. The facility will be owned, operated by, and serve a small group of dairymen and industry professionals within Stanislaus County, as well as dairies within surrounding counties, for the purpose of decreasing internal costs and to mix mineral blends to serve the needs of each individual dairy. The two-week referral previously circulated for the project indicated the project site was improved with one single-



family dwelling, barn, and a 125,000± square-foot agricultural storage building; however, the barn indicated on-site also contains an area converted into a single-family dwelling. Additionally, there is an unpermitted office and restroom within the agricultural storage building. The property was formerly a dairy operation; however, the use of the dairy has ceased on the property. The project site is not currently planted, but receives irrigation water from an on-site deep well.

The facility will be mostly automated and will operate with a maximum of three employees, 8:00 a.m. to 5:00 p.m., seven days a week, year-round. Up to five truck trips and customer trips will occur daily, with the customers consisting of the ownership group who will pick up the mineral mix to be incorporated into dairy feed off-site. An employee restroom is located within the existing agricultural storage building. The site is served by a private well and on-site wastewater treatment system. Drainage is proposed to be handled on-site via overland runoff. The facility and related traffic will take access off County-maintained Hilmar Road via a proposed 20-foot all-weather driveway.

Full document with attachments available for viewing at:
<http://www.stancounty.com/planning/pl/act-projects.shtm>



DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

1010 10TH Street, Suite 3400, Modesto, CA 95354
 Planning Phone: (209) 525-6330 Fax: (209) 525-5911
 Building Phone: (209) 525-6557 Fax: (209) 525-7759

USE PERMIT APPLICATION NO. PLN2022-0003 – FM INGREDIENTS

Attachment A

Distribution List

X	CA DEPT OF CONSERVATION Land Resources		STAN CO ALUC
X	CA DEPT OF FISH & WILDLIFE		STAN CO ANIMAL SERVICES
	CA DEPT OF FORESTRY (CAL FIRE)	X	STAN CO BUILDING PERMITS DIVISION
	CA DEPT OF TRANSPORTATION DIST 10	X	STAN CO CEO
X	CA OPR STATE CLEARINGHOUSE		STAN CO CSA
X	CA RWQCB CENTRAL VALLEY REGION	X	STAN CO DER
	CA STATE LANDS COMMISSION	X	STAN CO ERC
	CEMETERY DISTRICT	X	STAN CO FARM BUREAU
	CENTRAL VALLEY FLOOD PROTECTION	X	STAN CO HAZARDOUS MATERIALS
	CITY OF	X	STAN CO MILK AND DAIRY DIVISION
	COMMUNITY SERVICES/SANITARY DIST	X	STAN CO PUBLIC WORKS
X	COOPERATIVE EXTENSION		STAN CO RISK MANAGEMENT
X	COUNTY OF: MERCED	X	STAN CO SHERIFF
X	DER - GROUNDWATER RESOURCES DIVISION	X	STAN CO SUPERVISOR DIST 2: CHIESA
X	FIRE PROTECTION DIST: MT. VIEW	X	STAN COUNTY COUNSEL
X	GSA: WEST TURLOCK SUBBASIN		StanCOG
	HOSPITAL DIST:	X	STANISLAUS FIRE PREVENTION BUREAU
X	IRRIGATION DIST: TURLOCK	X	STANISLAUS LAFCO
X	MOSQUITO DIST: TURLOCK	X	STATE OF CA SWRCB – DIV OF DRINKING WATER DIST. 10
X	MOUNTAIN VALLEY EMERGENCY MEDICAL SERVICES	X	SURROUNDING LAND OWNERS
	MUNICIPAL ADVISORY COUNCIL:		INTERESTED PARTIES
X	PACIFIC GAS & ELECTRIC	X	TELEPHONE COMPANY: AT&T
	POSTMASTER:		TRIBAL CONTACTS (CA Government Code §65352.3)
	RAILROAD:		US ARMY CORPS OF ENGINEERS
X	SAN JOAQUIN VALLEY APCD		US FISH & WILDLIFE
X	SCHOOL DIST 1: CHATOM UNION		US MILITARY (SB 1462)
X	SCHOOL DIST 2: TURLOCK UNIFIED		USDA NRCS
	WORKFORCE DEVELOPMENT		WATER DIST:
X	STAN CO AG COMMISSIONER		



STANISLAUS COUNTY CEQA REFERRAL RESPONSE FORM

TO: Stanislaus County Planning & Community Development
1010 10th Street, Suite 3400
Modesto, CA 95354

FROM: _____

SUBJECT: USE PERMIT APPLICATION NO. PLN2022-0003 – FM INGREDIENTS

Based on this agency's particular field(s) of expertise, it is our position the above described project:

- _____ Will not have a significant effect on the environment.
_____ May have a significant effect on the environment.
_____ No Comments.

Listed below are specific impacts which support our determination (e.g., traffic general, carrying capacity, soil types, air quality, etc.) – (attach additional sheet if necessary)

- 1.
- 2.
- 3.
- 4.

Listed below are possible mitigation measures for the above-listed impacts: *PLEASE BE SURE TO INCLUDE WHEN THE MITIGATION OR CONDITION NEEDS TO BE IMPLEMENTED (PRIOR TO RECORDING A MAP, PRIOR TO ISSUANCE OF A BUILDING PERMIT, ETC.):*

- 1.
- 2.
- 3.
- 4.

In addition, our agency has the following comments (attach additional sheets if necessary).

Response prepared by:

Name	Title	Date
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DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

1010 10TH Street, Suite 3400, Modesto, CA 95354
Planning Phone: (209) 525-6330 Fax: (209) 525-5911
Building Phone: (209) 525-6557 Fax: (209) 525-7759

CEQA INITIAL STUDY

Adapted from CEQA Guidelines APPENDIX G Environmental Checklist Form, Final Text, January 1, 2020

1. **Project title:** Use Permit Application No. PLN2022-0003 – FM Ingredients
2. **Lead agency name and address:** Stanislaus County
1010 10th Street, Suite 3400
Modesto, CA 95354
3. **Contact person and phone number:** Emily Basnight, Assistant Planner
(209) 525-6330
4. **Project location:** 10924 Hilmar Road, between Hogin Road and South Central Avenue, in the Turlock area (APN: 057-006-002).
5. **Project sponsor's name and address:** David Lamarre, FM Ingredients, Inc.
2715 W Kettleman Lane, Suite 203-310
Lodi, CA 95242
6. **Williamson Act Contract:** 79-3677
7. **General Plan designation:** Agriculture
8. **Zoning:** General Agriculture (A-2-40)
9. **Description of project:**

Request to establish an agricultural service establishment on a 39.64± acre parcel in the General Agriculture (A-2-40) zoning district. The proposal includes installation of micronutrient mineral batching equipment consisting of loadout and receiving elevators, and conveyors, within an existing 125,000± square-foot agricultural storage building, and construction of three prefabricated steel receiving feed silo tanks for the purpose of mixing nutrients for incorporation into dairy feed. The height of the proposed silos will be up to 52± feet tall. The facility will be owned, operated by, and serve a small group of dairymen and industry professionals within Stanislaus County, as well as dairies within surrounding counties, for the purpose of decreasing internal costs and to mix mineral blends to serve the needs of each individual dairy. The two-week referral previously circulated for the project indicated the project site was improved with one single-family dwelling, barn, and a 125,000± square-foot agricultural storage building; however, the barn indicated on-site also contains an area converted into a single-family dwelling. Additionally, there is an unpermitted office and restroom within the agricultural storage building. The property was formerly a dairy operation; however, the use of the dairy has ceased on the property. The project site is not currently planted, but receives irrigation water from an on-site deep well.

The facility will be mostly automated and will operate with a maximum of three employees, 8:00 a.m. to 5:00 p.m., seven days a week, year-round. Up to five truck trips and customer trips will occur daily, with the customers consisting of the ownership group who will pick up the mineral mix to be incorporated into dairy feed off-site. An employee restroom is located within the existing agricultural storage building. The site is served by a private well and on-site wastewater treatment system. Drainage is proposed to be handled on-site via overland runoff. The facility and related traffic will take access off County-maintained Hilmar Road via a proposed 20-foot all-weather driveway.

- 10. Surrounding land uses and setting:**

Dairies, row crops, and scattered single-family dwellings in all directions; a chicken ranch to the northwest; San Joaquin river to the west; and the Stanislaus and Merced County border to the southeast.
- 11. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):**

Stanislaus County Department of Public Works
Department of Environmental Resources
San Joaquin Valley Air Pollution Control District
- 12. Attachments:**

 - I. Health Risk Assessment, performed by Yorke Engineering, LLC., received July 6, 2022

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology / Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☒ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- ☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- ☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature on file.

Prepared by Emily Basnight, Assistant Planner

July 20, 2022

Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

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

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

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

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

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration.

Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

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

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

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

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

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

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

9) The explanation of each issue should identify:

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

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

ISSUES

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

Discussion: The site is currently improved with two single-family dwellings, one of which was an unpermitted conversion from a barn, and a 125,000± square-foot agricultural storage building consisting of open floor area, and an unpermitted office area and restroom; the balance of the property is currently unplanted but receives irrigation water from a private well on-site. The only scenic designation in the County is along I-5, which is not near the project site. The site itself is not considered to be a scenic resource or a unique vista. The project will not degrade the existing visual character or quality of the site or its surroundings. The proposal includes installation of micronutrient mineral batching equipment consisting of loadout and receiving elevators, and conveyors within the existing 125,000± square-foot agricultural storage building, and construction of three prefabricated steel receiving feed silo tanks for the purpose of mixing nutrients for incorporation into dairy feed. The installation of the silos and receiving equipment will be the only new improvements to be placed outside the existing building. Standard conditions of approval will be added to this project to address glare from any on-site lighting. Conditions of approval will be added to the project requiring building permits for the silos, equipment, and the unpermitted single-family dwelling, office, and restroom, to be obtained from the Stanislaus County Building Permits Division prior to operation. No adverse impacts to the existing visual character of the site or its surroundings are anticipated.

Mitigation: None.

References: Application information; Stanislaus County Zoning Ordinance; the Stanislaus County General Plan; and Support Documentation.¹

II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			X	
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))?			X	
d) Result in the loss of forest land or conversion of forest land to non-forest use?			X	
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?			X	

Discussion: The 39.64± acre project site is currently enrolled in California Land Conservation Act ("Williamson Act") Contract No. 79-3677. The project site is classified as "Unique Farmland" by the California Department of Conservation's Farmland Mapping and Monitoring Program. The United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS) Web Soil Survey indicates that approximately two-thirds of the property is comprised of Waukena fine sandy loam (WbA), moderately saline-alkali, 0 to 1 percent slopes with a grade of 4 and index rating of 38. The remaining one-third of the property is comprised of Fresno sandy loam (FtA), slightly saline-alkali, 0 to 1 percent slopes with a grade of 4 and index rating of 24. The California Revised Storie Index is a rating system based on soil properties that dictate the potential for soils to be used for irrigated agricultural production in California. This rating system grades soils with an index rating of 38 and 24 as poor. Stanislaus County considers land that meets at least one of the following requirements to be prime farmland under the Uniform Rules: parcels comprised of Grade 1 or 2 soils; irrigated pasture land which supports livestock used for the production of food and fiber; and land used for unprocessed agricultural plant production with an annual gross value of not less than eight hundred dollars per acre. The project site does not meet the definition of prime farmland under the County's Uniform Rules. The proposed project will not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

The project proposes to establish an agricultural service establishment on a 39.64± acre parcel in the General Agriculture (A-2-40) zoning district. The proposal includes installation of micronutrient mineral batching equipment consisting of loadout and receiving elevators, and conveyors within an existing 125,000± square-foot agricultural storage building, and construction of three prefabricated steel receiving feed silo tanks for the purpose of mixing nutrients for incorporation into dairy feed. The facility will be owned, operated by, and serve a small group of dairymen and industry professionals within Stanislaus County, as well as dairies within surrounding counties, for the purpose of vertical integration and to provide mineral blends to serve the needs of each individual dairy. The surrounding area is comprised of row crops, scattered single-family dwellings and dairies in all directions; a chicken ranch is located northwest of the project site; the San Joaquin river is 1.27± miles to the west; and the Stanislaus and Merced County border is 1.2± miles to the southeast of the project site.

The project site has general plan designation of Agriculture and Zoning Destination of General Agriculture(A-2-40). Within the A-2 zoning district, the County has determined that certain uses related to agricultural production are “necessary for a healthy agricultural economy.” The County allows agriculture service establishments, including agriculture processing plants and facilities by obtaining a Tier Two Use Permit if specific criteria can be met and if specific findings can be made. Those findings include that the establishment, as proposed, will not be substantially detrimental to, or in conflict with, the agricultural use of other property in the vicinity; that the use is necessary and desirable for such establishment to be located within the agricultural area as opposed to areas zoned for commercial or industrial usage; and that it will not create a concentration of commercial and industrial uses in the vicinity. Agricultural service establishments under a Tier Two Use Permit must also serve the immediately surrounding area, or local agriculture and customers, as opposed to having a widespread service area. There are limits to the number of employees that are involved in the operation under a Tier Two Use Permit; no more than 10 full-time employees, or 20 seasonal employees are permitted to be involved in the operation. In addition, the Planning Commission must find that the establishment, maintenance, and operation of the proposed use is consistent with the General Plan and will not be detrimental to the health, safety, and general welfare of persons residing or working in the neighborhood of the use and that it will not be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County. The proposed facility will be mostly automated and will operate with a maximum of three employees, 8:00 a.m. to 5:00 p.m., seven days a week, year-round. The facility will be owned, operated by, and serve a small group of dairymen and industry professionals within Stanislaus County, as well as dairies within surrounding counties, for the purpose of decreasing internal costs and to mix mineral blends to serve the needs of each individual dairy. The proposed project is considered a Tier Two use.

County Code Section 21.20.045, in compliance with Government Code Section 51238.1, specifies that uses approved on contracted lands shall be consistent with three principles of compatibility. Those principles state that the proposed use shall not significantly compromise, displace, impair or remove current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in the A-2 zoning district. The project as proposed is considered a Tier Two use, which includes agricultural service establishments. Within the A-2 zoning district, the County has determined Tier Two uses shall be evaluated on a case-by-case basis by the Planning Commission and/or Board of Supervisors to determine whether they are consistent with the principles of compatibility set forth in Section 21.20.045 of the County Code. The site has been improved with two single-family dwellings, one of which was an unpermitted conversion from a barn, and a 125,000± square-foot agricultural storage building consisting of open floor area, and an unpermitted office area and restroom. While building permits will be required to be obtained for the existing unpermitted improvements, the only new construction proposed as part of this project will be for the pre-fabricated steel silos and equipment. The request is not expected to perpetuate any significant conversion of farmland to non-agriculture use. No impacts to agriculture are anticipated to occur as a result of this project as the project site is currently developed with residential and accessory structures and considered topographically flat.

During project review, this application was referred to the Department of Conservation (DOC) for review and input and no response has been received to date.

The project receives irrigated water by a private irrigation well on-site. The project was referred to the Turlock Irrigation District (TID); no comments regarding irrigation or domestic water were received. A condition of approval will be applied to the project requiring any development that impacts irrigation facilities to meet the District's requirements.

Buffer and Setback Guidelines are applicable to new or expanding uses approved in or adjacent to the General Agriculture (A-2-40) zoning district, and are required to be designed to physically avoid conflicts between agricultural and non-agricultural uses. General Plan Amendment No. 2011-01 – *Revised Agricultural Buffers* was approved by the Board of

Supervisors on December 20, 2011, to modify County requirements for buffers on agricultural projects. As this is a Tier Two use, if not considered people-intensive by the Planning Commission, the project is not subject to agricultural buffers. As mentioned previously, the proposed operation will be mostly automated within an existing building and will operate with a maximum of three employees, 8 a.m. to 5:00 p.m., seven days a week, year-round. Up to five truck trips and customer trips will occur daily, with the customers consisting of the ownership group who will pick up the mineral mix to be incorporated into dairy feed off-site. The project was referred to the Stanislaus County Agricultural Commissioner, and no comments have been received to date. Therefore, staff believes the project can be considered low people-intensive, thus not subject to the County's Agricultural Buffer requirements.

No forest lands exist in Stanislaus County.

Based on the specific features and design of this project, it does not appear this project will impact the long-term productive agricultural capability of surrounding contracted lands in the A-2 zoning district. There is no indication this project will result in the removal of adjacent contracted land from agricultural use. The project will have less than significant impacts to Agriculture and Forest Resources.

Mitigation: None.

References: Application information; United States Department of Agriculture NRCS Web Soil Survey; California State Department of Conservation Farmland Mapping and Monitoring Program - Stanislaus County Farmland 2016; Referral response from Turlock Irrigation District, dated March 16, 2022; Stanislaus County Zoning Ordinance; Stanislaus County General Plan and Support Documentation.¹

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. -- Would the project:				
	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
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?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those odors adversely affecting a substantial number of people?			X	

Discussion: The proposed project is located within the San Joaquin Valley Air Basin (SJVAB) and, therefore, falls under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). In conjunction with the Stanislaus Council of Governments (StanCOG), the SJVAPCD is responsible for formulating and implementing air pollution control strategies. The SJVAPCD's most recent air quality plans are the 2007 PM₁₀ (respirable particulate matter) Maintenance Plan, the 2008 PM_{2.5} (fine particulate matter) Plan, and the 2007 Ozone Plan. These plans establish a comprehensive air pollution control program leading to the attainment of state and federal air quality standards in the SJVAB, which has been classified as "extreme non-attainment" for ozone, "attainment" for respirable particulate matter (PM-10), and "non-attainment" for PM 2.5, as defined by the Federal Clean Air Act.

The project proposes to establish an agricultural service establishment on a 39.64± acre parcel in the General Agriculture (A-2-40) zoning district. The proposal includes installation of micronutrient mineral batching equipment consisting of loadout and receiving elevators, and conveyors within an existing 125,000± square-foot agricultural storage building, and construction of three prefabricated steel receiving feed silo tanks for the purpose of mixing nutrients for incorporation into dairy feed.

The primary source of air pollutants generated by this project would be classified as being generated from "mobile" sources. Mobile sources would generally include dust from roads, farming, and automobile exhausts. Mobile sources are generally regulated by the Air Resources Board of the California EPA which sets emissions for vehicles and acts on issues regarding cleaner burning fuels and alternative fuel technologies. As such, the District has addressed most criteria air pollutants through basin wide programs and policies to prevent cumulative deterioration of air quality within the Basin. The facility will be mostly automated and will operate with a maximum of three employees, 8:00 a.m. to 5:00 p.m., seven days a week, year-round. Up to five truck trips and customer trips will occur daily, with the customers consisting of the ownership group who will pick up the mineral mix to be incorporated into dairy feed off-site.

A comment was received from SJVAPCD in response to the Early Consultation prepared for the proposed project indicating that construction and operation-related emissions for the project would have a less than significant impact on air quality and are not expected to exceed any of the District's annual emissions significant thresholds, including: 100 tons per-year of carbon monoxide (CO), ten tons per-year of oxides of nitrogen (NOx), ten tons per-year of reactive organic gases (ROG), 27 tons per-year of oxides of sulfur (SOx), 15 tons per-year of particulate matter of ten microns or less in size (PM10), or 15 tons per-year of particulate matter of 2.5 microns or less in size (PM2.5); however, the District indicated that emissions generated by the proposed project should be studied further via a California Emission Estimator Model (CalEEMod) analysis and Health Risk Assessment (HRA) to evaluate the project's health related impacts. Additionally, the District requested that an Ambient Air Quality Analysis (AAQA) be included if emissions of any pollutant exceeds 100 pounds per day.

A Health Risk Assessment (HRA) was performed by Yorke Engineering, LLC to study health related impacts of the proposed project. The HRA was completed using the HARP2 Air Dispersion Modeling and Risk Tool (ADMRT) and the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) stationary source air dispersion modeling for the project to examine the health risk and emission impacts from project operations. Emissions were examined specifically for operations comprised of truck transportation of raw materials into the facility and finished products out of the facility. The results of the HRA indicate the project's cancer risk and chronic risk would be less than significant. The project was also found to have less than significant impacts to Toxic Air Contaminants (TACs) from operational emissions. Yorke Engineering also calculated the impacts associated with the operation of the proposed project using the California Emissions Estimator Model (CalEEMod) and California Air Pollution Control Officer's Association (CAPCOA) methodology to estimate operational mobile source emissions from diesel truck engines. The analysis found that expected emission increases for the project will be less than 100 pounds per-day for ROG, CO, SO2, NOx, PM10, and PM2.5. The HRA was sent to the Air District for review. Following the District's review, the District confirmed that the project will not have a significant impact on public health and that an ambient air quality analysis (AAQA) will not be required as the project will not have the potential to significantly contribute to an exceedance of state or federal Ambient Air Quality Standards. The HRA was finalized by Yorke Engineering, LLC on July 6, 2022, following the District's acceptance of the assessment. The Air District will require an Authority to Construct (ATC) Permit and Permit to Operate (PTO) for the project. Additionally, the project may be subject to the following District Rules: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 Nuisance, Rules 4601 Architectural Coatings, 4641 Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations, Rule 4550 (Conservation Management Practices), and Rule 4570 (Confined Animal Facilities). A condition of approval will be placed on the project requiring that the applicant be in compliance with the District's rules and regulations prior to issuance of a building permit. As the project must comply with District regulations, the project's emissions would be less than significant for all criteria pollutants, would not be inconsistent with any applicable air quality attainment plans, and would result in less than significant impacts to air quality.

The closest sensitive receptor to the project site is a house located on the property at the northwest corner of South Morgan Road and Hilmar Road, approximately .26 miles to the northwest of the project site, and therefore not expected to be impacted by the project activities. Additionally, odors are not expected to impact off-site receptors, as construction equipment and haul trucks will abide by best practices for equipment used during construction, and truck idling on-site.

Potential impacts to air quality from the proposed project are also evaluated by Vehicle Miles Traveled (VMT). The calculation of VMT is the number of cars/trucks multiplied by the distance traveled by each car/truck. California Environmental Quality Act (CEQA) Guidelines Section 15064.3, subdivision (a), defines VMT as the amount and distance of automobile travel attributable to a project. A technical advisory on evaluating transportation impacts in CEQA published by the Governor's Office of Planning and Research (OPR) in December of 2018 clarified the definition of automobiles as referring to on-road passenger vehicles, specifically cars and light trucks. While heavy trucks are not considered in the definition of automobiles for which VMT is calculated for, heavy-duty truck VMT could be included for modeling convenience. According to the same OPR technical advisory, many local agencies have developed a screening threshold of VMT to

indicate when detailed analysis is needed. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less than significant transportation impact. The proposed project will generate a low amount of vehicle trips with five truck trips per-day, for a total of 10 heavy-truck trips (inbound and outbound trips for five trucks), and a maximum of six vehicle trips per-day (anticipated inbound and outbound trips by employees). As this is below the District's threshold of significance for vehicle and heavy truck trips, no significant impacts from vehicle and truck trips to air quality are anticipated.

Based on the entirety of the HRA and emissions estimate performed by Yorke Engineering, LLC for the project, and the response from the SJVAPCD, the proposed project is expected to have a less than significant impact on air quality.

Mitigation: None.

References: Application information; San Joaquin Valley Air Pollution Control District - Regulation VIII Fugitive Dust/PM-10 Synopsis; www.valleyair.org; Governor's Office of Planning and Research Technical Advisory, December 2018; San Joaquin Valley Air Pollution Control District's Small Project Analysis Level (SPAL) guidance, November 13, 2020; Health Risk Assessment, performed by Yorke Engineering, LLC., received July 6, 2022; Email response from San Joaquin Valley Air Pollution Control District, received June 10, 2022; Email received from Yorke Engineering, LLC., received on July 6, 2022; Email response from San Joaquin Valley Air Pollution Control District, received July 6, 2022; and the Stanislaus County General Plan and Support Documentation.¹

IV. BIOLOGICAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
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?			X	
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?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
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?			X	

Discussion: The project is located within the Hatch Quad of the California Natural Diversity Database. There are four animals, which are state or federally listed, threatened, or identified as species of special concern or a candidate of special concern within this quad. These species include the Swainson's hawk, tricolored blackbird, green sturgeon – southern DPS, and steelhead – Central Valley DPS. There are no reported siting's of any of the aforementioned species on the project site; however, a Swainson's hawk nesting site was observed in 1979 and 1988 approximately 1± mile west of the project site in the Crows Landing Quad, and another nesting site was observed in 1988 approximately 1.5± miles southwest of the project site in the Hatch Quad according to the California Natural Diversity Database. Steelhead – Central Valley DPS smolts were identified between the Mossdale Trawl site to the Sack dam in the lower San Joaquin river, part of which is located 1.2± miles west of the project site. Two tricolored blackbird nesting sites were observed, one on June 20, 2000 and again on April 25, 2008, .7± miles south of the project site in the Hatch Quad, and another nesting site was observed on May 5, 1971, located 1.76± miles to the northeast of the project site within the Crows Landing Quad. There is a very low likelihood that these species are present on the project site as it has already been disturbed for agricultural purposes and developed with various structures. Additionally, the proposed project will primarily take place indoors within the existing 125,000 square-foot agricultural storage building.

An Early Consultation was referred to the California Department of Fish and Wildlife (formerly the Department of Fish and Game) and no response was received. The project will not conflict with a Habitat Conservation Plan, a Natural Community Conservation Plan, or other locally approved conservation plans. Impacts to endangered species or habitats, locally designated species, or wildlife dispersal or mitigation corridors are considered to be less than significant.

Mitigation: None.

References: Application information; California Department of Fish and Wildlife's Natural Diversity Database Quad Species List; California Natural Diversity Database, Planning and Community Development GIS, accessed July 6, 2022; Stanislaus County General Plan and Support Documentation.¹

V. CULTURAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?			X	
c) Disturb any human remains, including those interred outside of formal cemeteries?			X	

Discussion: It does not appear this project will result in significant impacts to any archaeological or cultural resources. The project site is improved with two single-family dwellings, one of which was an unpermitted conversion from a barn, and a 125,000± square-foot agricultural storage building consisting of open floor area, and an unpermitted office area and restroom. Three prefabricated steel silos and receiving equipment will be the only improvements to be installed outside the existing building; however, conditions of approval will be placed on the project, requiring that any construction activities shall be halted, if any resources are found, until appropriate agencies are contacted and an archaeological survey is completed.

Mitigation: None.

References: Application information; Stanislaus County General Plan and Support Documentation.¹

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

Discussion: The California Environmental Quality Act (CEQA) Guidelines Appendix F states that energy consuming equipment and processes, which will be used during construction or operation such as: energy requirements of the project by fuel type and end use, energy conservation equipment and design features, energy supplies that would serve the project, total estimated daily vehicle trips to be generated by the project, and the additional energy consumed per trip by mode, shall be taken into consideration when evaluating energy impacts. Additionally, the project's compliance with applicable state or local energy legislation, policies, and standards must be considered.

A response was received from the Turlock Irrigation District (TID) for the project requiring any development that will impact electrical facilities will be required to meet the District's standards. Additionally, the District has requested the applicant contact the District for any new electrical service and to notify the District's engineering division of any new load/equipment to be added to the existing panel serving the existing storage building. Any facility changes for any pole or electrical facility relocation will be at the developer's expense. Conditions of approval reflecting TID's comments will be added to the project.

Energy consuming equipment and processes include construction equipment, trucks, and the employee and customer vehicles. As discussed in Section III – Air Quality, these activities would not significantly increase Vehicle Miles Traveled (VMT), due to the number of vehicle trips not exceeding a total of 110 vehicle trips per-day. There will be a maximum total of 10 heavy-truck trips per day (total inbound and outbound of truck and customer trips), and a total of six vehicle trips per-day (anticipated inbound and outbound trips by employees). Additionally, the trucks are the main consumers of energy associated with this project but will be subject to applicable Air District regulations, including rules and regulations that increase energy efficiency for heavy trucks. Consequently, emissions would be minimal. Therefore, consumption of energy resources would be less than significant without mitigation for the proposed project.

As stated above in the Air Quality section, the proposal includes installation of micronutrient mineral batching equipment consisting of loadout and receiving elevators, and conveyors within the existing 125,000± square-foot agricultural storage building and construction of three prefabricated steel receiving feed silo tanks for the purpose of mixing nutrients for incorporation into dairy feed. The installation of the silos and receiving equipment will be the only new improvements to be placed outside the existing building. A comment was received in response to the Early Consultation referral for the project indicating that further review of the project's potential impacts to air quality should be conducted. An emissions estimate was conducted by Yorke Engineering, LCC using the California Emissions Estimator Model (CalEEMod) and California Air Pollution Control Officer's Association (CAPCOA) methodology to estimate operational mobile source emissions from diesel truck engines. The analysis found that expected emission increases for the project will be less than 100 pounds per-day for ROG, CO, SO₂, NO_x, PM₁₀, and PM_{2.5}; therefore, an ambient air quality analysis (AAQA) will not be required as the project will not have the potential to significantly contribute to an exceedance of state or federal Ambient Air Quality Standards. As discussed in Section III – Air Quality, the Air District confirmed that the project will not require further study. Based on the Air District's referral response, Permit to Operate (PTO) and an Authority to Construct (ATC) permit will be required to be obtained from the SJVAPCD for the proposed project. The project may also be subject to other applicable Air District permits including but not limited to the following District Rules: Regulation VIII (Fugitive PM₁₀ Prohibitions), Rule 4102 Nuisance, Rules 4601 Architectural Coatings, 4641 Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations, Rule 4550 (Conservation Management Practices), and Rule 4570 (Confined Animal Facilities). Staff will include a condition of approval on the project requiring that the applicant be in compliance with the District's rules and regulations. As the project must comply with District regulations, the project would result in less than significant impacts to energy.

The proposed structures are subject to the mandatory planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and environmental quality measures of the California Green Building Standards (CALGreen) Code (California Code of Regulations, Title 24, Part 11). Conditions of approval will be added to the project requiring building permits for the silos, equipment, and unpermitted single-family dwelling, and office and restroom to be obtained from the Stanislaus County Building Permits Division prior to operation.

Mitigation: None.

References: Application information; CEQA Guidelines; San Joaquin Valley Air Pollution Control District - Regulation VIII Fugitive Dust/PM-10 Synopsis; www.valleyair.org; Governor's Office of Planning and Research Technical Advisory, December 2018; Health Risk Assessment, performed by Yorke Engineering, LLC., received July 6, 2022; Email response from San Joaquin Valley Air Pollution Control District, received June 10, 2022; Email received from Yorke Engineering, LLC., received on July 6, 2022; Email response from San Joaquin Valley Air Pollution Control District, received July 6, 2022; Title 16 of County Code; CA Building Code; Stanislaus County Zoning Ordinance (Title 21); Stanislaus County General Plan and Support Documentation.¹

VII. GEOLOGY AND SOILS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?			X	
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?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?			X	
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

Discussion: The United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS) Web Soil Survey indicates that approximately two-thirds of the property is comprised of Waukena fine sandy loam (WbA), and

one-third of the property is composed of Fresno sandy loam (FtA). As contained in Chapter Five of the General Plan Support Documentation, the areas of the County subject to significant geologic hazard are located in the Diablo Range, west of Interstate 5; however, as per the California Building Code, all of Stanislaus County is located within a geologic hazard zone (Seismic Design Category D, E, or F) and a soils test may be required at building permit application. Results from the soils test will determine if unstable or expansive soils are present. If such soils are present, special engineering of the structure will be required to compensate for the soil deficiency. Any structures resulting from this project will be designed and built according to building standards appropriate to withstand shaking for the area in which they are constructed. An Early Consultation referral response received from the Department of Public Works indicated that a grading, drainage, and erosion/sediment control plan for the project will be required, subject to Public Works review and Standards and Specifications. A condition of approval will be added to the project to ensure this requirement is met prior to issuance of any building permit. Likewise, any addition or expansion of a septic tank or alternative waste water disposal system would require the approval of the Department of Environmental Resources (DER) through the building permit process, which also takes soil type into consideration within the specific design requirements. DER, Public Works, and the Building Permits Division review and approve any building or grading permit to ensure their standards are met. Conditions of approval regarding these standards will be applied to the project and will be triggered when a building permit is requested.

The project was referred to the Department of Environmental Resources (DER) which provided a response to the project requiring the applicant/developer to notify DER regarding any modifications to the on-site wastewater treatment system (OWTS) and that all modifications will be subject to review and approval by DER; and that the OWTS will be subject to review and required to upgrade to accommodate the change in wastewater flows if there is an increase to the facility's drainage fixtures or the number of users on-site. Additionally, DER will require any new building requiring a new OTWS to be designed according to DER standards and that all applicable Local Agency Management Program (LAMP) standards and required setbacks are met. DER's comments will be added to the project as conditions of approval.

The project site is not located near an active fault or within a high earthquake zone. Landslides are not likely due to the flat terrain of the area; therefore, impacts are anticipated to be less than significant.

Mitigation: None.

References: Application information; Referral response from the Stanislaus County Department of Public Works dated April 22, 2022; Referral response from County Department of Environmental Resources, dated March 21, 2022; Email received from Stanislaus County Department of Environmental Resources – Health Division, dated May 3, 2022; Stanislaus County General Plan and Support Documentation.¹

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

Discussion: The principal Greenhouse Gasses (GHGs) are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H₂O). CO₂ is the reference gas for climate change because it is the predominant greenhouse gas emitted. To account for the varying warming potential of different GHGs, GHG emissions are often quantified and reported as CO₂ equivalents (CO₂e). In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] No. 32), which requires the California Air Resources Board (ARB) design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020. Two additional bills, SB 350 and SB32, were passed in 2015 further amending the states Renewables Portfolio Standard (RPS) for electrical generation and amending the reduction targets to 40% of 1990 levels by 2030.

This project proposes to establish an agricultural service establishment on a 39.64± acre parcel in the General Agriculture (A-2-40) zoning district. The proposal includes installation of micronutrient mineral batching equipment consisting of loadout and receiving elevators, and conveyors within an existing 125,000± square-foot agricultural storage building, and construction of three prefabricated steel receiving feed silo tanks for the purpose of mixing nutrients for incorporation into dairy feed. The facility will be mostly automated and will operate with a maximum of three employees, 8:00 a.m. to 5:00 p.m., seven days a week, year-round. Up to five truck trips and customer trips will occur daily, with the customers consisting of the ownership group who will pick up the mineral mix to be incorporated into dairy feed off-site. Conditions of approval will be added to the project requiring building permits for the silos, equipment, and unpermitted single-family dwelling, and office and restroom to be obtained from the Stanislaus County Building Permits Division prior to operation; however, the silos and receiving equipment will be the only new equipment installed outside of the building.

The short-term emissions of GHGs during construction, primarily composed of CO₂, CH₄, and N₂O, would be the result of fuel combustion by construction equipment and motor vehicles. The other primary GHGs (HFCs, PFCs, and SF₆) are typically associated with specific industrial sources and are not expected to be emitted by future construction at this project site. As described above in Section III - Air Quality, the use of heavy-duty construction equipment would be very limited; therefore, the emissions of CO₂ from future construction would be less than significant. Additionally, the construction of any future proposed buildings is subject to the mandatory planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and environmental quality measures of the California Green Building Standards (CALGreen) Code (California Code of Regulations, Title 24, Part 11). Construction activities associated with this project are considered to be less than significant as they are temporary in nature and are subject to meeting San Joaquin Valley Air Pollution Control District (SJVAPCD) standards for air quality control.

Direct emissions of GHGs from the operation of the proposed project are primarily due to truck trips. Therefore, the project would result in direct annual emissions of GHGs during operation. As required by California Environmental Quality Act (CEQA) Guidelines section 15064.3, potential impacts regarding Green House Gas Emissions should be evaluated using Vehicle Miles Traveled (VMT). The calculation of VMT is the number of cars/trucks multiplied by the distance traveled by each car/truck. Total vehicle trips as a result of this project will not exceed 110 trips per-day. As discussed above, the proposed project will generate a total of 10 heavy-truck trips per day (total inbound and outbound of truck and customer trips), and a total of six vehicle trips per-day (anticipated inbound and outbound trips by employees).

As discussed in Section III – Air Quality, Yorke Engineering, LLC performed a Health Risk Assessment (HRA) and estimated mobile operation emissions from diesel truck engines. The emissions estimates focused on criteria pollutants such as: Ozone (ROG), Carbon Monoxide (CO), Sulfur Dioxide (SO₂), Nitrogen Oxides (NO_x), Particulate Matter 10 (PM₁₀), and Particulate Matter 2.5 (PM_{2.5}), Toxic Air Contaminants (TACs), and also included estimates for CO₂, CH₄, N₂O, CO₂e associated with the operation of the project. The analysis found that expected emission increases for the project will be less than 100 pounds per-day for all pollutants. Following the Air District's review of the emissions estimates, the District confirmed that an ambient air quality analysis (AAQA) will not be required as the project will not have the potential to significantly contribute to an exceedance of state or federal Ambient Air Quality Standards which include standards for GHGs. Based on the Air District's referral response, a Permit to Operate (PTO) and an Authority to Construct (ATC) permit will be required to be obtained from the SJVAPCD for the proposed project. The project may also be subject to other applicable Air District permits including but not limited to the following District Rules: Regulation VIII (Fugitive PM₁₀ Prohibitions), Rule 4102 Nuisance, Rules 4601 Architectural Coatings, 4641 Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations, Rule 4550 (Conservation Management Practices), and Rule 4570 (Confined Animal Facilities).

Based on project details and the conditions of approval to be placed on the project requiring that the applicant be in compliance with the District's rules and regulations, GHG emissions are considered to be less than significant for the project.

Mitigation: None.

References: Application information; San Joaquin Valley Air Pollution Control District referral response, dated March 21, 2022; Health Risk Assessment, performed by Yorke Engineering, LLC., received July 6, 2022; Email response from San Joaquin Valley Air Pollution Control District, received June 10, 2022; Email received from Yorke Engineering, LLC., received on July 6, 2022; Email response from San Joaquin Valley Air Pollution Control District, received July 6, 2022; Stanislaus County General Plan and Support Documentation.¹

IX. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
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?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

Discussion: The project does not interfere with the Stanislaus County Local Hazard Mitigation Plan, which identifies risks posed by disasters and identifies ways to minimize damage from those disasters. The County Department of Environmental Resources (DER) is responsible for overseeing hazardous materials. This project was referred to the Department of Environmental Resources – Hazardous Materials Division; which responded that the project will not have a significant effect on the environment. A standard condition of approval will be added to the project requiring the applicant contact DER for any appropriate permitting requirements for hazardous materials and/or wastes. The proposed use is not recognized as a generator and/or consumer of hazardous materials, therefore no significant impacts associated with hazards or hazardous materials are anticipated to occur as a result of the proposed project.

Pesticide exposure is a risk in areas located in the vicinity of agriculture. Sources of exposure include contaminated groundwater from drift from spray applications. Application of sprays is strictly controlled by the Agricultural Commissioner and can only be accomplished after first obtaining permits. Additionally, agricultural buffers are intended to reduce the risk of spray exposure to surrounding people.

Buffer and Setback Guidelines are applicable to new or expanding uses approved in or adjacent to the General Agriculture (A-2) zoning district, and are required to be designed to physically avoid conflicts between agricultural and non-agricultural uses. General Plan Amendment No. 2011-01 – *Revised Agricultural Buffers* was approved by the Board of Supervisors on December 20, 2011, to modify County requirements for buffers on agricultural projects. As this is a Tier Two use, if not considered people-intensive by the Planning Commission, the project is not subject to agricultural buffers. The proposed operation will be mostly automated within an existing building and will operate with a maximum of three employees, 8 a.m. to 5:00 p.m., seven days a week, year-round. Up to five truck trips and customer trips will occur daily, with the customers consisting of the ownership group who will pick up the mineral mix to be incorporated into dairy feed off-site. The project

was referred to the Stanislaus County Agricultural Commissioner, and no comments have been received to date. Therefore, staff believes the project can be considered low people-intensive, thus not subject to the County's Agricultural Buffer requirements.

The project site is not listed on the EnviroStor database managed by the CA Department of Toxic Substances Control or within the vicinity of any airport. The site is located in a Local Responsibility Area (LRA) for fire protection and is served by Mountain View Fire Protection District. The project was referred to the District, and no comments have been received to date. A referral response from the DER Health Division, requesting that the applicant notify DER regarding any modifications of the on-site waste water treatment system (OWTS) and that the existing OWTS will be subject to further review if an increase in the number of users (people on-site) or drainage fixtures occurs. All applicable County Local Agency Management Program (LAMP) standards and required setbacks are to be met. DER's requirements will be added to the project as conditions of approval.

No significant impacts associated with hazards or hazardous materials are anticipated to occur as a result of the proposed project.

Mitigation: None.

References: Application information; Referral response received from Stanislaus County Department of Environmental Resources – Hazardous Materials Division, dated March 8, 2022; Department of Toxic Substances Control's data management system (EnviroStar); Referral response received from Stanislaus Environmental Review Committee, dated March 21, 2022; Referral response received from Stanislaus County Department of Environmental Resources – Health Division, dated March 21, 2022; Email received from the Department of Environmental Resources – Health Division, dated May 3, 2022; Stanislaus County Zoning Ordinance (Title 21); Stanislaus County General Plan and Support Documentation.¹

X. HYDROLOGY AND WATER QUALITY -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
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:			X	
i) result in substantial erosion or siltation on- or off-site;			X	
ii) substantially increase the rate of amount of surface runoff in a manner which would result in flooding on- or off-site.			X	
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
iv) impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	
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Discussion: Areas subject to flooding have been identified in accordance with the Federal Emergency Management Act (FEMA). The project site is located in FEMA Flood Zone X, which includes areas determined to be outside the 0.2% annual chance floodplains. The project proposes to handle stormwater drainage overland. A referral response received from the Department of Public Works indicated that a grading, drainage, and erosion/sediment control plan for the project shall be submitted for any building permit that will create a larger or smaller building footprint subject to Public Works review and Standards and Specifications, as well as the submittal of a Storm Water Pollution Prevention Plan (SWPPP) prior to the approval of any grading plan. The project proposes to use an existing storage building; however, three prefabricated steel silos and receiving equipment will be constructed on the outside of the building. The submittal of the grading, drainage, erosion/sediment control plan and SWPPP will be made conditions of approval for this project prior to issuance of a building permit. Accordingly, runoff associated with the construction at the proposed project site will be reviewed as part of the grading review process and be required to be maintained on-site. Additionally, any construction will be reviewed under the Building Permit process and must be reviewed and approved by DER and adhere to current Local Agency Management Program (LAMP) standards. LAMP standards include minimum setback from wells to prevent negative impacts to groundwater quality. An existing domestic well will be used for the project. However, any future new wells are to be constructed on-site, they will be subject to review under the County's Well Permitting Program, which will determine whether a new well will require environmental review.

The Sustainable Groundwater Management Act (SGMA) was passed in 2014 with the goal of ensuring the long-term sustainable management of California's groundwater resources. SGMA requires agencies throughout California to meet certain requirements including forming Groundwater Sustainability Agencies (GSA), developing Groundwater Sustainability Plans (GSP), and achieving balanced groundwater levels within 20 years. The site is located in the West Turlock Subbasin GSA. The East Turlock Subbasin GSA and West Turlock Subbasin GSA collaboratively developed one GSP to manage groundwater sustainably through at least 2042. The GSAs adopted the Turlock Subbasin GSP on January 6, 2022 and submitted the GSP to the California Department of Water Resources (DWR) on January 28, 2022. DWR has until the end of 2024 to review the plan. Currently, the GSAs are preparing for GSP implementation.

The California Safe Drinking Water Act (California Health and Safety Code (CHSC) Section 116275(h)) defines a Public Water System as a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. A public water system includes the following:

1. Any collection, treatment, storage, and distribution facilities under control of the operator of the system that are used primarily in connection with the system.
2. Any collection or pretreatment storage facilities not under the control of the operator that are used primarily in connection with the system.
3. Any water system that treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

The project was referred to the Environmental Review Committee (ERC), which responded with requirements to submit a water system evaluation for the project to determine if the project would meet the definition of a public water system. A water system evaluation was submitted and reviewed by Department of Environmental Resources (DER) – Health Division. DER indicated that the private well on the project site does not currently meet the definition of a Public Water System as defined in CHSC Section 116275(h). However, DER requested that the applicant contacts DER if the water system ever meets the definition of a public water system. If the existing well is ever required to become a Public Water System, the applicant must submit an application for a water supply permit with the associated technical report to Stanislaus County DER which will determine if the well water meets State mandated standards for water quality and must also obtain concurrence from the State of California Water Resources Control Board (SWRCB), Drinking Water Division, in accordance to CHSC Section 116527 (SB1263). If the well water does not meet State standards, the applicant may need to either drill a new well or install a water treatment system for the current well. This requirement will be added as a condition of approval for the project.

The project was referred to the Turlock Irrigation District (TID); no comments regarding irrigation or domestic water were received.

The project was referred to Regional Water; however, no response was received to date.

As a result of the conditions of approval required for this project, impacts associated with drainage, water quality, and runoff are expected to have a less than significant impact.

Mitigation: None.

References: Application information; Referral response received from Stanislaus County Department of Public Works, dated April 25, 2022; Referral response received from Stanislaus County Department of Environmental Resources, dated March 21, 2022; Turlock Subbasin Groundwater Sustainability Plan, <https://turlockgroundwater.org/gsp>, accessed on July 12, 2022; Referral response received from Stanislaus Environmental Review Committee, dated March 21, 2022; Email received from Stanislaus County Department of Environmental Resources – Health Division, dated May 3, 2022; Referral response received from Turlock Irrigation District, dated March 16, 2022; Stanislaus County General Plan and Support Documentation.¹

XI. LAND USE AND PLANNING -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Physically divide an established community?			X	
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?			X	

Discussion: The project site is designated Agriculture by the Stanislaus County General Plan land use diagrams and zoned General Agriculture (A-2-40). The applicant is requesting to establish an agricultural service establishment on a 39.64± acre parcel, which requires obtaining a Tier Two Use Permit. The proposal includes installation of micronutrient mineral batching equipment consisting of loadout and receiving elevators, and conveyors within an existing 125,000± square-foot agricultural storage building, and three prefabricated steel receiving feed silo tanks for the purpose of mixing nutrients for incorporation into dairy feed. The project site is currently improved with two single-family dwellings, one of which was an unpermitted conversion from a barn, and a 125,000± square-foot agricultural storage building consisting of open floor area, and an unpermitted office area and restroom. Under the General Agriculture (A-2) zoning district, the project site is permitted to have up to two dwelling units and one junior accessory dwelling unit (JADU). The second dwelling unit can be either a single-family dwelling or an accessory dwelling unit (ADU). Conditions of approval will be added to the project requiring building permits for the unpermitted single-family dwelling, office, and restroom to be obtained from the Stanislaus County Building Permits Division prior to obtaining permits for the silos and proposed equipment.

To be considered a Tier Two use, the proposed use is required to be found related to agricultural production and necessary for a healthy agricultural economy. The County allows agriculture service establishments, including agriculture processing plants and facilities, by obtaining a Tier Two Use Permit if specific criteria can be met and if specific findings can be made. Those findings include that the establishment, as proposed, will not be substantially detrimental to, or in conflict with, the agricultural use of other properties in the vicinity; that the use is necessary and desirable for such establishment to be located within the agricultural area as opposed to areas zoned for commercial or industrial usage; and that it will not create a concentration of commercial and industrial uses in the vicinity. The facility will be owned, operated by, and serve a small group of dairymen and industry professionals within Stanislaus County, as well as dairies within surrounding counties, for the purpose of decreasing internal costs and to mix mineral blends to serve the needs of each individual dairy. Agricultural processing plants and facilities under a Tier Two Use Permit must also serve the immediately surrounding area, or local agriculture and customers, as opposed to having a widespread service area. There are limits to the number of employees that are involved in the operation under a Tier Two Use Permit; no more than 10 full-time employees, or 20 seasonal employees are permitted to be involved in the operation. In addition, the Planning Commission must find that the establishment, maintenance, and operation of the proposed use is consistent with the General Plan and will not be

detrimental to the health, safety, and general welfare of persons residing or working in the neighborhood of the use and that it will not be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.

The project site is currently enrolled in California Land Conservation Act ("Williamson Act") Contract No. 79-3677. County Code Section 21.20.045, in compliance with Government Code Section 51238.1, specifies that uses approved on contracted lands shall be consistent with three principles of compatibility. Those principles state that the proposed use shall not significantly compromise, displace, impair or remove current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in the A-2 zoning district. The project as proposed is considered a Tier Two use, which includes agricultural service establishments. Within the A-2 zoning district, the County has determined Tier Two uses shall be evaluated on a case-by-case basis by the Planning Commission and/or Board of Supervisors to determine whether they are consistent with the principles of compatibility set forth in Section 21.20.045 of the County Code. The request is not expected to perpetuate any significant conversion of farmland to non-agriculture use. No impacts to agriculture are anticipated to occur as a result of this project, as the project site is currently developed with residential and accessory structures and considered topographically flat. Based on the specific features and design of this project, it does not appear this project will impact the long-term productive agricultural capability of surrounding contracted lands in the A-2 zoning district. There is no indication this project will result in the removal of adjacent contracted land from agricultural use. During project review, this application was referred to the Department of Conservation (DOC) for review and input and no response has been received to date.

With the application of conditions of approval, there is no indication that, under the circumstances of this particular case, the proposed operation will be detrimental to the health, safety, and general welfare of persons residing or working in the neighborhood of the use or that it will be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.

Buffer and Setback Guidelines are applicable to new or expanding uses approved in or adjacent to the General Agriculture (A-2) zoning district, and are required to be designed to physically avoid conflicts between agricultural and non-agricultural uses. General Plan Amendment No. 2011-01 – *Revised Agricultural Buffers* was approved by the Board of Supervisors on December 20, 2011, to modify County requirements for buffers on agricultural projects. As this is a Tier Two use, if not considered people-intensive by the Planning Commission, the project is not subject to agricultural buffers. The proposed operation will be mostly automated within an existing building and will operate with a maximum of three employees, 8 a.m. to 5:00 p.m., seven days a week, year-round. Up to five truck trips and customer trips will occur daily, with the customers consisting of the ownership group who will pick up the mineral mix to be incorporated into dairy feed off-site. The project was referred to the Stanislaus County Agricultural Commissioner, and no comments have been received to date. Therefore, staff believes the project can be considered low people-intensive, thus not subject to the County's Agricultural Buffer requirements.

The project will not physically divide an established community nor conflict with any habitat conservation plans.

Mitigation: None.

References: Application information; Stanislaus County Zoning Ordinance (Title 21); Stanislaus County General Plan and Support Documentation.¹

XII. MINERAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X	
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?			X	

Discussion: The location of all commercially viable mineral resources in Stanislaus County has been mapped by the State Division of Mines and Geology in Special Report 173. There are no known significant resources on the site, nor is the project site located in a geological area known to produce resources.

Mitigation: None.

References: Application information; Stanislaus County General Plan and Support Documentation.¹

XIII. NOISE -- Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
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?			X	

Discussion: The proposed project shall comply with the noise standards included in the General Plan and Noise Control Ordinance. The area surrounding the project site consists of dairies, row crops, and scattered single-family dwellings in all directions, and a chicken ranch to the northwest. Stanislaus County General Plan identifies noise levels up to 75 dB Ldn (or CNEL) as the normally acceptable level of noise for industrial and agricultural uses. Additionally, agricultural activity is exempt from the Stanislaus County Noise Control Ordinance (Ord. CS 1070 §2, 2010). On-site grading and construction resulting from this project may result in a temporary increase in the area's ambient noise levels; however, noise impacts associated with on-site activities and traffic are not anticipated to exceed the normally acceptable level of noise. Moreover, proposed operating hours are year-round from 8 a.m. to 5 p.m. daily with the majority of operational activities for the micronutrient mineral batching equipment (consisting of loadout and receiving elevators, and conveyors) taking place indoors. The nearest sensitive noise receptor is a residence on a parcel located .26 miles to the northwest of the project site.

The site is not located within an airport land use plan. Noise impacts associated with the proposed project are considered to be less than significant.

Mitigation: None.

References: Application information; Stanislaus County Noise Control Ordinance (Title 10); Stanislaus County General Plan, Chapter IV – Noise Element, and Support Documentation.¹

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

Discussion: The site is not included in the vacant sites inventory for the 2016 Stanislaus County Housing Element, which covers the 5th cycle Regional Housing Needs Allocation (RHNA) for the County and will therefore not impact the County's ability to meet their RHNA. No population growth will be induced nor will any existing housing be displaced as a result of this project.

Mitigation: None.

References: Application information; Stanislaus County General Plan and Support Documentation.¹

XV. PUBLIC SERVICES --	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Would the project result in the substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:			X	
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?			X	

Discussion: The County has adopted Public Facilities Fees, as well as Fire Facility Fees on behalf of the appropriate fire district, to address impacts to public services. School Districts also have their own adopted fees. All facility fees are required to be paid at the time of building permit issuance.

A response was received from the Turlock Irrigation District (TID) for the project requiring any development that will impact electrical facilities to meet the District's standards. Additionally, the District has requested the applicant contact the District for any new electrical service and to notify the District's engineering division of any new load/equipment to be added to the existing panel serving the existing storage building. Any facility changes for any pole or electrical facility relocation will be at the developer's expense. The project receives irrigated water by a private irrigation well on-site for agricultural activities. No comments regarding irrigation or domestic water were received from TID. Any development that impacts irrigation facilities will be required to meet the District's requirements. Conditions of approval reflecting TID's comments will be added to the project.

The project was referred to Regional Water; however, no response was received to date.

The project was referred to the appropriate public service agencies, as well as the Stanislaus County Environmental Review Committee (ERC). The ERC provided a comment letter; however, no comments were received related to public facilities or services.

This project was circulated to all applicable school, fire, police, irrigation, and public works departments and districts during the Early Consultation referral period and no concerns were identified with regard to public services.

Mitigation: None.

References: Application information; Referral response received from Turlock Irrigation District, dated March 16, 2022; Referral response received from Stanislaus County Environmental Review Committee, dated March 21, 2022; Stanislaus County General Plan and Support Documentation.¹

XVI. RECREATION --	Potentially Significant Impact	Less Than Significant With Mitigation Included	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?			X	
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?			X	

Discussion: This project will not increase demands for recreational facilities, as such impacts typically are associated with residential development.

Mitigation: None.

References: Application information; Stanislaus County General Plan and Support Documentation.¹

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

Discussion: The project proposes to establish an agricultural service establishment which includes the installation of micronutrient mineral batching equipment consisting of loadout and receiving elevators, and conveyors within an existing 125,000± square-foot agricultural storage building, and construction of three prefabricated steel receiving feed silo tanks for the purpose of mixing nutrients for incorporation into dairy feed.

Potential impacts to transportation from the proposed project are also evaluated by Vehicle Miles Traveled (VMT). The calculation of VMT is the number of cars/trucks multiplied by the distance traveled by each car/truck. California Environment Quality Act (CEQA) Guidelines Section 15064.3, subdivision (a), defines VMT as the amount and distance of automobile travel attributable to a project. A technical advisory on evaluating transportation impacts in CEQA published by the Governor's Office of Planning and Research (OPR) in December of 2018 clarified the definition of automobiles as referring to on-road passenger vehicles, specifically cars and light trucks. While heavy trucks are not considered in the definition of automobiles for which VMT is calculated for, heavy-duty truck VMT could be included for modeling convenience. According to the same OPR technical advisory, many local agencies have developed a screening threshold of VMT to indicate when detailed analysis is needed. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less than significant transportation impact. The proposed project will generate a low amount of vehicle trips with five truck trips per-day, for a total of 10 heavy-truck trips (inbound and outbound trips for five trucks), and a maximum of six vehicle trips per-day (anticipated inbound and outbound trips by employees). As this is below the District's threshold of significance for vehicle and heavy truck trips, no significant impacts from vehicle and truck trips to transportation are anticipated.

The project will receive access via Hilmar Road, a County-maintained road identified as a 60-foot-wide Local Road. It is not anticipated that the project would substantially affect the level of service on Hilmar Road. The project was referred to Public Works, and a referral response was received requiring that the remaining 10 feet south of the centerline of Hilmar Road be dedicated as an Irrevocable Offer of Dedication (IOD). Public Works' comments will be added to the project as conditions of approval.

All development on-site will be required to pay applicable County public facility fees (PFF) fees, which will be utilized for maintenance and traffic congestion improvements to all County roadways.

The proposed project is not anticipated to conflict with any transportation program, plan, ordinance or policy.

Mitigation: None.

References: Application information; Governor's Office of Planning and Research Technical Advisory, December 2018; Referral response from Stanislaus County Public Works Department, dated April 25, 2022; Stanislaus County General Plan and Support Documentation.¹

XVIII. TRIBAL CULTURAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California native American tribe, and that is:			X	
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or			X	

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set for the in subdivision (c) of Public Resource Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			X	
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Discussion: It does not appear that this project will result in significant impacts to any archaeological or cultural resources. The project site consists of two single-family dwellings, one of which was an unpermitted conversion from a barn, and a 125,000± square-foot agricultural storage building consisting of open floor area, and an unpermitted office area and restroom. In accordance with SB 18 and AB 52, this project was not referred to the tribes listed with the Native American Heritage Commission (NAHC) as the project is not a General Plan Amendment and no tribes have requested consultation or project referral noticing. A condition of approval regarding the discovery of cultural resources during the construction process will be added to the project.

Mitigation: None.

References: Application information; Stanislaus County General Plan and Support Documentation.¹

XIX. UTILITIES AND SERVICE SYSTEMS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
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?			X	
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?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Discussion: Limitations on providing services have not been identified. The project proposes to utilize an existing private well and existing private septic facilities. The Department of Public Works provided a referral response stating that a grading, drainage, and erosion/sediment control plan for the project shall be submitted for any building permit that will create a larger or smaller building footprint. A Storm Water Pollution Prevention Plan (SWPPP) will be required for future construction prior to the approval of any grading permit. These comments will be applied as conditions of approval. There are no additional wells proposed as part of this request. If in the future the facility results in the formation of a new Public Water System, then

the project site will be subject to all applicable rules, regulations and standards as discussed above in the Hydrology and Water Quality Section of this document. A referral response received from DER requested that the applicant notify DER regarding any modifications of the on-site waste water treatment system (OWTS) and that the existing OWTS will be subject to further review if an increase in the number of users (people on-site) or drainage fixtures occurs. All applicable County Local Agency Management Program (LAMP) standards and required setbacks are to be met. DER's requirements will be added to the project as conditions of approval.

As discussed in Section X – Hydrology and Water Quality, DER confirmed that the private well on the project site does not currently meet the definition of a Public Water System as defined in California Health and Safety Code Section 116275(h). However, DER requested that the applicant contacts DER if the water system ever meets the definition of a public water system. If the existing well is ever required to become a Public Water System, the applicant will be subject to the process and regulations for a Public Water System as discussed in detail in Section X – Hydrology and Water Quality. These requirements will be added to the project as conditions of approval.

A response was received from the Turlock Irrigation District (TID) for the project requiring any development that will impact electrical facilities to meet the District's standards. Additionally, the District has requested the applicant contact the District for any new electrical service and to notify the District's engineering division of any new load/equipment to be added to the existing panel serving the existing storage building. Any facility changes for any pole or electrical facility relocation will be at the developer's expense. The project receives irrigated water by a private irrigation well on-site. No comments regarding irrigation or domestic water were received from TID. Any development that impacts irrigation facilities will be required to meet the District's requirements. Conditions of approval reflecting TID's comments will be added to the project.

The project was referred to Regional Water; however, no response was received to date.

The project is not anticipated to have a significant impact to utilities and service systems.

Mitigation: None.

References: Application information; Referral response received from Stanislaus County Department of Public Works, dated April 25, 2022; Referral response received from Stanislaus County Department of Environmental Resources – Health Division, dated March 21, 2022; Email response from Stanislaus County Department of Environmental Resources, dated May 3, 2021; Referral response received from Turlock Irrigation District, dated March 16, 2022; Stanislaus County General Plan and Support Documentation.¹

XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
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?			X	

c) Require the installation of 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?			X	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

Discussion: The Stanislaus County Local Hazard Mitigation Plan identifies risks posed by disasters and identifies ways to minimize damage from those disasters. The terrain of the site is relatively flat, and the site has access to a County-maintained road, Hilmar Road. The site is located in a Local Responsibility Area (LRA) for fire protection and is served by Mountain View Fire Protection District. The project was referred to the District, and no comments have been received to date. California Building and Fire Code establishes minimum standards for the protection of life and property by increasing the ability of a building to resist intrusion of flame and burning embers. Building permits for the silos, equipment, and unpermitted single-family dwelling, office and restroom will be required as conditions of approval for the project and will be reviewed by the County's Building Permits Division and Fire Prevention Bureau to ensure all State of California Building and Fire Code requirements are met prior to construction.

Wildfire risk and risks associated with postfire land changes are considered to be less than significant.

Mitigation: None.

References: Application information; Stanislaus County General Plan and Support Documentation.¹

XXI. MANDATORY FINDINGS OF SIGNIFICANCE --				
	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
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.)			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion: The 39.64± acre project site is designated Agriculture by the Stanislaus County General Plan land use diagrams and zoned General Agriculture (A-2-40). The property is primarily comprised of Waukena fine sandy loam (WbA), 0 to 1 percent slopes with a grade of 4 and index rating of 38, and Fresno sandy loam (FtA), 0 to 1 percent slopes with a

grade of 4 and index rating of 24; the project site is considered "Unique Farmland" by the California Department of Conservation's Farmland Mapping and Monitoring Program. The parcel is enrolled under Williamson Act Contract No. 79 3677. The requested use will not be located on one of the County's "most productive" agricultural areas, thus it is not considered Prime Farmland. The proposed project will not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

The proposed use is agricultural in nature and serves the agricultural community. The surrounding area is composed of dairies, row crops, and scattered single-family dwellings in all directions; a chicken ranch is to the northwest of the project site; the San Joaquin river is located 1.27± miles to the west; and the Stanislaus and Merced County border is located 1.2± miles to the southeast of the project site. Any development of the surrounding area would be subject to the permitted uses of the A-2 Zoning District or would require additional land use entitlements and environmental review.

Review of this project has not indicated any features which might significantly impact the environmental quality of the site and/or the surrounding area.

Mitigation: None.






References: Initial Study; Stanislaus County General Plan and Support Documentation.¹

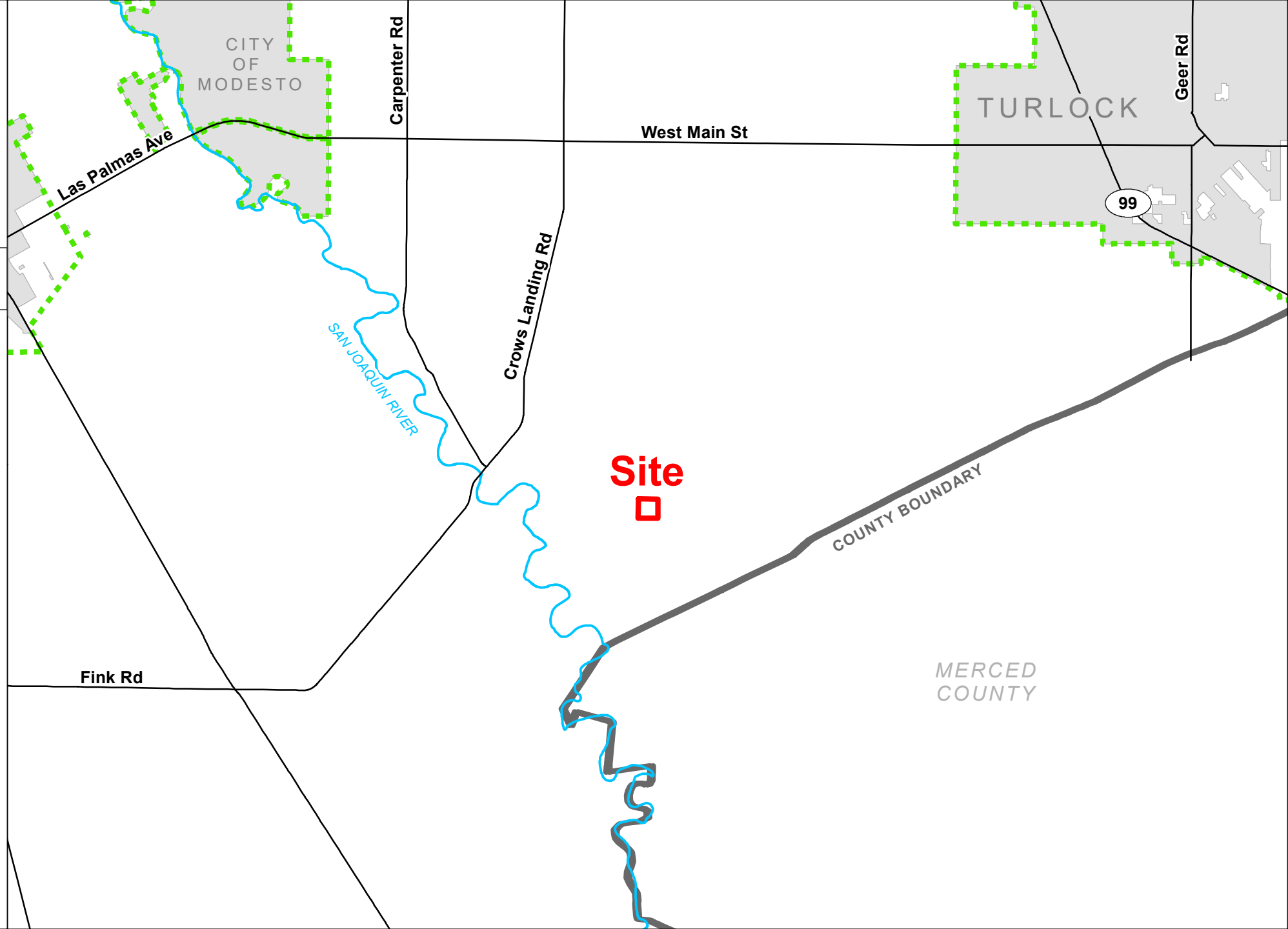
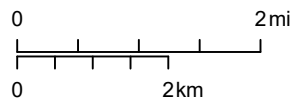
¹Stanislaus County General Plan and Support Documentation adopted in August 23, 2016, as amended. **Housing Element** adopted on April 5, 2016.

**FM
INGREDIENTS
UP
PLN2022-0003**

AREA MAP

LEGEND






-  Project Site
-  Sphere of Influence
-  City
-  Road
-  River

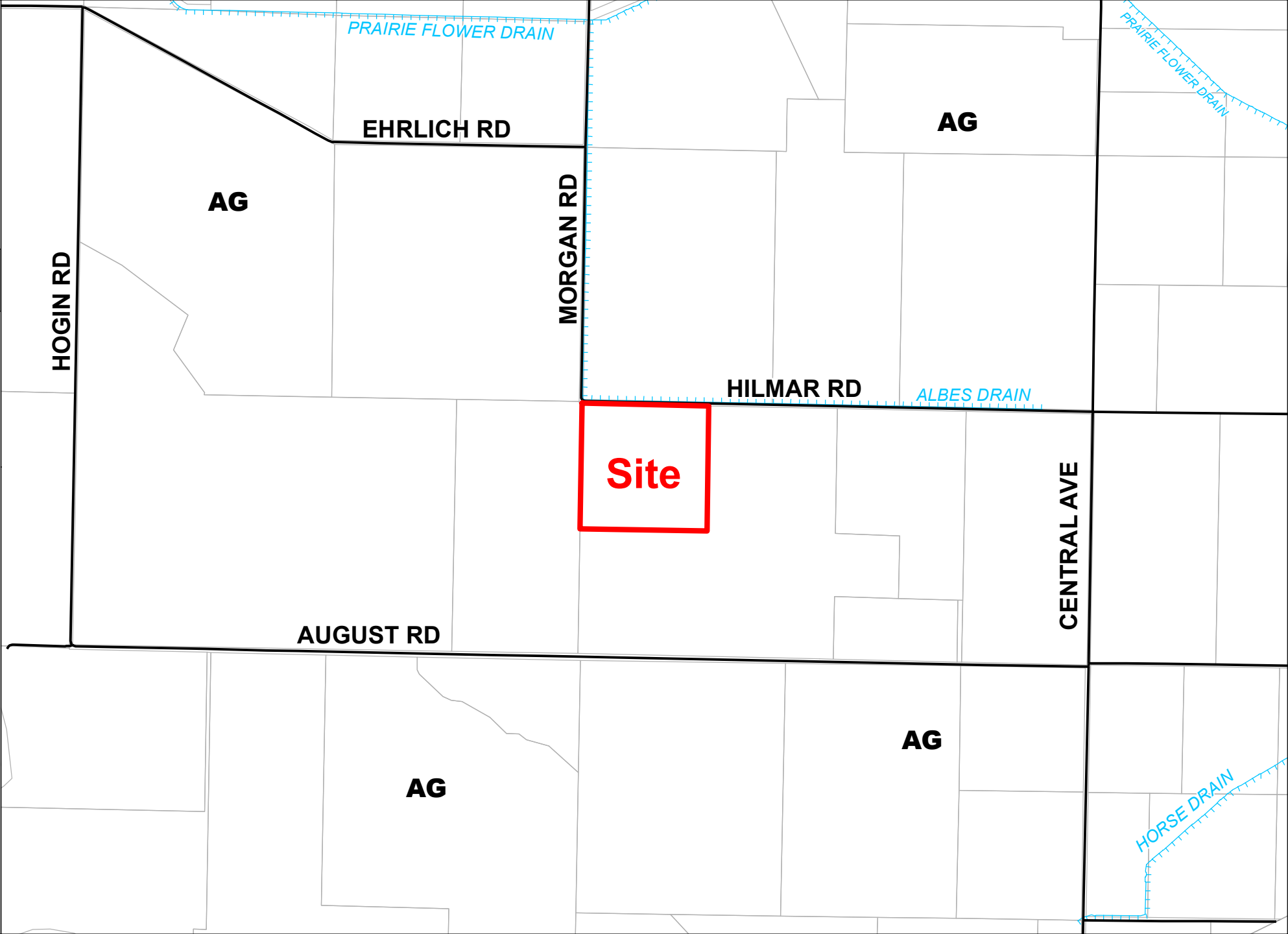
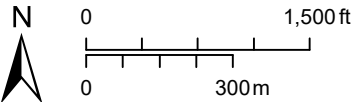


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INGREDIENTS
UP
PLN2022-0003

GENERAL PLAN MAP

LEGEND

-  Project Site
-  Parcel
-  Road
-  Canal
- General Plan**
-  Agriculture



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INGREDIENTS
UP
PLN2022-0003

ZONING MAP

LEGEND

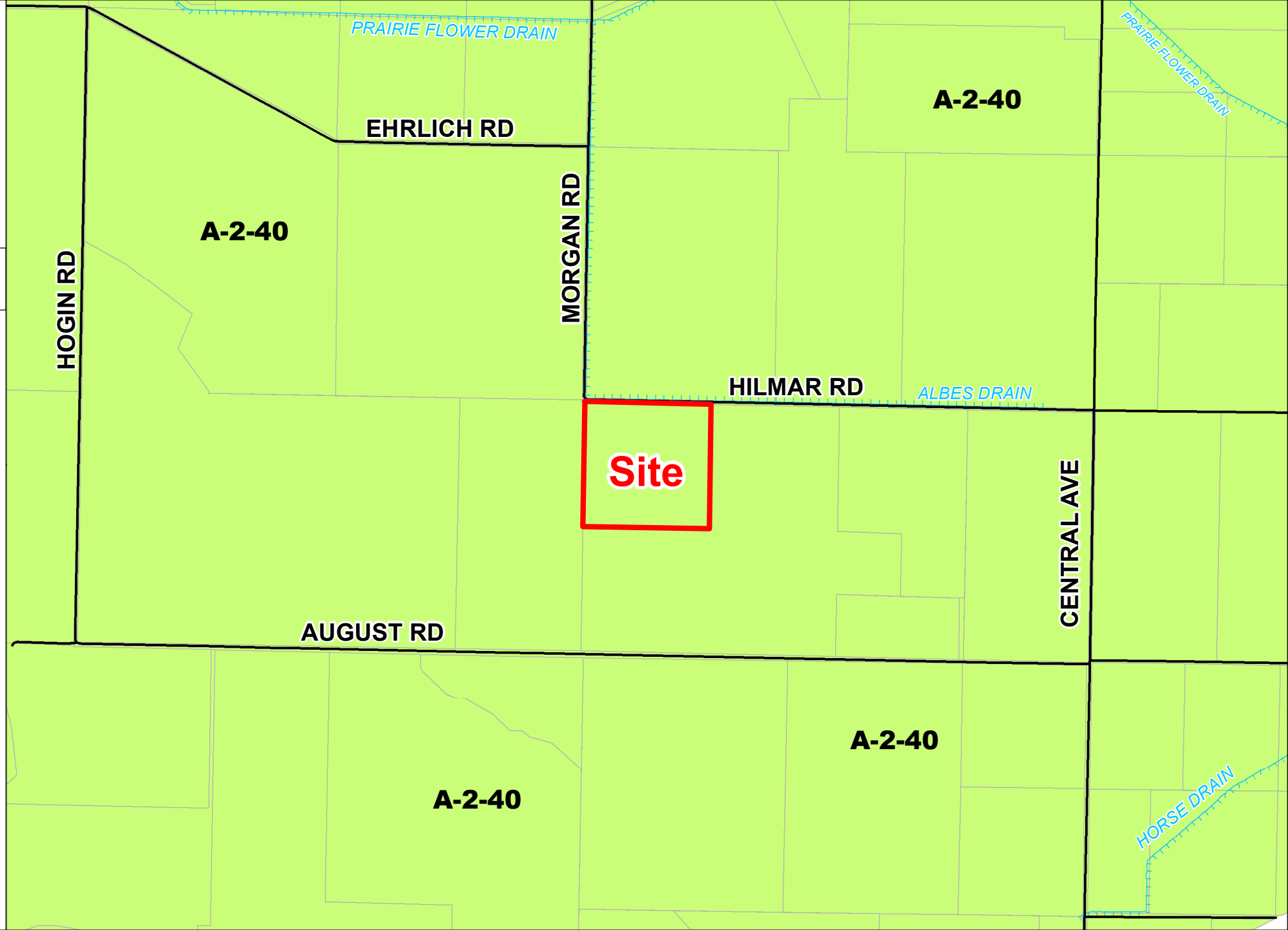
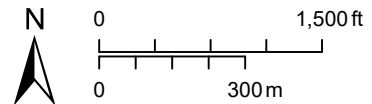
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 Parcel

 Road  Canal

Zoning Designation




 General Agriculture 40 Acre

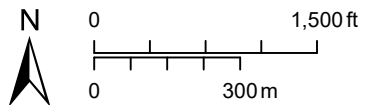


FM
INGREDIENTS
UP
PLN2022-0003

2021 AERIAL AREA MAP

LEGEND

-  Project Site
-  Road
-  Canal



FM
INGREDIENTS
UP
PLN2022-0003

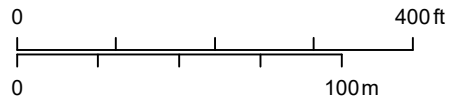
2021 AERIAL SITE MAP

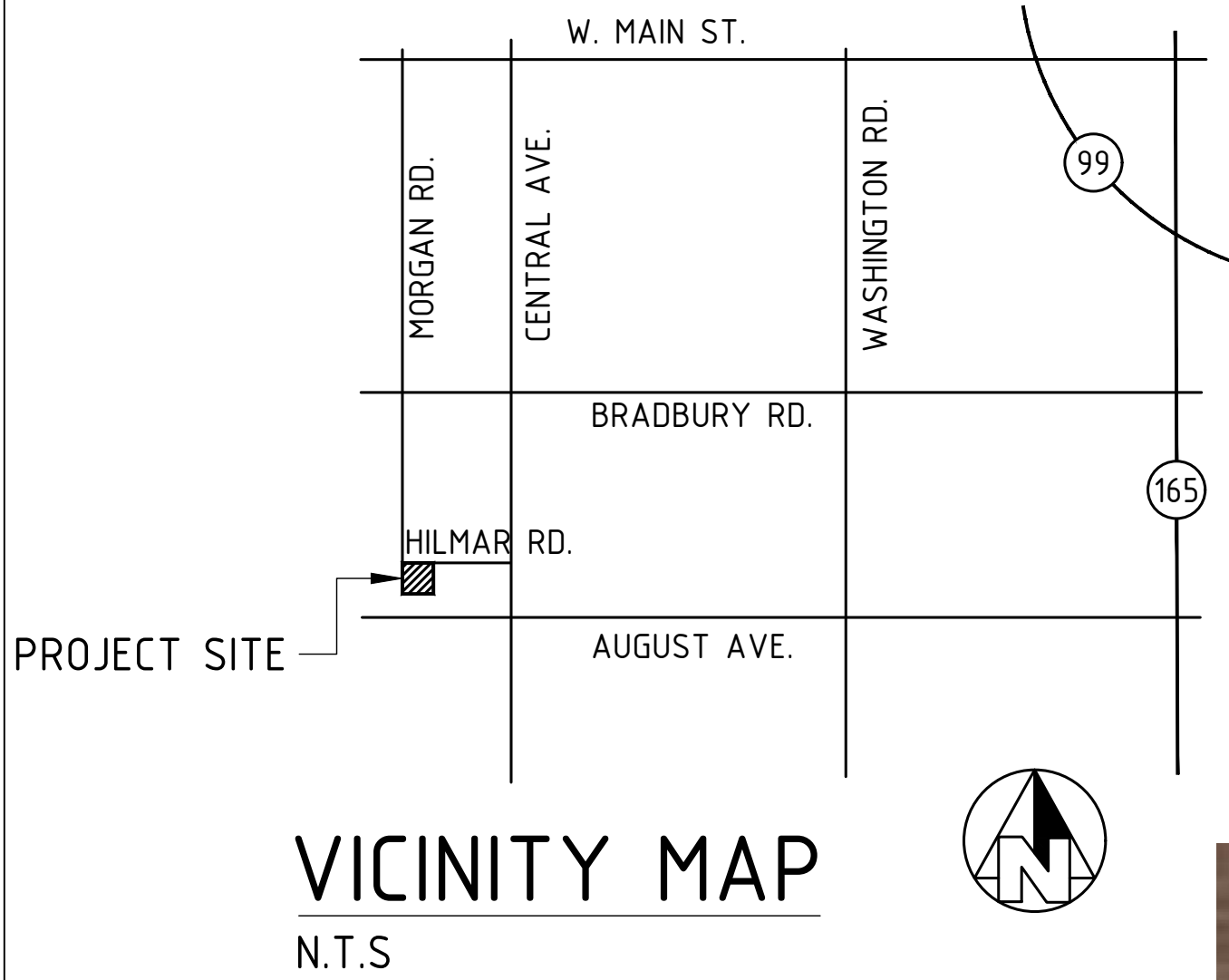
LEGEND

 Project Site

 Road

 Canal





BOUNDARY NOTE:
THE APPROXIMATE BOUNDARY INFORMATION SHOWN ON THESE PLANS IS
BASED UPON STANISLAUS COUNTY GIS DATA.

SITE PLAN NOTES:
1.) THIS DRAWING IS FOR EXHIBIT PURPOSES ONLY AND DOES NOT
REPRESENT ANY LEGAL SURVEY OF THE PROPERTY.
2.) ALL FEATURES ARE EXISTING UNLESS NOTED OTHERWISE AS PROPOSED.
3.) APPROXIMATE LOCATIONS ARE PRESENTED FOR UNDERGROUND AND
ABOVE GROUND FACILITIES,

CONSULTANT INFO


**LAMARRE
DESIGN**
Concept & Development Drawings
Industrial Drafting & Design

Darrin Lamarre Design
Industrial Drafting & Design Services

6116 Herndon Place, Stockton CA, 95219
Office: (209) 425-2848 Cell: (209) 648-8874
Email: darrin@lamarredesign.com

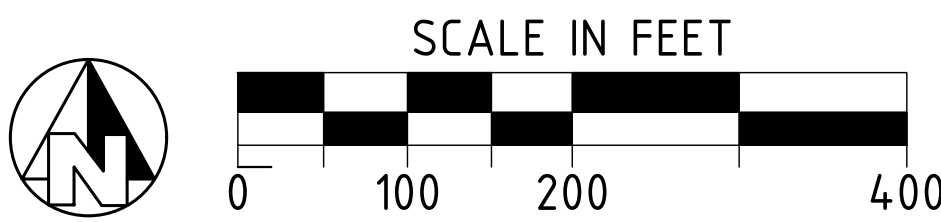
Facility Layouts & Site Plans
3D Modeling & Rendering

SITE DATA	
OWNER:	FM INGREDIENTS
JURISDICTION:	STANISLAUS COUNTY
ZONE:	AG (A-2-40)
SITE AREA:	39.64 ACRES
APN:	057-006-002
SITE ADDRESS:	10924 HILMAR ROAD TURLOCK, CA 95380
SEISMIC CAT:	D
WATER:	DOMESTIC WELL
SEWER:	SEPTIC
GAS:	PG&E
ELECTRIC:	TID

SHEET INDEX	
SHEET NO.	DESCRIPTION
A1	SITE PLAN AND VICINITY MAP
A2	ENLARGED EQUIPMENT VIEWS



SITE PLAN



APPROX. EDGE
OF FLOOD ZONE


**AXIOM
STRUCTURAL
DESIGN, INC**
167 S THOR STREET
TURLOCK, CA 95380
MICHAEL (209) 484-8840
ANDREW (209) 604-2898
WWW.AXIOMSD.COM



FM INGREDIENTS
MICRO AND MINERAL
INGREDIENT BLENDING SYSTEM

10924 HILMAR ROAD
TURLOCK, CA 95380

REVISIONS

AGENCY APPROVAL

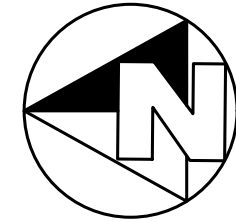
PERMIT NUMBER: -

SHEET TITLE

SITE PLAN & VACINITY
MAP

SHEET NO.

A1



CONSULTANT INFO

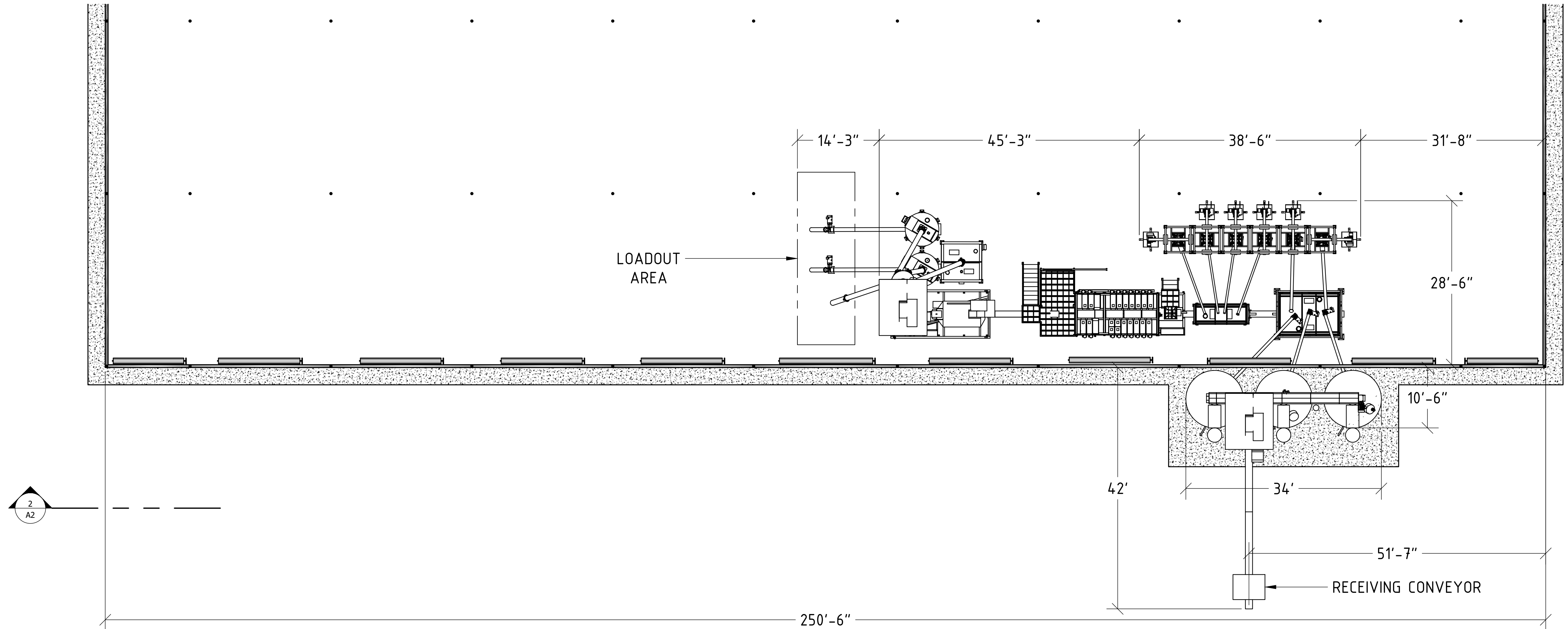


Darrin Lamarre Design
Industrial Drafting & Design Services
6116 Herndon Place, Stockton CA, 95219
Office: (209) 425-2848 Cell: (209) 648-8874
Email: darrin@lamarredesign.com
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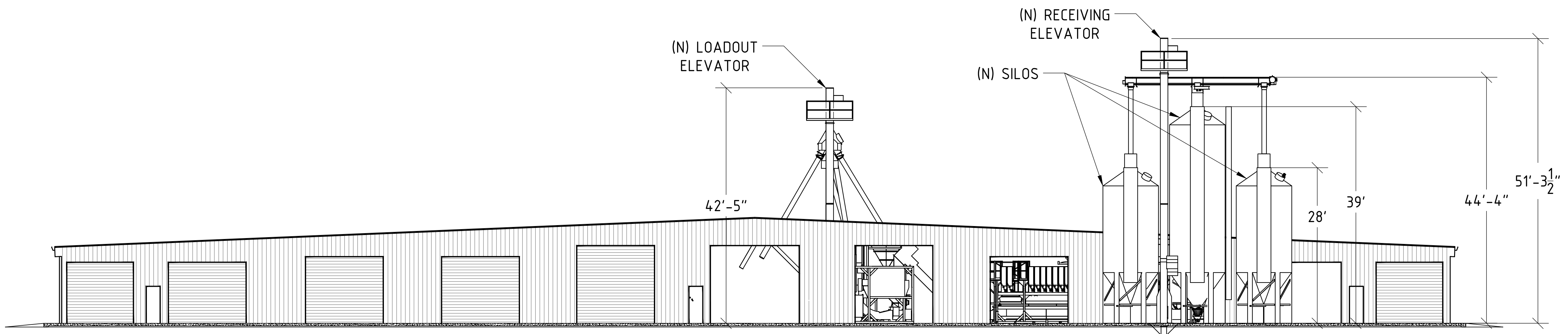
FM INGREDIENTS
MICRO AND MINERAL
INGREDIENT BLENDING SYSTEM

10924 HILMAR ROAD
TURLOCK, CA 95380



1 PLAN VIEW - NEW EQUIPMENT AREA

Scale: 3/32" = 1'-0"



2 ELEVATION VIEW - WEST BUILDING & EQUIPMENT

Scale: 3/32" = 1'-0"

REVISIONS

AGENCY APPROVAL

PERMIT NUMBER:

SHEET TITLE

ENLARGED EQUIP.
PLAN & ELEVATION

SHEET NO.

A2

F&R Ag Services, Inc.

**2857 Geer Road, Ste A
Turlock, CA 95382**

July 2022

Prepared by:



Office Locations:

Los Angeles, Orange County, Riverside, Ventura,
San Diego, Fresno, Berkeley, San Jose, Bakersfield

Tel: (949) 248-8490

Fax: (949) 248-8499

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**CEQA
Health Risk Assessment
FMI Ingredients**

CEQA Health Risk Assessment FM Ingredients

Prepared for:

**F&R Ag Services, Inc.
2857 Geer Road, Suite A
Turlock, CA 95382**

July 2022

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Health Risk Assessment

1.0 INTRODUCTION

F&R Ag Services, Inc. (F&R) is assisting FM Ingredients with the development of a small-scale mineral mixing plant for dairy cattle feed supplements. FM Ingredients is owned by a group of seven dairy farmers and three dairy nutritionists. The proposed mineral processing plant will supply product to the dairy ownership group and possibly other local dairy operations in the area. The primary goal for the FM Ingredients ownership group is to ensure quality mineral products and control costs for their respective dairy operations. The proposed facility will be located at 10924 Hilmar Road in Turlock, CA 95380 [Assessor's Parcel Number (APN) 057-006-002]. The project site is in Stanislaus County, which is within the jurisdiction of the SJVAPCD.

The facility is currently a non-operating bovine operation. The objective of the entitlement application is to repurpose the existing 125,000-square-foot dairy barn into a micro and mineral ingredient batching system capable of preparing mineral blends for dairy cattle feed rations. All processing equipment except for three prefabricated steel receiving feed silo tanks will be located within the existing structure. Other than the three prefabricated tanks, no new structures are proposed as part of the project. Thus, construction emissions would be de minimis.

The proposed facility will operate 7 days per week, 8 hours per day, and will have a maximum shift of two employees. Planned throughput will be 55 tons per day (14,300 tons annually). Limestone 50%, sodium bicarbonate 30%, and magnesium oxide 10%, will comprise 90% of total mass throughput. The process flow for bulk materials will involve five process steps and the process flow for trace minerals will involve two process steps. Finished products will be either loaded directly into truck trailers or into 2,000-pound totes for delivery to customers. A maximum of five (5) daily truck trips in and out of the facility is expected during normal operations.

Project operation involves truck transport of raw materials into and finished products out of the facility. In response to comments from the SJVAPCD, the Stanislaus County Planning & Community Development (Lead Agency) is requesting that a mobile source health risk assessment (HRA) be prepared for diesel truck engine exhaust.

2.0 EMISSIONS INFORMATION

The operating emissions analysis was prepared using the California Emissions Estimator Model® (CalEEMod) version 2020.4.0 (CAPCOA 2021), the official statewide land use computer model designed to provide a uniform platform for estimating potential criteria pollutant and greenhouse gas (GHG) emissions associated with operation of land use projects. The model quantifies direct emissions from construction and operation (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The mobile source emission factors used in the model include the Pavley standards and Low Carbon Fuel Standards. The model also identifies project design features, regulatory measures, and mitigation (control) measures to reduce criteria pollutant and GHG emissions, along with calculating the benefits achieved from the selected measures. For this study, CalEEMod was used to estimate operational mobile source emissions only, i.e., emissions from diesel truck engines.

A project involving transportation produces many types of emissions, but fine particulate matter (PM_{2.5}) in diesel engine exhaust is the pollutants of greatest concern due to its health risk effects. The use of diesel-powered trucks emits diesel particulate matter (DPM). Particulate matter less than 2.5 microns in size (PM_{2.5}) in exhaust emissions from the on-road vehicles (trucks) was assumed to be DPM. The total CalEEMod vehicle emissions were scaled to represent the localized off-site travel distance (radius) of 0.5 miles, i.e., 1 mile trip length. Table 2-1 presents the DPM emissions used in the HARP modeling.

Table 2-1: DPM Emissions

HARP Source ID	AERMOD Source ID	Source Description	DPM Annual Emissions (lb/yr)
1	1	Truck transport of Materials	0.08

3.0 HEALTH RISK ASSESSMENT

The California Environmental Quality Act (CEQA) requires that the environmental impacts of a proposed project be identified and assessed. If these impacts are found to be significant, the impacts must be mitigated to the extent feasible. The SJVAPCD has developed CEQA thresholds for determination of significance for HRAs in policy APR-1906 (SJVAPCD 2018) and *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI) (SJVAPCD 2015a).

The methodology used to develop the HRA is described below and based on SJVAPCD guidance documents and policies, in particular, *Guidance for Air Dispersion Modeling* (SJVAPCD 2006), SJVAPCD policy APR-1906, and consultation with SJVAPCD modeling staff.

This HRA examines the impacts from Project operations, comprised of truck transportation of raw materials into and finished products out of the facility.

3.1 Dispersion Modeling

3.1.1 Air Dispersion Model

Air dispersion models calculate the atmospheric transport and fate of pollutants from the emissions source. The models calculate the concentration of selected pollutants at specific downwind ground-level points, such as sensitive, residential, or off-site workplace receptors. The transformation (fate) of an airborne pollutant, its movement with the prevailing winds (transport), its crosswind and vertical movement due to atmospheric turbulence (dispersion), and its removal due to dry and wet deposition are influenced by the pollutant's physical and chemical properties and meteorological and environmental conditions. Factors, such as distance from the source to the receptor, meteorological conditions, intervening land use and terrain, pollutant release characteristics, and background pollutant concentrations, affect the predicted air concentration of an air pollutant. Air dispersion models take all of these factors into consideration when calculating downwind ground-level pollutant concentrations.

The air dispersion model used for this HRA is the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD). AERMOD is recommended by both the United States Environmental Protection Agency (U.S. EPA) and SJVAPCD for stationary source air dispersion modeling projects.

The Lakes Environmental Software implementation/user interface, AERMOD View™, Version 10.2.1, was used for this project. This version of AERMOD View™ implements Version 21112 of AERMOD.

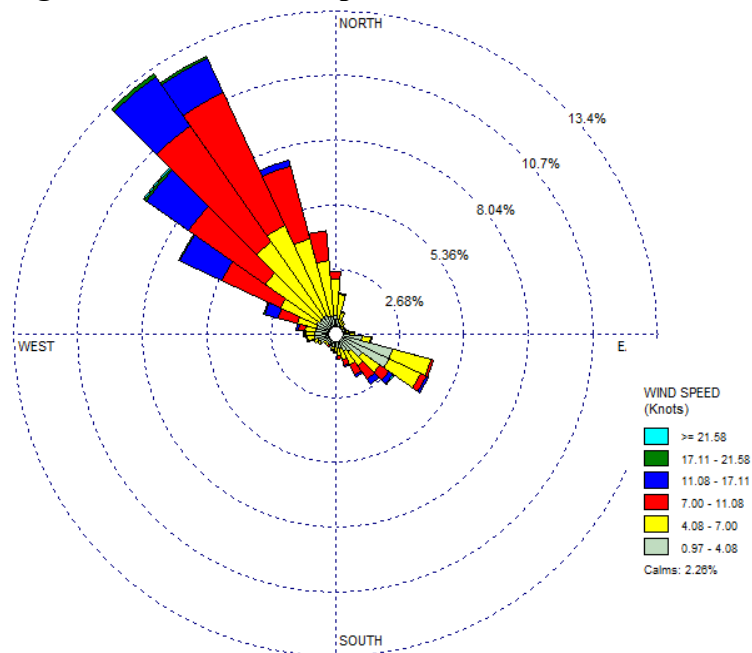
3.1.2 Modeling Options

AERMOD View™ allows the user to select from a variety of dispersion options. For this project, “Regulatory Default” options were used unless otherwise specified by the SJVAPCD guidance and noted below.

3.1.3 Meteorological Data

AERMOD-ready pre-processed meteorological data files were obtained directly from the SJVAPCD for the Modesto City-County Airport meteorological (met) station. This station is the nearest to the Project site and provides met data most representative of the conditions at the facility. Figure 3-1 presents the wind rose showing the meteorological data for the years 2013-2017. Each petal of the rose represents the frequency and relative strength with which a wind blows from that direction. In this case, the predominant wind direction is northwesterly, and the predominant wind speed is 7 to 11.08 knots (3.6 to 5.7 meters per second).

Figure 3-1: Modesto Airport Wind Rose 2013-2017



3.1.4 Receptor Grids and Modeling Domain

Satellite maps within AERMOD View™ were used for developing the property boundary and receptor grid. This program uses the World Geodetic System 1984 (WGS84) Datum for displaying Universal Transverse Mercator (UTM) coordinates. The facility is located in Zone 10.

The modeling domain was sufficiently large to include both the cancer risk and non-cancer risk Zone of Impact (ZOI). The ZOI for cancer risk is assumed to be all receptors within

the 1×10^{-6} (one in one million) cancer risk isopleth and each ZOI for non-cancer chronic risk is assumed to include all receptors within the 0.5 Hazard Index (HI) isopleths.

Modeling results were obtained at various locations around the facility. These receptor locations were identified as the facility boundary (“fenceline”), a grid network of receptors to establish the potential impact area, and discrete receptors that were positioned at specific locations of interest. All receptors were set to ground-level; the HRA did not include flagpole receptors.

The facility boundary encompasses the existing facility and the proposed Project expansion area. Per SJVAPCD guidance, a cascading grid of receptors was used to ensure that impacts will be below the appropriate CEQA thresholds at all locations off-site. These gridded receptors were located as follows:

- Fenceline receptors spaced every 25 meters;
- 50-meter spacing from the center of property out to 1,000 meters;
- 100-meter spacing from 1,000 to 1,500 meters; and
- 250-meter spacing from 1,500 to 3,000 meters.

Additional discrete Cartesian receptors were used to evaluate the locations of the closest residential receptors and off-site workplaces.

The nearest resident is a home located inside the fenceline of the facility. The second nearest resident is a home located 400 meters northwest of the facility’s fenceline. The third closest residences are 450 meters south of the facility’s fenceline. Additional residences were modeled but are all located over 500 meters from the facility’s fenceline.

The nearest sensitive receptors are in Turlock, northeast of the facility more than 5 miles (8 kilometers) away; thus, none are included in the HRA modeling. Other farms surround the facility and the closest structure where off-site workers may congregate is approximately 225 meters northwest of the facility.

Figure 3-2 shows the locations of all receptors used in the modeling and the property line.

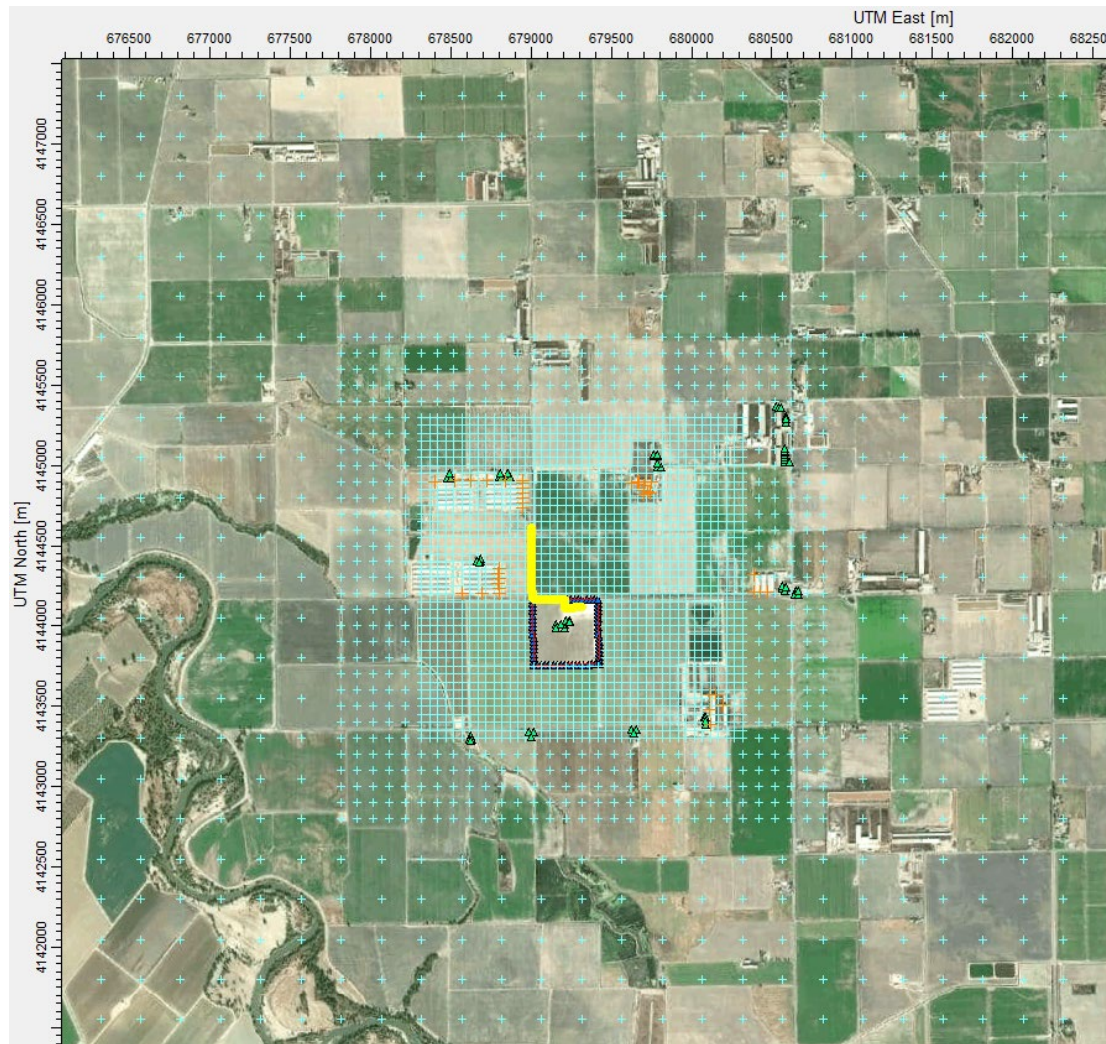
3.1.5 Terrain Options and Modeling Domain

The AERMOD runs used the regulatory default elevated terrain option. Terrain data was imported directly into AERMOD View™ using the WebGIS import feature. The terrain data was from the United States Geological Survey (USGS) Digital Elevation Model (DEM) and had a spatial resolution of approximately 30 meters. The terrain data files were processed by AERMOD View™ using AERMAP Version 18081 and elevations were assigned to receptors, buildings, and emissions sources accordingly.

3.1.6 Urban/Rural Dispersion

AERMOD allows for the use of urban or rural dispersion coefficients. The area within 3 kilometers of the Project is rural; therefore, the modeling used rural dispersion coefficients.

Figure 3-2: Source, Fenceline, and Receptor Locations



Dark Blue Triangles: Fenceline Receptors
Cyan Crosses: Uniform Receptor Grid
Green Circles: Residential Receptors
Orange Triangles: Worker Receptors
Yellow Line: Mobile Sources

3.1.7 Buildings

The modeling does not include building downwash because volume sources were used to represent the sources and AERMOD does not calculate downwash from these source types. Point sources (stacks, ducts) can utilize downwash calculations.

3.1.8 Deposition

Deposition was accounted for in the multi-pathway exposure assessment in the HRA, as necessary, but not in the air dispersion modeling. In addition, wet and dry pollutant depletion was not used.

3.1.9 Source Information and Release Parameters

AERMOD was run with a unit emission rate [1 gram per second (g/s)] for each source to calculate the concentration from each source per unit emission rate, known as X/Q (Chi/Q), for 1-hour and period (annual) averaging time options per receptor. The modeled X/Q concentration was calculated for each source, at each receptor, for each averaging time for input into the Hotspots Analysis and Reporting Program, version 2 (HARP2).

3.1.9.1 Truck Transportation

Pollutant producing activities include truck transportation of materials. Figure 3-2 shows the locations of the line-volume sources (roadways) included in the HRA modeling. The release parameters utilized for each source were provided by the Applicant or derived from SJVAPCD guidance.

3.2 Health Risk Assessment

The HRA followed the SJVAPCD Policy 1906 (SJVAPCD 2018) Tier 2 refined project modeling techniques, which are based on the Office of Environmental Health Hazard Assessment (OEHHA) Tier 1 technique (OEHHA 2015, SJVAPCD 2015b), with the exceptions noted in the following sections.

AERMOD was run with all sources emitting unit emissions (1 g/s) to obtain the X/Q values that are necessary for input into HARP2. The health risk calculations were performed using the HARP2 Air Dispersion Modeling and Risk Tool (ADMRT), version 22118. The X/Q values that were determined for each source using AERMOD were imported into HARP2 and used in conjunction with hourly and annual emissions to determine the ground level concentrations (GLC) for each pollutant. The GLCs were then used to estimate the long-term cancer health risk to an individual and non-cancer chronic index. No acute health risks were calculated because DPM does not have acute toxicity factors.

The Point of Maximum Impact (PMI), Maximally Exposed Individual Resident (MEIR), and Maximally Exposed Individual Worker (MEIW) were calculated for cancer risk and non-cancer chronic health index. The PMI is a location within the modeling grid where the model calculates the highest (worst-case) health risk. The PMI may or may not be a habitable location. A description of the health risk indices and associated calculations conducted in HARP2 is provided below. Table 3-1 provides a listing of the HARP2 options that were selected for the analysis.

3.2.1 HARP Parameters and Exposure Pathways

Because the HRA only examines impacts from DPM, a multi-pathway assessment is not necessary.

Table 3-1 also outlines the parameters used in the health risk calculations for the different receptor types. The grid, residential, and sensitive receptors will all be evaluated as residential in HARP2.

Table 3-1: HARP2 Model Options

Parameter	Assumptions				Comments
Multi-Pathway					
Inhalation	Res	<input checked="" type="checkbox"/>	Work	<input checked="" type="checkbox"/>	—
Deposition Velocity	0.02 m/s				Per SJVAPCD APR-1906
Residential Cancer Risk Assumptions					
Exposure Duration	70 years				—
Fraction of Time at Home	Third Trimester to 16 years: Off 16 years to 30 years: Off				Per SJVAPCD guidance
Inhalation Rate Basis	Long-term 24-hour				Per SJVAPCD guidance
Analysis Option	OEHHA Derived Method				—
Worker Cancer Risk Assumptions					
Exposure Duration	40 years				—
Analysis Option	OEHHA Derived Method				—
Inhalation Rate Basis	Moderate 8-hour				—
Worker Adjustment Factor	3				8 hours/day, 7 days/week
Residential and Worker Non-Cancer Risk Assumptions					
Analysis Option	OEHHA Derived Method				—
Inhalation Rate Basis	Long-term 24-hour (resident) Moderate 8-hour (worker)				—
Worker Adjustment Factor	3				8 hours/day, 7 days/week

3.2.2 Cancer Risk

Cancer risk is the estimated probability of a maximally exposed individual potentially contracting cancer as a result of exposure to toxic air contaminants (TACs) over a period of time. Per SJVAPCD Policy 1906 and HRA guidance, this HRA estimated cancer risk over a 70-year lifetime for residential and grid receptor locations, and 40 years for off-site worker receptor locations.

Based on the SJVAPCD's recommendations, the OEHHA Derived calculation method was used to estimate all cancer risks at residential/sensitive/grid and off-site worker receptors. The "OEHHA Derived" method uses high-end exposure parameters for the top two exposure pathways and mean exposure parameters for the remaining pathways for cancer risk estimates.

3.2.3 Chronic Hazard Index

Some TACs may have non-cancer health risk due to a long-term (chronic) exposure. The Chronic Hazard Index (HIC) is the sum of the individual substance HICs for all TACs affecting the same target organ system. Chronic risk was calculated using the OEHHA Derived Method at all off-site receptors for an annual exposure duration. This analysis used the exposure pathways outlined in Table 3-1.

Because DPM does not have an 8-hour chronic reference exposure level (REL), no 8-hour chronic risks were estimated.

3.2.4 Acute Hazard Risk

Some TACs may have non-cancer health risk due to short-term (acute) exposures. Acute Hazard Index (HIA) is the sum of the individual substance HIAs for all TACs affecting the same target organ system.

Because DPM does not have an acute REL, no acute risks were estimated.

3.3 HRA Results

Table 3-2 presents a summary of the operational HRA results at the MEIR and MEIW. Figure 3-3 shows the 70-year cancer risk isopleths and the location of the MEIR. Figure 3-4 shows the 40-year worker cancer risk isopleths and the location of the MEIW. Appendix A presents more detailed tables of the HARP2 modeling results for each health risk at each receptor type, broken down by source.

The results show that the cancer risk at all actual receptor locations was predicted to be below the SJVAPCD significance threshold and the HIC was well below the non-cancer thresholds at all locations. The cancer risk PMI occurs at a bend in the road directly north of the facility in a location where no one is expected to congregate for any duration, let alone 70-years. The cancer and chronic MEIR were predicted to occur at the nearest resident, located inside the fenceline of the facility. The cancer and chronic MEIW were predicted to occur at the nearest off-site worker, located northwest of the facility.

Table 3-2: Health Risk Assessment Results

Health Risk	MEIR	MEIW	SJVAPCD CEQA Threshold
Cancer Risk (In One Million)	0.060	0.011	20
HIC	0.000012	0.000005	1

Notes:

- Cancer risk is based on a 70-year exposure for PMI, MEIR, and sensitive receptors and a 40-year exposure for the MEIW.
- The chronic hazard index was estimated on an annual basis.
- There are no sensitive receptors close to the facility.

The HRA predicted that the Project health risks were well below the CEQA thresholds, thus the Project would not expose sensitive receptors to substantial pollutant concentrations and would have a less than significant impact on air quality and human health.

PROJECTED IMPACT: Less Than Significant (LTS)

Figure 3-3: 70-Year Cancer Risk Isopleths and Location of the MEIR

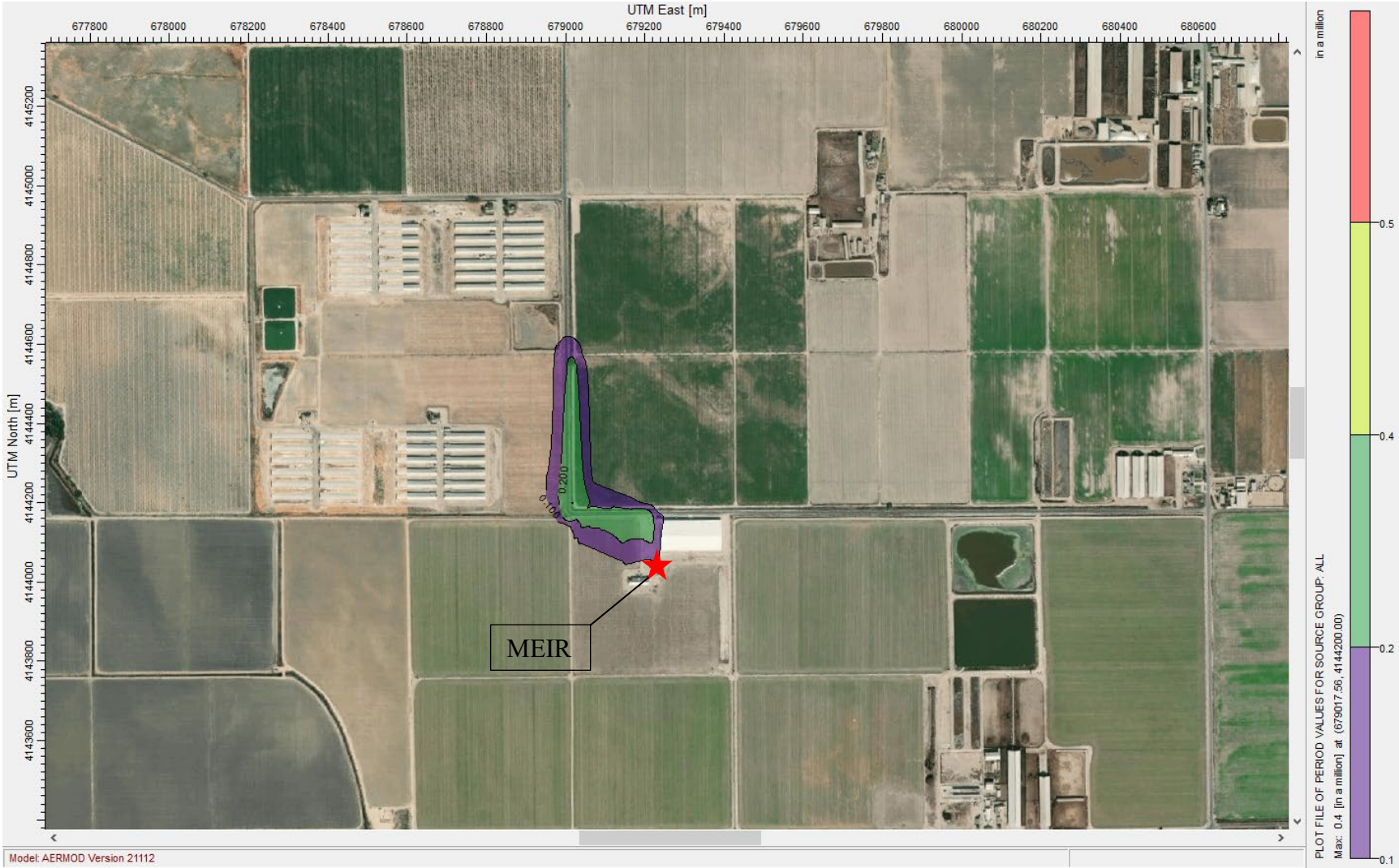
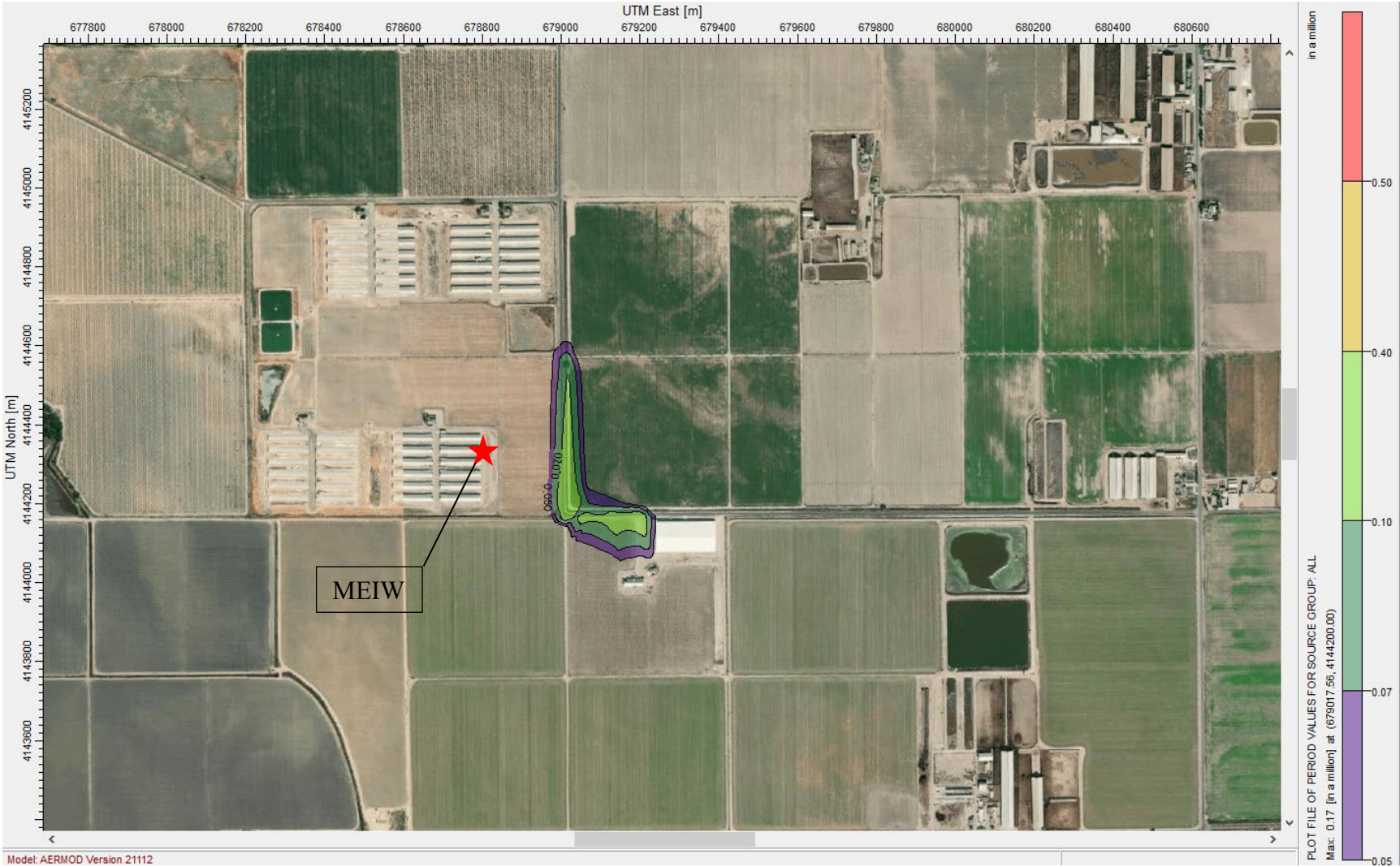


Figure 3-4: 40-Year Worker Cancer Risk Isopleths and Location of the MEIW



4.0 REFERENCES

California Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments. Website (<http://oehha.ca.gov/air/crnrr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>) accessed July 6, 2022.

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San Joaquin Valley Air Pollution Control District (SJVAPCD). 2006. Guidance for Air Dispersion Modeling. August 2006, Rev 1.2. Website (http://www.valleyair.org/busind/pto/tox_resources/Modeling%20Guidance.pdf) accessed July 6, 2022.

APPENDIX A – HRA RESULTS

**Maximum Cancer Risk by Pollutant at PMI, MEIR, and MEIW
FM Ingredients CEQA Mobile Source HRA**

Pollutant CAS	Pollutant	Point of Maximum Impact (PMI)		Maximally Exposed Individual Resident (MEIR)		Maximally Exposed Individual Worker (MEIW)	
		receptor #	689	receptor #	6	receptor #	71
		UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
		679018	4144200	679242	4144037	678798	4144329
		70-Year Cancer Risk	Contribution (%)	70-Year Cancer Risk	Contribution (%)	40-Year Cancer Risk	Contribution (%)
-	ALL	4.03E-07	100%	6.04E-08	100%	1.09E-08	100%
9901	DieselExhPM	4.03E-07	100.00%	6.04E-08	100.00%	1.09E-08	100.00%

**Cancer Risk by Source for All Pollutants Combined at PMI, MEIR, and MEIW
FM Ingredients CEQA Mobile Source HRA**

Sources	Source Description	Point of Maximum Impact (PMI)		Maximally Exposed Individual Resident (MEIR)		Maximally Exposed Individual Worker (MEIW)	
		receptor #	689	receptor #	6	receptor #	71
		UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
		679018	4144200	679242	4144037	678798	4144329
		70-Year Cancer Risk	Contribution (%)	70-Year Cancer Risk	Contribution (%)	40-Year Cancer Risk	Contribution (%)
ALL	ALL	4.03E-07	100%	6.04E-08	100%	1.09E-08	100%
1	Truck Emissions	4.03E-07	100.00%	6.04E-08	100.00%	1.09E-08	100.00%



**Maximum Chronic Hazard Index by Pollutant at PMI, MEIR, and MEIW
FM Ingredients CEQA Mobile Source HRA**

Pollutant CAS	Pollutant	Point of Maximum Impact (PMI)		Maximally Exposed Individual Resident (MEIR)		Maximally Exposed Individual Worker (MEIW)	
		receptor #	689	receptor #	6	receptor #	71
		UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
		679018	4144200	679242	4144037	678798	4144329
		Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)
-	ALL	7.67E-05	100%	1.15E-05	100%	5.05E-06	100%
9901	DieselExhPM	7.67E-05	100.00%	1.15E-05	100.00%	5.05E-06	100.00%

**Chronic Hazard Index by Source for All Pollutants Combined at PMI, MEIR, and MEIW
FM Ingredients CEQA Mobile Source HRA**

Sources	Source Description	Point of Maximum Impact (PMI)		Maximally Exposed Individual Resident (MEIR)		Maximally Exposed Individual Worker (MEIW)		Maximally Exposed Individual Worker (MEIW)	
		receptor #	689	receptor #	6	receptor #	71	receptor #	104
		UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
		679018	4144200	679242	4144037	678798	4144329	682186	4144199
		Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)	Chronic 8-hr Hazard Index	Contribution (%)
ALL	ALL	7.67E-05	100%	1.15E-05	100%	5.05E-06	100%	0.00E+00	100%
1	Truck Emissions	7.67E-05	100.00%	1.15E-05	100.00%	5.05E-06	100.00%	0.00E+00	N/A

APPENDIX B – RECEPTORS

**FM Ingredients CEQA Health Risk Assessment
Sensitive, Residential, and Worker Receptors**

No.	UTM Northing (m)	UTM Easting (m)	Elevation (m)	Hill Height (m)	Group	Name/Location
1	679,159.16	4,144,007.64	19.00	19.00	Residential	On-Site
2	679,207.68	4,144,008.90	19.00	19.00	Residential	On-Site
3	679,159.36	4,143,990.86	19.00	19.00	Residential	On-Site
4	679,208.36	4,143,991.20	19.00	19.00	Residential	On-Site
5	679,221.30	4,144,030.68	19.00	19.00	Residential	On-Site
6	679,242.05	4,144,037.48	19.00	19.00	Residential	On-Site
7	679,239.33	4,144,023.19	19.00	19.00	Residential	On-Site
8	678,684.84	4,144,402.94	19.00	19.00	Residential	Morgan Road
9	678,685.08	4,144,419.90	19.00	19.00	Residential	Morgan Road
10	678,661.73	4,144,403.92	19.00	19.00	Residential	Morgan Road
11	678,628.48	4,143,320.90	19.00	19.00	Residential	August Road
12	678,621.18	4,143,320.04	19.00	19.00	Residential	August Road
13	678,634.56	4,143,297.67	19.00	19.00	Residential	August Road
14	678,616.16	4,143,296.00	19.00	19.00	Residential	August Road
15	678,626.62	4,143,284.29	19.00	19.00	Residential	August Road
16	679,014.32	4,143,341.86	19.00	19.00	Residential	August Road
17	678,986.58	4,143,340.01	19.00	19.00	Residential	August Road
18	679,000.07	4,143,313.34	19.00	19.00	Residential	August Road
19	679,658.13	4,143,354.38	19.00	19.00	Residential	August Road
20	679,629.88	4,143,355.00	19.00	19.00	Residential	August Road
21	679,644.53	4,143,329.27	19.00	19.00	Residential	August Road
22	680,082.02	4,143,429.72	19.00	19.00	Residential	August Road
23	680,092.36	4,143,430.70	19.00	19.00	Residential	August Road
24	680,089.16	4,143,388.38	19.00	19.00	Residential	August Road
25	680,088.17	4,143,408.07	19.00	19.00	Residential	August Road
26	680,568.70	4,144,230.51	19.00	19.00	Residential	Central Avenue
27	680,569.44	4,144,249.95	19.00	19.00	Residential	Central Avenue
28	680,578.79	4,144,220.42	19.00	19.00	Residential	Central Avenue
29	680,588.88	4,144,241.09	19.00	19.00	Residential	Central Avenue
30	680,651.13	4,144,220.67	19.00	19.00	Residential	Central Avenue
31	680,644.24	4,144,194.34	19.00	19.00	Residential	Central Avenue
32	680,667.37	4,144,196.55	19.00	19.00	Residential	Central Avenue
33	680,665.65	4,144,217.96	19.00	19.00	Residential	Central Avenue
34	678,799.76	4,144,925.55	19.00	19.00	Residential	Ehrlich Avenue
35	678,819.40	4,144,925.25	19.00	19.00	Residential	Ehrlich Avenue
36	678,850.23	4,144,925.85	19.00	19.00	Residential	Ehrlich Avenue
37	678,869.43	4,144,924.94	19.00	19.00	Residential	Ehrlich Avenue
38	678,808.83	4,144,948.82	19.00	19.00	Residential	Ehrlich Avenue
39	678,858.70	4,144,948.67	19.00	19.00	Residential	Ehrlich Avenue
40	678,675.71	4,144,394.84	19.00	19.00	Residential	Morgan Road
41	679,791.00	4,144,987.56	19.12	19.12	Residential	Morgan Road
42	679,808.67	4,144,986.98	19.11	19.11	Residential	Morgan Road
43	679,788.10	4,145,009.87	19.36	19.36	Residential	Morgan Road
44	679,764.05	4,145,055.94	19.87	19.87	Residential	Morgan Road
45	679,784.71	4,145,056.56	19.87	19.87	Residential	Morgan Road
46	679,762.79	4,145,068.63	20.00	20.00	Residential	Morgan Road
47	679,785.45	4,145,069.86	20.00	20.00	Residential	Central Avenue
48	680,589.51	4,145,266.14	20.00	20.00	Residential	Central Avenue
49	680,589.51	4,145,306.71	20.00	20.00	Residential	Central Avenue
50	680,529.52	4,145,365.83	20.00	20.00	Residential	Central Avenue

**FM Ingredients CEQA Health Risk Assessment
Sensitive, Residential, and Worker Receptors**

No.	UTM Northing (m)	UTM Easting (m)	Elevation (m)	Hill Height (m)	Group	Name/Location
51	680,539.66	4,145,356.56	20.00	20.00	Residential	Central Avenue
52	680,559.66	4,145,356.56	20.00	20.00	Residential	Central Avenue
53	680,589.13	4,145,287.93	20.00	20.00	Residential	Central Avenue
54	678,481.23	4,144,922.07	19.00	19.00	Residential	Ehrlich Avenue
55	678,502.06	4,144,922.20	19.00	19.00	Residential	Ehrlich Avenue
56	678,490.87	4,144,948.18	19.00	19.00	Residential	Ehrlich Avenue
57	680,583.05	4,145,016.61	20.00	20.00	Residential	Central Avenue
58	680,583.35	4,145,038.40	20.00	20.00	Residential	Central Avenue
59	680,581.57	4,145,054.27	20.00	20.00	Residential	Central Avenue
60	680,580.80	4,145,065.21	20.00	20.00	Residential	Central Avenue
61	680,581.57	4,145,079.10	20.00	20.00	Residential	Central Avenue
62	680,581.57	4,145,091.06	20.00	20.00	Residential	Central Avenue
63	680,581.19	4,145,101.22	20.00	20.00	Residential	Central Avenue
64	680,611.67	4,145,016.84	20.00	20.00	Residential	Central Avenue
65	679,186.16	4,144,009.16	19.00	19.00	Residential	On-Site
66	678,798.40	4,144,206.03	19.00	19.00	Worker	Morgan Foster Farms
67	678,798.36	4,144,237.02	19.00	19.00	Worker	Morgan Foster Farms
68	678,693.93	4,144,205.36	19.00	19.00	Worker	Morgan Foster Farms
69	678,797.25	4,144,267.58	19.00	19.00	Worker	Morgan Foster Farms
70	678,798.92	4,144,297.57	19.00	19.00	Worker	Morgan Foster Farms
71	678,797.81	4,144,328.68	19.00	19.00	Worker	Morgan Foster Farms
72	678,798.92	4,144,358.13	19.00	19.00	Worker	Morgan Foster Farms
73	678,572.83	4,144,205.91	19.00	19.00	Worker	Morgan Foster Farms
74	678,949.17	4,144,737.03	19.00	19.00	Worker	Morgan Foster Farms
75	678,948.62	4,144,767.59	19.00	19.00	Worker	Morgan Foster Farms
76	678,948.06	4,144,798.15	19.00	19.00	Worker	Morgan Foster Farms
77	678,948.06	4,144,828.70	19.00	19.00	Worker	Morgan Foster Farms
78	678,948.06	4,144,859.26	19.00	19.00	Worker	Morgan Foster Farms
79	678,945.84	4,144,889.81	19.00	19.00	Worker	Morgan Foster Farms
80	678,945.28	4,144,904.81	19.00	19.00	Worker	Morgan Foster Farms
81	678,842.50	4,144,904.26	19.00	19.00	Worker	Morgan Foster Farms
82	678,721.94	4,144,903.70	19.00	19.00	Worker	Morgan Foster Farms
83	678,627.50	4,144,902.04	19.00	19.00	Worker	Morgan Foster Farms
84	678,526.94	4,144,902.04	19.00	19.00	Worker	Morgan Foster Farms
85	678,403.91	4,144,899.57	19.00	19.00	Worker	Morgan Foster Farms
86	680,115.33	4,143,574.03	19.00	19.00	Worker	August Road
87	680,147.44	4,143,572.62	19.00	19.00	Worker	August Road
88	680,194.20	4,143,508.38	19.00	19.00	Worker	August Road
89	680,114.38	4,143,482.41	19.00	19.00	Worker	August Road
90	680,117.22	4,143,383.22	19.00	19.00	Worker	August Road
91	680,391.18	4,144,212.58	19.00	19.00	Worker	Double Cross Dairy
92	680,430.86	4,144,212.58	19.00	19.00	Worker	Double Cross Dairy
93	680,470.06	4,144,213.99	19.00	19.00	Worker	Double Cross Dairy
94	680,389.29	4,144,316.02	19.00	19.00	Worker	Double Cross Dairy
95	679,675.61	4,144,894.59	19.00	19.00	Worker	S Morgan Road
96	679,627.02	4,144,892.98	19.00	19.00	Worker	S Morgan Road
97	679,661.15	4,144,893.38	19.00	19.00	Worker	S Morgan Road
98	679,714.56	4,144,895.39	19.00	19.00	Worker	S Morgan Road
99	679,749.10	4,144,895.79	19.00	19.00	Worker	S Morgan Road
100	679,706.53	4,144,816.68	19.00	19.00	Worker	S Morgan Road

**FM Ingredients CEQA Health Risk Assessment
Sensitive, Residential, and Worker Receptors**

No.	UTM Northing (m)	UTM Easting (m)	Elevation (m)	Hill Height (m)	Group	Name/Location
101	679,701.31	4,144,874.91	19.00	19.00	Worker	S Morgan Road
102	679,702.91	4,144,846.40	19.00	19.00	Worker	S Morgan Road
103	679,725.00	4,144,833.14	19.00	19.00	Worker	S Morgan Road
104	679,743.88	4,144,829.13	19.00	19.00	Worker	S Morgan Road

APPENDIX C – CALEEMOD OUTPUTS

Annual

Summer

Winter

FM Ingredients - San Joaquin Valley Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**FM Ingredients****San Joaquin Valley Air Basin, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2023
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MWhr)	607.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - truck loading/unloadin zone 50 ft x20 ft to get a trip rate of 5 trucks per day (5 trips/1k sq ft = 5)

Construction Phase -

Off-road Equipment - Operations only

Vehicle Trips - only the first mile for C-C trips

Fleet Mix - 50-50 MHD and HHD

Consumer Products - Trucks only

Area Coating - trucks only

Landscape Equipment - trucks only

Energy Use - trucks only

Water And Wastewater - trucks only

Solid Waste - trucks only

FM Ingredients - San Joaquin Valley Air Basin, Annual

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

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	500	0
tblAreaCoating	Area_Nonresidential_Interior	1500	0
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	2.70	0.00
tblEnergyUse	NT24E	4.16	0.00
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24E	1.75	0.00
tblEnergyUse	T24NG	16.86	0.00
tblFleetMix	HHD	0.03	0.50
tblFleetMix	LDA	0.51	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.8800e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.17	0.00
tblFleetMix	MH	3.7190e-003	0.00
tblFleetMix	MHD	0.01	0.50
tblFleetMix	OBUS	6.6400e-004	0.00
tblFleetMix	SBUS	1.5050e-003	0.00
tblFleetMix	UBUS	3.1700e-004	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

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

tblSolidWaste	SolidWasteGenerationRate	1.24	0.00
tblVehicleTrips	CC_TL	7.30	1.00
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	5.00
tblVehicleTrips	SU_TR	5.09	5.00
tblVehicleTrips	WD_TR	3.93	5.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

FM Ingredients - San Joaquin Valley Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Highest

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.4000e-004	0.0147	9.2800e-003	4.0000e-005	8.2000e-004	4.0000e-005	8.6000e-004	2.4000e-004	4.0000e-005	2.7000e-004	0.0000	3.4158	3.4158	4.0000e-005	5.2000e-004	3.5722
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.4000e-004	0.0147	9.2800e-003	4.0000e-005	8.2000e-004	4.0000e-005	8.6000e-004	2.4000e-004	4.0000e-005	2.7000e-004	0.0000	3.4158	3.4158	4.0000e-005	5.2000e-004	3.5722

FM Ingredients - San Joaquin Valley Air Basin, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.4000e-004	0.0147	9.2800e-003	4.0000e-005	8.2000e-004	4.0000e-005	8.6000e-004	2.4000e-004	4.0000e-005	2.7000e-004	0.0000	3.4158	3.4158	4.0000e-005	5.2000e-004	3.5722
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.4000e-004	0.0147	9.2800e-003	4.0000e-005	8.2000e-004	4.0000e-005	8.6000e-004	2.4000e-004	4.0000e-005	2.7000e-004	0.0000	3.4158	3.4158	4.0000e-005	5.2000e-004	3.5722

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	6/22/2022	11/8/2022	5	100	

Acres of Grading (Site Preparation Phase): 0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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

Unmitigated Construction On-Site

[illegible]

Unmitigated Construction Off-Site

[illegible]

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

Mitigated Construction On-Site

[illegible]

Mitigated Construction Off-Site

[illegible]

FM Ingredients - San Joaquin Valley Air Basin, Annual

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.4000e-004	0.0147	9.2800e-003	4.0000e-005	8.2000e-004	4.0000e-005	8.6000e-004	2.4000e-004	4.0000e-005	2.7000e-004	0.0000	3.4158	3.4158	4.0000e-005	5.2000e-004	3.5722
Unmitigated	6.4000e-004	0.0147	9.2800e-003	4.0000e-005	8.2000e-004	4.0000e-005	8.6000e-004	2.4000e-004	4.0000e-005	2.7000e-004	0.0000	3.4158	3.4158	4.0000e-005	5.2000e-004	3.5722

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	5.00	5.00	5.00	1,820	1,820
Total	5.00	5.00	5.00	1,820	1,820

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	0.00	1.00	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

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

Unmitigated

[illegible]

Mitigated

[illegible]

FM Ingredients - San Joaquin Valley Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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

[illegible]

Unmitigated

[illegible]

FM Ingredients - San Joaquin Valley Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail**7.1 Mitigation Measures Water**

FM Ingredients - San Joaquin Valley Air Basin, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

FM Ingredients - San Joaquin Valley Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

FM Ingredients - San Joaquin Valley Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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FM Ingredients - San Joaquin Valley Air Basin, Annual

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
----------------	--------

11.0 Vegetation

FM Ingredients - San Joaquin Valley Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**FM Ingredients****San Joaquin Valley Air Basin, Summer****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2023
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MWhr)	607.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - truck loading/unloadin zone 50 ft x20 ft to get a trip rate of 5 trucks per day (5 trips/1k sq ft = 5)

Construction Phase -

Off-road Equipment - Operations only

Vehicle Trips - only the first mile for C-C trips

Fleet Mix - 50-50 MHD and HHD

Consumer Products - Trucks only

Area Coating - trucks only

Landscape Equipment - trucks only

Energy Use - trucks only

Water And Wastewater - trucks only

Solid Waste - trucks only

FM Ingredients - San Joaquin Valley Air Basin, Summer

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

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	500	0
tblAreaCoating	Area_Nonresidential_Interior	1500	0
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	2.70	0.00
tblEnergyUse	NT24E	4.16	0.00
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24E	1.75	0.00
tblEnergyUse	T24NG	16.86	0.00
tblFleetMix	HHD	0.03	0.50
tblFleetMix	LDA	0.51	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.8800e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.17	0.00
tblFleetMix	MH	3.7190e-003	0.00
tblFleetMix	MHD	0.01	0.50
tblFleetMix	OBUS	6.6400e-004	0.00
tblFleetMix	SBUS	1.5050e-003	0.00
tblFleetMix	UBUS	3.1700e-004	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

FM Ingredients - San Joaquin Valley Air Basin, Summer

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

tblSolidWaste	SolidWasteGenerationRate	1.24	0.00
tblVehicleTrips	CC_TL	7.30	1.00
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	5.00
tblVehicleTrips	SU_TR	5.09	5.00
tblVehicleTrips	WD_TR	3.93	5.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

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

Unmitigated Construction

[illegible]

FM Ingredients - San Joaquin Valley Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.7200e-003	0.0782	0.0499	2.0000e-004	4.6300e-003	2.1000e-004	4.8300e-003	1.3300e-003	2.0000e-004	1.5300e-003		20.6252	20.6252	2.3000e-004	3.1500e-003	21.5690
Total	3.7300e-003	0.0782	0.0500	2.0000e-004	4.6300e-003	2.1000e-004	4.8300e-003	1.3300e-003	2.0000e-004	1.5300e-003		20.6254	20.6254	2.3000e-004	3.1500e-003	21.5692

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.7200e-003	0.0782	0.0499	2.0000e-004	4.6300e-003	2.1000e-004	4.8300e-003	1.3300e-003	2.0000e-004	1.5300e-003		20.6252	20.6252	2.3000e-004	3.1500e-003	21.5690
Total	3.7300e-003	0.0782	0.0500	2.0000e-004	4.6300e-003	2.1000e-004	4.8300e-003	1.3300e-003	2.0000e-004	1.5300e-003		20.6254	20.6254	2.3000e-004	3.1500e-003	21.5692

FM Ingredients - San Joaquin Valley Air Basin, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	6/22/2022	11/8/2022	5	100	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

FM Ingredients - San Joaquin Valley Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Building Construction - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

FM Ingredients - San Joaquin Valley Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Building Construction - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

FM Ingredients - San Joaquin Valley Air Basin, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.7200e-003	0.0782	0.0499	2.0000e-004	4.6300e-003	2.1000e-004	4.8300e-003	1.3300e-003	2.0000e-004	1.5300e-003		20.6252	20.6252	2.3000e-004	3.1500e-003	21.5690
Unmitigated	3.7200e-003	0.0782	0.0499	2.0000e-004	4.6300e-003	2.1000e-004	4.8300e-003	1.3300e-003	2.0000e-004	1.5300e-003		20.6252	20.6252	2.3000e-004	3.1500e-003	21.5690

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	5.00	5.00	5.00	1,820	1,820
Total	5.00	5.00	5.00	1,820	1,820

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	0.00	1.00	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000

FM Ingredients - San Joaquin Valley Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.0 Energy Detail**

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

FM Ingredients - San Joaquin Valley Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

FM Ingredients - San Joaquin Valley Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

FM Ingredients - San Joaquin Valley Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail**7.1 Mitigation Measures Water**

FM Ingredients - San Joaquin Valley Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

FM Ingredients - San Joaquin Valley Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**FM Ingredients****San Joaquin Valley Air Basin, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2023
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MWhr)	607.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - truck loading/unloadin zone 50 ft x20 ft to get a trip rate of 5 trucks per day (5 trips/1k sq ft = 5)

Construction Phase -

Off-road Equipment - Operations only

Vehicle Trips - only the first mile for C-C trips

Fleet Mix - 50-50 MHD and HHD

Consumer Products - Trucks only

Area Coating - trucks only

Landscape Equipment - trucks only

Energy Use - trucks only

Water And Wastewater - trucks only

Solid Waste - trucks only

FM Ingredients - San Joaquin Valley Air Basin, Winter

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

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	500	0
tblAreaCoating	Area_Nonresidential_Interior	1500	0
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	2.70	0.00
tblEnergyUse	NT24E	4.16	0.00
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24E	1.75	0.00
tblEnergyUse	T24NG	16.86	0.00
tblFleetMix	HHD	0.03	0.50
tblFleetMix	LDA	0.51	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.8800e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.17	0.00
tblFleetMix	MH	3.7190e-003	0.00
tblFleetMix	MHD	0.01	0.50
tblFleetMix	OBUS	6.6400e-004	0.00
tblFleetMix	SBUS	1.5050e-003	0.00
tblFleetMix	UBUS	3.1700e-004	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

FM Ingredients - San Joaquin Valley Air Basin, Winter

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

tblSolidWaste	SolidWasteGenerationRate	1.24	0.00
tblVehicleTrips	CC_TL	7.30	1.00
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	5.00
tblVehicleTrips	SU_TR	5.09	5.00
tblVehicleTrips	WD_TR	3.93	5.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

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

Unmitigated Construction

[illegible]

Mitigated Construction

[illegible][illegible]

FM Ingredients - San Joaquin Valley Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.3300e-003	0.0838	0.0525	2.0000e-004	4.6300e-003	2.1000e-004	4.8400e-003	1.3300e-003	2.0000e-004	1.5300e-003		20.8340	20.8340	2.2000e-004	3.1800e-003	21.7884
Total	3.3400e-003	0.0838	0.0526	2.0000e-004	4.6300e-003	2.1000e-004	4.8400e-003	1.3300e-003	2.0000e-004	1.5300e-003		20.8343	20.8343	2.2000e-004	3.1800e-003	21.7887

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.3300e-003	0.0838	0.0525	2.0000e-004	4.6300e-003	2.1000e-004	4.8400e-003	1.3300e-003	2.0000e-004	1.5300e-003		20.8340	20.8340	2.2000e-004	3.1800e-003	21.7884
Total	3.3400e-003	0.0838	0.0526	2.0000e-004	4.6300e-003	2.1000e-004	4.8400e-003	1.3300e-003	2.0000e-004	1.5300e-003		20.8343	20.8343	2.2000e-004	3.1800e-003	21.7887

FM Ingredients - San Joaquin Valley Air Basin, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	6/22/2022	11/8/2022	5	100	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

FM Ingredients - San Joaquin Valley Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Building Construction - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

FM Ingredients - San Joaquin Valley Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Building Construction - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

FM Ingredients - San Joaquin Valley Air Basin, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.3300e-003	0.0838	0.0525	2.0000e-004	4.6300e-003	2.1000e-004	4.8400e-003	1.3300e-003	2.0000e-004	1.5300e-003		20.8340	20.8340	2.2000e-004	3.1800e-003	21.7884
Unmitigated	3.3300e-003	0.0838	0.0525	2.0000e-004	4.6300e-003	2.1000e-004	4.8400e-003	1.3300e-003	2.0000e-004	1.5300e-003		20.8340	20.8340	2.2000e-004	3.1800e-003	21.7884

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	5.00	5.00	5.00	1,820	1,820
Total	5.00	5.00	5.00	1,820	1,820

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	0.00	1.00	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000

FM Ingredients - San Joaquin Valley Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.0 Energy Detail**

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

FM Ingredients - San Joaquin Valley Air Basin, Winter

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

FM Ingredients - San Joaquin Valley Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

FM Ingredients - San Joaquin Valley Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail**7.1 Mitigation Measures Water**

FM Ingredients - San Joaquin Valley Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation
